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International Governance for Environmentally Sound Supply of Raw Materials – Policy Options and Recommendations

Final Report

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International Governance for Environmentally Sound Supply of Raw Materials – Policy Options and Recommendations

Final Report

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Abstract

Mineral extraction activities can have significant impacts on the environment during all stages of the life cycle of a mine, from exploration to construction and operation, and up to closure. Impacts also occur along the value chain of raw materials, including processing, treatment and transport. With the demand for raw materials increasing worldwide and value chains spreading across different countries, international approaches can contribute to making mineral extraction adhere to environmental standards. This research report addresses how Germany can contribute, through international governance, to reduce the environmental impacts of mining activities outside its territory. It provides a stocktake of existing governance approaches at the international level or with transboundary effect. It then develops specific policy options and recommendations for the German federal government to strengthen international governance for an environmentally sound supply of raw materials. The scope included the extraction of abiotic raw materials up to processing and smelting. In terms of impacts, it included social impacts where they are linked to the environment.

Kurzbeschreibung

In allen Phasen des Bergbaus, also von der Erkundung über Errichtung und Betrieb bis hin zur Stilllegung, ist die Rohstoffgewinnung mit erheblichen Auswirkungen auf die Umwelt verbunden. Solche Auswirkungen treten auch entlang der Wertschöpfungskette auf, also etwa bei der Verarbeitung, der Behandlung und beim Transport. Da die Nachfrage nach Rohstoffen weltweit steigt und sich die Wertschöpfungsketten über verschiedene Länder erstrecken, können vorrangig internationale Ansätze zur Einhaltung von Umweltstandards bei den unterschiedlichen Rohstoffaktivitäten beitragen. Dieser Forschungsbericht zeigt Möglichkeiten auf, wie Deutschland auf internationaler Ebene zur Verringerung der Umweltauswirkungen von Bergbauaktivitäten in den Herkunftsstaaten beitragen kann. Er beginnt mit einer Bestandsaufnahme bestehender Governance-Ansätze auf internationaler Ebene oder mit grenzüberschreitender Wirkung. Darauf aufbauend werden konkrete Handlungsoptionen und Empfehlungen für die Bundesregierung zur Stärkung der internationalen Governance für eine umweltgerechte Rohstoffversorgung aufgezeigt. Dabei steht die Gewinnung, Verarbeitung und Verhüttung abiotischer Rohstoffe im Vordergrund. Neben den Umweltauswirkungen wurden auch solche sozialen Auswirkungen berücksichtigt, die einen Umweltbezug haben.

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List of Abbreviations

Abbreviation	Full Name
3TG	Tin, Tantalum, Tungsten, Gold
AA	Aluminium Association
ABS	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization
ACTO	Amazon Cooperation Treaty Organization
AGC	Artisanal Gold Council
APM	Africa Precious Metals
ARM	Alliance for Responsible Mining
Art.	Article
ASEAN	Association of Southeast Asian Nations
ASGM	Artisanal and Small-Scale Gold Mining
ASI	Aluminium Stewardship Initiative
ASM	Artisanal and Small-Scale Precious Metal Mining Sector
ATCM	Antarctic Treaty Consultative Meeting
ATS	Alien Tort Statute
BAT	Best Available Techniques
BCCC	Basel Convention Coordinating Centre for Latin America and the Caribbean Region
BCM	Botswana Chamber of Mines
BEP	Best Environmental Practice
BGI	Better Gold Initiative
BGR	Bundesanstalt für Geowissenschaften und Rohstoffe (Federal Agency for Geosciences and Natural Resources, Germany)
BImSchG	Bundes-Immissionsschutzgesetz (Federal Emission Control Act, Germany)
Biokraft-NachV	Biokraftstoff-Nachhaltigkeitsverordnung (Biofuel Sustainability Ordinance, Germany)
CAEM	Argentinean Chamber of Mining Entrepreneurs
CAFTA	Central American Free Trade Agreement
CBD	Convention on Biological Diversity
CEEC	Centre for Evaluation, Expertise and Certification
CEP	Committee for Environmental Protection
CESCR	Committee on Economic, Social and Cultural Rights
CETA	Comprehensive Economic and Trade Agreement
cf.	compare (confer)
CFS	Conflict-Free Smelter Program

Abbreviation	Full Name
CFSI	Conflict-Free Sourcing Initiative
CFTI	Conflict-free Tin Initiative
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMA	Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement
CMIC	Canadian Mining Innovation Council
CMS	Convention on Migratory Species
CoC	Chain of Custody
COCERTI	Commission de Certification
COI	Community of Interest
COMESA	Common Market for Eastern and Southern Africa
COP	Conference of the Parties
COP-MOP	COP to the Cartagena Protocol
CRAMRA	Minerals Convention
CRIC	Committee for the Review of Implementation of the Convention
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
CST	Committee on Science and Technology
CTC	Certified Trading Chains
CTE	Committee on Trade and Environment
DDS	due diligence system
DFA	Dodd-Frank Act
Doc.	document
DRC	Democratic Republic of the Congo
DSU	Dispute Settlement Understanding
e.g.	exempli gratia (for example)
EAA	European Aluminium Association
EC	European Commission
ECCJ	European Coalition for Corporate Justice
ECJ	European Court of Justice
ed.	editor
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EITI	Extractive Industries Transparency Initiative

Abbreviation	Full Name
EMMP	Environmental Management and Monitoring Program
EMS	Environmental Management Systems
EnergieStG	Energiesteuergesetz (German Federal Energy Tax Act, Germany)
ESF	Environmental and Social Framework (World Bank)
ESPSs	Environmental and Social Performance Standards
ESTMA	Extractive Sector Transparency Measures Act
et seq.	et sequential (and those which follow)
EU	European Union
EU ETS	EU Emissions Trading System
FBME	Federal Bank of the Middle East
FET	Fair and Equitable Treatment
FLEGT	Forest Law Enforcement, Governance and Trade
FLO	Fairtrade Labelling Organizations International
FM	Fairmined
FT	Fairtrade
FT/FM	Fairtrade & Fairmined (standard)
FTA	Free Trade Agreement
GAC	Global Affairs Canada
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GEF	Global Environment Facility
GEF-AGC	Global Environment Facility - Artisanal Gold Council
GHG	Greenhouse Gas
GMI	Global Mining Initiative
GPA	Government Procurement Agreement
GPP	Green Public Procurement
GPR	Code of Good Regulatory Practice
GRI	Global Reporting Initiative
GWB	Gesetz gegen Wettbewerbsbeschränkungen (Act against Restraints of Competition, Germany)
HRC	Human Rights Committee
i.e.	id est (that is to say)
IAI	International Aluminium Institute
IAO	Internationale Arbeitsorganisation (International Labour Organisation)
ICAO	International Civil Aviation Organisation

Abbreviation	Full Name
ICCM	International Council of Metals and Mining
ICCPR	International Covenant on Civil and Political Rights
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICGLR	International Conference on the Great Lakes Region
ICJ	International Court of Justice
ICMM	International Council of Mining and Metals
ICOMOS	International Council on Monuments and Sites
ICSID	International Centre for Settlement of Investment Disputes
IIA	International Investment Agreement
ILC	International Law Commission
ILO	International Labour Organization
ILO C	ILO Convention
ILUC	Indirect Land-Use Change
IMO	International Maritime Organisation
INC	Intergovernmental Negotiating Committee
IOM	International Organisation of Migration
IPCC	Intergovernmental Panel on Climate Change
ISA	International Seabed Authority
ISDS	Investor-state dispute settlement
ISO	International Organization for Standardization
ISO	International Standardization Organization
ITLOS	International Tribunal for the Law of the Sea
ITRI	Industrial Technology Research Institute
iTSCi	ITRI Supply Chain Initiative
IUCN	International Union for Conservation of Nature
LBMA	London Bullion Market Association
LMO	Living modified organisms
LPPM	London Platinum and Palladium Market
LULUCF	Land Use, Land Use Change and Forestry Regulation
MABC	Mining Association of British Columbia
MAC	Mining Association of Canada
MARPOL	International Convention for the Prevention of Pollution from Ships
MEA	Multilateral Environmental Agreement

Abbreviation	Full Name
MIA	Mercury Initial Assessment
MINAM	Ministry of Environment (Peru)
MINEM	Ministry of Energy and Mines (Peru)
MINSA	Ministry of Health (Peru)
MIS	Management Information System
MMSD	Mining, Minerals and Sustainable Development
MSR	Marine Scientific Research
NAFTA	North American Free Trade Agreement
NAP	National Action Plans (Peru)
NDCs	Nationally-Determined Contributions
NGO	Non-Governmental Organization
NHRI	National human rights institute
No.	number
npr PPM	non-product-related Processes and Production Methods
NRCan	Natural Resources Canada
NRMMC	National Resource Management Ministerial Council (Australia)
NBSAP	National Biodiversity Strategies and Action Plan
OAS	Organization of American States
OECD	Organisation for Economic Co-operation and Development
OECD DD	OECD Due Diligence Guidance
OEFA	Agency for Environmental Assessment and Enforcement (Peru)
OHCHR	Office of the UN High Commissioner for Human Rights
para.	Paragraph
PDAC	Prospector's and Developer's Association of Canada
PPMs	Process and Production Methods
PRAIS	Performance Review and Assessment of Implementation System
PRODUCE	Ministry of Production (Peru)
prPPM	product-related Processes and Production Methods
Q&A	Questions & Answers
QMA	Québec Mining Association
QMS	Quality Management System
RCM	Regional Certification Mechanism
RED	Renewable Energy Directive 2009/29/EU
REINFO	Mining Formalization Registry

Abbreviation	Full Name
RINR	Regional Initiative against the Illegal Exploitation of Natural Resources
RJC	Responsible Jewellery Council
RMAP	Responsible Minerals Assurance Process
RRTWG	Resource Revenue Transparency Working Group (Canada)
SAEISSCAM	Service for Assistance and Organisation of Artisanal and Small-scale Mining
SBGA	Swiss Better Gold Association
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SDG	Sustainable Development Goal
SEA Protocol	Protocol on strategic environmental assessment
SEA	Strategic Environment Assessment
SEC	Security and Exchange Commission
SGPs	Safeguard Policies (World Bank)
SME	Small and medium-sized enterprise
SPSs	Social Performance Standards
SRPP	Socially responsible public procurement
SUNAT	Peruvian National Superintendence of Customs and Tax Administration (Peru)
SWD	Staff Working Document (of the European Commission)
TBT	Agreement on Technical Barriers to Trade
TFEU	Treaty on the Functioning of the European Union
TPR	Trade Policy Review
TRIPS	Trade-Related Aspects of Intellectual Property Rights
TSD	Trade and Sustainable Development
TSM	Towards Sustainable Mining
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNCITRAL	United Nations Commission on International Trade Law
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGPs	UN Guiding Principles on Business and Human Rights

Abbreviation	Full Name
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UNTS	United Nations Treaty Series
US	United States (of America)
VgV	Vergabeverordnung (Public Tender Regulation, Germany)
Vol.	Volume
VPA	Voluntary Partnership Agreement
WMI	Canadian Whitehorse Mining Initiative
WP	Work Package
WTO	World Trade Organisation
ZEE	Ecological-Economic Zoning

Summary

This research report addresses how Germany can contribute, through international governance, to reduce the **environmental impacts of mining activities** outside its territory. Mineral extraction activities can have significant impacts on the environment during all stages of the life cycle of a mine, from exploration to construction and operation, and up to closure. Impacts also occur along the value chain of raw materials, including processing, treatment and transport. With the demand for raw materials increasing worldwide and value chains spreading across different countries, international approaches can contribute to making mineral extraction adhere to environmental standards.

The report provides a **stocktake of existing governance** approaches at the international level or with transboundary effect, which have been agreed at the beginning of the project depending on their relevance. It **then develops specific policy options and recommendations** for the German federal government to strengthen international governance for an environmentally sound supply of raw materials. The scope included the extraction of abiotic raw materials up to processing and smelting. In terms of impacts, it included social impacts where they are linked to the environment.

The **stocktake** provides an assessment of whether and how these mechanisms contribute to furthering environmental and social standards for resource extraction, processing and transport. It analyses selected governance instruments in international law, non-binding international standards that specifically address mining activities, and novel examples of national and European law that make enterprises accountable for activities in other countries and in this sense have extraterritorial effects. The stocktake is complemented by case studies to gather experience in implementing the different instruments. We use a standardised approach and set of assessment criteria that are slightly modified for the different categories of governance instruments.

Building on the stocktake and assessment, the report develops specific **policy options and recommendations** for the German federal government to promote, establish and implement global standards for environmentally sound mining. They are based on conceptual entry points which include legally binding instruments, non-binding standards as well as international and bilateral cooperation, with particular attention to European and national legislation with extraterritorial effects.

Stocktake: International law

Among the binding international law obligations, emerging principles and concepts assessed in this report, there are almost no obligations specifically relating to mining in the territory of a state. There are **few binding international law obligations that specifically address mining activities**. Most of the specific norms are restricted to certain geographical areas or resources.

As a starting point, the principle of permanent sovereignty over natural resources determines that sovereignty over territory includes the exclusive right to decide whether and how to access and exploit natural resources. However, the principle is not absolute but has to be exercised in accordance with other obligations, i.e. within the limits of e.g. environmental or investment law.

For specific geographical areas, the rules under the UN Convention on the Law of the Sea (UNCLOS) and its Implementing Agreement for the deep seabed form a comprehensive regulatory regime for mineral resources. The deep seabed and its resources are defined as “common heritage of mankind” and are not subject to sovereign rights. Mining activities have to be conducted in accordance with the Mining Code and social standards that are continuously developed by the International Seabed Authority. In the Antarctic, the Environmental Protocol of 1991 designates the Antarctica as a natural reserve and prohibits any activities relating to mineral resources except for scientific research.

With regard to specific resources, the Minamata Convention on mercury aims at phasing out mercury production completely and has the potential to reduce some environmental and health impacts. It uses a broad range of steering tools and is one of the few legal instruments that purposefully and explicitly

address non-parties by regulating trade with them. It also specifically addresses small and artisanal mining. As the Convention has only recently entered into force, its effectiveness will depend largely on implementing decisions and guidelines to be developed.

The Espoo Convention establishes cross-cutting obligations for environmental impact assessment of mining activities, including procedural details. However, it only applies to activities that are likely to cause significant adverse transboundary impacts and currently only applies to the UNECE countries that have ratified it.

The International Labour Organization (ILO) Convention 176 on Safety and Health in Mines, together with a non-binding implementing Recommendation, appears to be the only internationally agreed social standard for safety and health in mines as a workplace. However, oil and gas are excluded from the scope of ILO C176, and only 33 countries have joined the Convention so far.

While there are few specific binding obligations, **general environmental rights and obligations under international law virtually always also apply to mining**, although there are gaps:

The scope of customary obligations such as the duty to prevent transboundary harm and the duty to carry out an environmental impact assessment also covers mining activities. International environmental treaties such as the Biodiversity Convention (CBD), the UN Convention to Combat Desertification (UNCCD), the Paris Agreement on Climate Change, the World Heritage Convention, and the UNECE Water Convention all include mining activities in their different governance approaches.

The instruments show a **broad range of governance and steering tools**. The CBD, UNCCD and World Heritage Convention generally address a particular good such as biodiversity or soil. Other instruments use public information relating to pollutant releases. Some use procedural approaches such as environmental impact assessments (CBD, Espoo, customary obligation) or ex-ante planning processes (Paris Agreement, UNCCD). Principles such as common heritage of humankind establish some kind of international legal interest in the management of mineral resources, but so far focus on allocating access or benefits.

Just as the body of international environmental law does not provide comprehensive and coherent protection of the environment, its obligations do not comprehensively cover all environmental issues relating to mining. Steering tools of international treaties focus on the prevention of environmental impacts, while hardly any obligations provide for the rehabilitation of contaminated sites or closed mines. In addition, the impact of customary international law on mining is difficult to ascertain because legal status, normative content, or both are often not established, unclear or abstract.

To which extent **human rights and labour standards** contribute to environmentally sound extraction supply of raw materials is difficult to ascertain:

Human rights standards have to some extent been interpreted to include environmental protection, notably where environmental conditions affect human health, but so far there is no established general right to a decent environment. The issue of whether human rights treaties can be applied extra-territorially is relevant particularly for transboundary pollution and also to enforcing human rights abroad, but remains unresolved.

The labour standards included in ILO Convention 148 apply generally on hazards in the working environment relating to air pollution, noise and vibration. As with ILO C176, participation in ILO C148 is not widespread with 46 parties. In addition, there is a high imbalance towards Europe with regard to ratification.

International trade and investment law is mainly a potential impediment to environmental and social standards. The WTO system basically does not require such standards but instead determines to what extent states may be permitted to set them:

Because its rules impose limits on domestic regulation of trade in goods, the General Agreement on Tariffs and Trade (GATT) can limit a country's options for making the production of natural resources more sustainable. In view of the comparatively strong dispute settlement mechanism States might be reluctant to consider binding rules in this area in order to avoid problems with trade. However, the practical effects of the GATT in regulating the production of and trade in natural resources are not clear, because there are unresolved questions of interpretation and empirical effects of international economic law on national politics are difficult to ascertain.

International investment agreements often impose limits on domestic regulation of foreign investment. Most agreements also contain a mechanism allowing foreign investors to bring claims for damages against the government of the host country for not complying with obligations under the agreement. Yet it is difficult to ascertain empirically whether these agreements have a chilling effect on national regulation. On the other hand, there are indications that certain elements in international investments agreements can actually be used to hold states accountable to existing environmental commitments. States are also starting to seek to obtain compensation from the investors for violations of the host state's environmental laws. However, considering that international investment agreements are normally aimed at promoting foreign investment, this is unlikely to become their main function.

Stocktake: International non-binding standards

In contrast to binding obligations between states, there is a considerable number of non-binding standards at the international level that specifically address mining. The instruments selected for this study show the high complexity and the wide range of different approaches and stakeholders addressed.

To help companies respect human rights and avoid contributing to conflicts through their mineral purchasing practice, the **OECD Due Diligence Guidance** has been developed in 2011 and been updated twice since. It recommends the adoption and implementation of a 5-step supply chain due diligence approach for minerals, which is most commonly applied for tin, tantalum, tungsten and gold. The guidance document has received widespread political support and has been incorporated into US and EU legislation on conflict minerals giving it legal effect.

The World Bank has adopted an **Environmental and Social Framework (ESF)** in order to manage environmental and social risks of projects it finances. As of October 2018 the ESF applies to all new World Bank investment project financing and consists of a set of requirements to ensure that certain minimum standards are implemented and complied with. As they are part of the World Bank's financing conditions, they are binding for projects and implementing partners. While the standards cover a wide range of environmental and social aspects, they are not applied in a uniform way for all projects. Instead, the identified risks and impacts of a project as well as the applicable national legal framework determine the standards. While the ESF is not sector-specific, it refers to general guidelines and industry-specific guidelines, e.g. for mining activities, that serve as technical reference documents.

Canada's Mining Association developed **Towards Sustainable Mining (TSM)** as a set of tools and indicators for responsible mining to be applied by its members. It allows companies to assess their management schemes to reduce risks from the operation and closure of mines. The assessment is done by the companies themselves, its results are published as well as verified and audited externally. TSM qualifies as industry standard that is specific for the mining industry and benefits from its transparency obligations and multi-stakeholder involvement. Since TSM has been set up in Canada, it has also been adopted by the respective associations in Finland, Botswana and Argentina.

The **FairMined and FairTrade** standards have been developed to promote responsible extraction procedures for the artisanal and small-scale mining sector (ASM) for precious metals. Miners that comply with a set of core and development requirements can apply for certification. If successful, they are guaranteed a certain price or even a financial premium in case no mercury or cyanide have been used

for extraction. While these guarantees are an incentive for miners to participate and apply for a certificate, the success strongly depends on the buyers' willingness to pay a higher price for sustainable metals.

The **Aluminium Stewardship Initiative (ASI)** is a voluntary global initiative of stakeholders along the bauxite and aluminium supply chain from mining to end-of-life. It developed a performance standard that aims at the certification of individual production facilities and a certification scheme for material. Both, the performance standard and the certification scheme address environmental issues such as greenhouse gas emissions, waste, water pollution and biodiversity, as well as social issues such as human rights, labour rights and occupational health and safety. While ASI has strong support from industry stakeholders, it remains unclear if it can stimulate positive change beyond its members.

Stocktake: Legal acts with extraterritorial effects

Legislators may choose to **put obligations on companies** regarding activities along the supply chain and in other countries. They establish duties of supply chain due diligence, duties to report and disclose information, financial incentives or product bans, and enforceable sanctions.

The **EU Conflict Minerals Regulation** is the only legal act which targets specifically the mining sector. It does not cover environmental impacts of mining, but establishes supply chain due diligence obligations for importers of four minerals – tin, tantalum, tungsten and gold – originating from conflict-affected and high risk areas. Importers have to identify and assess risks according to Annex II of the OECD Due Diligence Guidance – an obligation that renders the otherwise non-binding OECD standard binding. The supply-chain due diligence obligations are complemented by obligations to carry out third party audits and to publish reports on supply chain due diligence policies and practices on an annual basis. As the EU Conflict Minerals Regulation will come into effect in 2021, the effect it has on practices at extraction sites remains to be seen.

The **EU Directive on Corporate Social Responsibility (CSR Directive)** has a rather wide scope as it applies to large companies from all sectors and environmental as well as social risks. It requires, inter alia, the disclosure of information about due diligence policies implemented by a company and the outcomes of such policies. It does not, however, require companies to have such due diligence policies. Companies have to include the information in their management reports. Auditors check whether companies comply with this obligations, penalties may be imposed by Member States in case of infringements.

Mechanisms for enforcement are provided by the **US Alien Tort Statute** for violations of international law and by the **French Law on the Duty of Vigilance** for the violation of due diligence obligations established by the law itself. Both legal acts apply sector-wide, but may be of particular relevance for mineral activities. They give individuals – such as victims of human rights violation or environmental damages – access to civil litigation, allowing them to claim damages. However, in recent years US courts have interpreted the ATS quite restrictively and severely reduced its potential against non-US corporations.

These examples – another one being the EU Timber Regulation – show that despite complex value chains, it is **conceivable in principle to establish legal requirements relating to the environmental and social impacts of raw material extraction that occurs in other jurisdictions**. They also show ways of giving some legal effect to non-binding environmental and social standards, for instance by referring to such standards as a means to fulfilling a legal due diligence obligation. Finally, they demonstrate how obligations can be combined with civil litigation.

Case studies

The three case studies on experiences in implementing governance measures stemming from international law, non-binding standards and national law exemplify that assessing such measures is contingent on their context. It also shows to what extent incentives for enterprises are necessary in order for the measure to be effective, i.e. to make the measure contribute to environmentally sound mining.

For instance, **Certified Trading Chains (CTC)** is a certification scheme for mining companies which the German Federal Institute for Geosciences and Natural Resources helped to develop. It was made binding in the Democratic Republic Congo for certain minerals by ministerial order in 2012. The instrument is a response to the obligations on US enterprises regarding the import of so-called conflict minerals (tin, tantalum, tungsten and gold). In contrast to other certification schemes in that region, CTC goes beyond showing that the minerals are conflict free and also integrates environmental and social objectives. Because it includes criteria such as proof of an environmental impact assessment or work safety standards, CTC is de facto an approach to formalising small and artisanal mining, and its structure has features of a “premium standard”. When this ambitious standard was made binding in a fragile state, it became apparent that businesses as well as authorities did not have the planning and administrative capacity to implement it. The high costs for audits by independent auditors are one of the reasons why there is little incentive for companies to become certified. This is why only very few companies apply CTC.

The implementation of the **Minamata Convention** in Peru shows that international law can foster reform processes towards responsible mining practices. When Peru ratified the Minamata Convention in January 2016, it became apparent that the biggest challenge for successful implementation will be the informal artisanal and small-scale mining (ASM) sector, in which mercury is widely used to extract gold. Reducing mercury use is therefore closely linked to formalising ASM, which has made little progress in the last 20 years, despite several initiatives of the Peruvian government. Implementing the Minamata Convention could make an important contribution (not least because international support is of high importance to Peru), even though under the Convention Peru is only obliged to prepare and implement action plans. The first two years since ratification have shown a lack of ownership, coordination and the necessary technical expertise at the relevant government departments as well as at the mining enterprises concerned.

Policy options and recommendations

In order to develop policy options and recommendations, we first identified conceptual approaches to strengthening international governance for environmentally sound supply of raw materials. These **entry points** are clustered as follows:

Binding approaches

- ▶ International level
 - New and separate treaty
 - Strengthen existing treaty law or customary law
 - Incorporate rules into trade agreements
- ▶ National or EU level: Instruments with extraterritorial effects

Non-binding standards

- ▶ Integrate environmental aspects
- ▶ Expand geographical scope
- ▶ Develop new standard

Cooperation

- ▶ Bilateral cooperation
- ▶ International cooperation, in particular through institutions

The German federal government could pursue different **policy options**. While some of them require support from other countries and may only be realised long-term, others may be implemented short-term building on on-going processes. The clusters overlap and can also be combined. For instance, binding instruments can refer to non-binding standards and make them mandatory.

We identified the following options to strengthen existing **international legally binding instruments** or developing new ones:

- ▶ Pursuing a new stand-alone international treaty on mineral extraction could fill a gap in addressing sector-specific risks and impacts, but would require the government to put it on the international political agenda.
- ▶ In order to strengthen environmental impact assessments before mineral extraction activities, the German government could support the expansion of the Espoo-Convention beyond the UNECE area and seek to expand the scope of the customary duty to undertake an environmental impact assessment to mining activities with significant impacts within the territory of the country of origin.
- ▶ As the European Union is increasingly using free trade agreements to secure access to raw materials, the government could work via the Council to ensure negotiation directives given to the European Commission have a clear requirement to integrate environmental standards in future agreements.
- ▶ For international environmental treaties such as the UN Convention to Combat Desertification and the UNECE Convention on the Protection and Use of Transboundary Watercourses, the government could integrate aspects of mineral extraction in their implementation and further development by initiating the development of sector-specific guidelines.
- ▶ The government could promote the ratification of the ILO Convention on the Safety and Health of Mines especially by countries exporting raw materials to Germany, since it is a sector-specific instrument to strengthen the position of workers.

Options for new **non-binding international standards**:

- ▶ In light of the different approaches underlying the development of European and Chinese standards for mineral activities over recent years, the government could initiate an international process involving developing countries and emerging economies from all regions to develop a new world-wide non-binding mining standard.
- ▶ As more and more countries are joining the Extractive Industries Transparency Initiative (EITI) and report on financial issues around mineral extraction, the government could initiate discussions about the integration of environmental issues in such reports.
- ▶ With supply chains increasingly spreading across different countries, the government could initiate a standardisation process for a management standard at ISO level to promote information sharing about handling environmental risks.

Options to strengthen **bilateral and international cooperation**:

- ▶ As the government is updating its 2010 Raw Materials Strategy, it could extend the scope of raw material partnerships from securing access to raw materials to promoting export of mining-related technologies and services from German suppliers.
- ▶ To further support voluntary supply chain initiatives for responsible mining, the government could assist small and medium enterprises in identifying suitable standards and by funding innovative public-private partnerships between different players along the supply chain.
- ▶ To support developing countries and emerging economies in the implementation of promising instruments, the government could provide assistance and support for reforming national governance of raw material extraction.
- ▶ In order to address the lack of international approaches to rehabilitate legacy mines, the government could promote an international platform that supports developing countries in their rehabilitation efforts by prioritising sites and coordinating administrative, technical and financial support.

Recommendation to further explore opportunities for **legal acts with extraterritorial effects** and for **combining legal instruments with non-binding standards**:

- ▶ Taking into account the implementation and effectiveness of recent models for this regulatory approach, the government should further explore and assess possibilities to address environmental issues of mining activities through national or EU rules with extraterritorial effects.
- ▶ In order to cope with the complexity of the technical specifics and environmental effects of mining and to improve the effectiveness of new legal acts, the government should assess the regulatory option of integrating non-binding standards into extraterritorial legislation on due diligence.
- ▶ As mechanisms to improve efficiency of implementation and enforcement, the government should explore the suitability of a civil liability of downstream actors and the possibility of legal standing for plaintiffs from countries where mining activities take place.

Zusammenfassung

Dieser Forschungsbericht zeigt Governance-Ansätze auf, wie Deutschland auf internationaler Ebene zur Verringerung der **Umweltauswirkungen von Bergbauaktivitäten** in den Herkunftsstaaten beitragen könnte. In allen Phasen des Bergbaus, also von der Erkundung über Errichtung und Betrieb bis hin zur Stilllegung, ist die Rohstoffgewinnung mit erheblichen Auswirkungen auf die Umwelt verbunden. Solche Auswirkungen treten auch entlang der Wertschöpfungskette auf, also etwa bei der Verarbeitung, der Behandlung und beim Transport. Da die Nachfrage nach Rohstoffen weltweit steigt und sich die Wertschöpfungsketten über verschiedene Länder erstrecken, können internationale Ansätze zur Einhaltung von Umweltstandards bei den unterschiedlichen Rohstoffaktivitäten beitragen.

Der Bericht beginnt mit einer **Bestandsaufnahme von bestehenden Governance-Ansätzen** auf internationaler Ebene oder mit grenzüberschreitender Wirkung, die bei Beginn des Vorhabens zwischen dem Auftraggeber und dem Auftragnehmer nach Relevanz für den Untersuchungsgegenstand vorabgestimmt wurden. Darauf aufbauend werden konkrete Handlungsoptionen und Empfehlungen für die Bundesregierung zur Stärkung der internationalen Governance für eine umweltgerechte Rohstoffversorgung aufgezeigt. Dabei steht die Gewinnung, Verarbeitung und Verhüttung abiotischer Rohstoffe im Vordergrund. Neben den Umweltauswirkungen wurden auch sozialen Auswirkungen berücksichtigt, die einen Umweltbezug haben.

Die **Bestandsaufnahme** bewertet, inwiefern unterschiedliche Mechanismen zur Einhaltung von Umwelt- und Sozialstandards bei der Gewinnung, Verarbeitung und dem Transport von Rohstoffen beitragen. Hierzu werden völkerrechtliche Instrumente, unverbindliche internationale Bergbaustandards sowie neuere nationale und europäische Rechtsakte, die Unternehmen für ihre Aktivitäten in anderen Ländern zur Rechenschaft ziehen und in diesem Sinne extraterritoriale Wirkung haben, bewertet. Diese Bestandsaufnahme wird durch Fallstudien ergänzt, die Erfahrungen bei der Umsetzung der verschiedenen Instrumente, Standards und Rechtsakte beschreiben. Für die Bewertung der unterschiedlichen Instrumente, Standards und Rechtsakte haben wir einen standardisierten Ansatz mit einheitlichen Bewertungskriterien gewählt, der allerdings für die verschiedenen Kategorien von Governance-Ansätzen leicht modifiziert wurde.

Aufbauend auf der Bestandsaufnahme und Bewertung wurden konkrete **Handlungsoptionen und Empfehlungen** für die Bundesregierung zur Förderung, Schaffung und Umsetzung globaler Standards für eine umweltgerechte Rohstoffgewinnung erarbeitet. Diese lassen sich in unterschiedliche Kategorien, konkret in rechtsverbindliche Instrumente, unverbindliche Standards sowie internationale und bilaterale Zusammenarbeit, unterteilen. Ein besonderes Augenmerk wurde auf europäische und nationale Rechtsakte mit extraterritorialer Wirkung gelegt.

Bestandsaufnahme: Völkerrecht

Die in diesem Bericht bewerteten verbindlichen völkerrechtlichen Normen, Grundsätze und Konzepte etablieren kaum Verpflichtungen für den Bergbau, sofern dessen Auswirkungen auf das Gebiet des Herkunftslandes begrenzt bleiben. Es gibt zudem nur **wenige verbindliche völkerrechtliche Verpflichtungen, die sich speziell auf Bergbauaktivitäten beziehen**. Die meisten spezifischen Normen sind auf bestimmte geografische Gebiete oder bestimmte Rohstoffe beschränkt.

Als Ausgangspunkt umfasst das Prinzip der dauerhaften Souveränität über natürliche Ressourcen das Recht der Staaten, in ihrem Hoheitsgebiet über das ob und wie der Erschließung und Nutzung natürlicher Ressourcen zu entscheiden. Dieses Prinzip gilt jedoch nicht absolut, sondern kann nur unter Berücksichtigung anderen Verpflichtungen, unter anderem unter Berücksichtigung des internationalen Umwelt- oder Investitionsrechts, ausgeübt werden.

Für den Tiefseeboden etablieren die Regeln des Seerechtsübereinkommens der Vereinten Nationen (UN Convention on the Law of the Sea – UNCLOS) und des dazugehörigen Durchführungsübereinkommens ein umfassendes Regulierungssystem für mineralische Ressourcen. Der Tiefseeboden und seine Ressourcen werden als „gemeinsames Erbe der Menschheit“ definiert und unterliegen nicht der Souveränität einzelner Staaten. Bergbauaktivitäten müssen in Übereinstimmung mit den Vorgaben des „Mining Code“ sowie den von der Internationalen Meeresbodenbehörde kontinuierlich fortgeschriebenen Sozialstandards durchgeführt werden. Die Antarktis wird durch das Umweltprotokoll von 1991 als Naturschutzgebiet ausgewiesen, weshalb mit Ausnahme der wissenschaftlichen Forschung jegliche Rohstoffgewinnungsaktivitäten verboten sind.

Was den einzelnen Rohstoff betrifft, so zielt das Minamata-Übereinkommen auf die vollständige Einstellung der Quecksilberproduktion ab, wodurch negative Umwelt- und Gesundheitsauswirkungen verringert und letztlich beendet werden sollen. Es nutzt unterschiedliche Steuerungsinstrumente und ist eines der wenigen völkerrechtlichen Übereinkommen, das sich gezielt und explizit auch an Nicht-Vertragsstaaten richtet, indem es den Handel mit ihnen reguliert. Das Minamata-Übereinkommen befasst sich zudem speziell mit dem Einzel- und Kleinbergbau. Da es erst kürzlich in Kraft getreten ist, wird seine Wirksamkeit auch von den noch zu entwickelnden Entscheidungen und Leitlinien abhängen.

Das Espoo-Übereinkommen verpflichtet zur Durchführung einer Umweltverträglichkeitsprüfung für Bergbauaktivitäten und gibt die Verfahrensschritte vor. Es gilt jedoch grundsätzlich nur für solche Aktivitäten, die voraussichtlich erhebliche nachteilige grenzüberschreitende Auswirkungen haben. Es gilt zudem derzeit nur für die UNECE-Länder, die es ratifiziert haben.

Das Übereinkommen Nr. 176 der Internationalen Arbeitsorganisation (IAO) über den Arbeitsschutz im Bergbau scheint zusammen mit einer unverbindlichen Umsetzungsempfehlung der einzige völkerrechtliche Vertrag zur Gewährleistung von Sicherheit und Gesundheitsschutz in Bergwerken als Arbeitsplatz zu sein. Öl und Gas sind jedoch vom Anwendungsbereich des Übereinkommens ausgenommen. Zudem sind ihm bisher nur 33 Länder beigetreten.

Während es nur wenige spezifische verbindliche Verpflichtungen gibt, **gelten die allgemeinen Rechte und Pflichten des Umweltvölkerrechts praktisch immer auch für den Bergbau**, obwohl es Lücken gibt:

Der Umfang der völkergewohnheitsrechtlichen Verpflichtungen, wie etwa des Verbots erheblicher grenzüberschreitender Umweltbeeinträchtigungen und der Pflicht zur Durchführung einer Umweltverträglichkeitsprüfung, umfasst auch Bergbauaktivitäten. Die Instrumente internationaler Umweltabkommen wie der Biodiversitätskonvention (Biodiversity Convention – CBD), der UN-Konvention zur Bekämpfung der Wüstenbildung (UN Convention to Combat Desertification – UNCCD), dem Pariser Klimaabkommen, der UNESCO-Welterbekonvention und der UNECE-Wasserkonvention gelten auch für Bergbauaktivitäten.

Die völkerrechtlichen Verträge nutzen ein **breites Spektrum an Governance- und Steuerungsinstrumenten**. Die CBD, die UNCCD und die UNESCO-Welterbekonvention schützen je ein bestimmtes Umweltgut wie etwa die Biodiversität oder den Boden. Andere Verträge zielen auf die Bereitstellung öffentlicher Informationen über die Freisetzung von Schadstoffen. Wieder andere Verträge etablieren vorrangig Verfahren, wie das der Umweltverträglichkeitsprüfungen (CBD, Espoo, Völkergewohnheitsrecht) oder ex-ante-Planungsprozesse (Pariser Abkommen, UNCCD). Prinzipien wie das gemeinsame Erbe der Menschheit begründen eine Art internationales rechtliches Interesse an der Bewirtschaftung von Bodenschätzen, konzentrieren sich aber bisher auf die Zuweisung von Zugangs- oder Nutzungsrechten.

So wie das Umweltvölkerrecht grundsätzlich keinen umfassenden und kohärenten Schutz der Umwelt gewährleistet, adressiert es auch nicht alle Umweltauswirkungen des Bergbaus. Zudem konzentrieren sich die in internationalen Verträgen verankerten Instrumente auf die Vermeidung von Umweltauswirkungen, während kaum Verpflichtungen zur Sanierung von Altlasten oder stillgelegten Bergwerken

bestehen. Darüber hinaus ist die Steuerungswirkung völkergewohnheitsrechtlicher Normen und Prinzipien kaum verifizierbar, da der Rechtsstatus, der normative Inhalt oder beides oft nicht festgelegt, unklar oder abstrakt sind.

Inwieweit **Menschenrechte und Arbeitsschutzstandards** zur umweltgerechten Rohstoffgewinnung beitragen, ist schwer zu ermitteln:

Bisher gibt es kein allgemeines Recht auf eine saubere Umwelt. Allerdings werden Menschenrechte in gewissem Maße so ausgelegt, dass sie auch Umweltschutzbelange umfassen. Dies gilt insbesondere dann, wenn die Umweltbedingungen die menschliche Gesundheit beeinträchtigen. Die Frage, ob Menschenrechtsverträge extraterritorial angewendet werden können, ist insbesondere bei grenzüberschreitender Verschmutzung und auch bei der Durchsetzung von Menschenrechten im Ausland von Bedeutung, bleibt aber ungelöst.

Die in dem IAO-Übereinkommen Nr. 148 enthaltenen Arbeitsschutzstandards gelten allgemein für Gefahren in der Arbeitsumgebung in Bezug auf Luftverschmutzung, Lärm und Vibrationen. Wie beim IAO-Übereinkommen Nr. 176 ist die Unterstützung für das IAO-Übereinkommen Nr. C148 mit nur 46 Staaten nicht stark. Darüber hinaus stammt ein großer Teil der Ratifizierungen von den EU Mitgliedsstaaten.

Das **internationale Handels- und Investitionsrecht** stellt vor allem ein potenzielles Hindernis für Umwelt- und Sozialstandards dar. Das WTO-Recht verlangt von Staaten nicht, solche Standards zu setzen, sondern legt fest, inwieweit Staaten solche Standards etablieren dürfen:

Indem die Regeln des Allgemeinen Zoll- und Handelsabkommens (GATT) die inländische Regulierung des Warenverkehrs begrenzen, beschränken sie die Möglichkeit der Staaten, die Gewinnung von Rohstoffen nachhaltig zu gestalten. Angesichts des vergleichsweise starken Streitbeilegungsmechanismus besteht die Gefahr, dass sich Staaten mit verbindlichen Regeln in diesem Bereich zurückhalten, um Handelsprobleme zu vermeiden. Die praktischen Auswirkungen des GATT auf die Regulierung der Gewinnung von und des Handels mit natürlichen Ressourcen sind jedoch nicht klar, da es ungelöste Auslegungsfragen gibt und die empirischen Auswirkungen des internationalen Wirtschaftsrechts auf die nationale Politik schwer zu ermitteln sind.

Internationale Investitionsabkommen setzen der inländischen Regulierung ausländischer Investitionen oft Grenzen. Die meisten Abkommen enthalten unter anderem einen Mechanismus, der es ausländischen Investoren ermöglicht, Schadenersatzansprüche gegen die Regierung des Gastlandes geltend zu machen, wenn diese den Verpflichtungen aus dem Abkommen nicht nachkommt. Es ist jedoch empirisch schwer festzustellen, ob derartige Klauseln eine abschreckende Wirkung auf Regierungen haben. Andererseits gibt es Hinweise darauf, dass bestimmte Klauseln in internationalen Investitionsabkommen tatsächlich genutzt werden, um Staaten an bestehende Umweltverpflichtungen zu binden. Zudem verlangen Staaten zunehmend von Investoren eine Entschädigung für Verstöße gegen die Umweltgesetze des Gastlandes. Da internationale Investitionsabkommen jedoch in der Regel auf die Förderung ausländischer Investitionen abzielen, dürfte dies nicht zu ihrer Hauptfunktion werden.

Bestandsaufnahme: internationale unverbindliche Standards

Anders als bei den völkerrechtlichen Verpflichtungen für Staaten gibt es auf internationaler Ebene eine beträchtliche Anzahl von unverbindlichen Standards, die sich speziell mit dem Bergbau befassen. Die für diese Studie ausgewählten Instrumente zeigen die hohe Komplexität und das breite Spektrum der verschiedenen Ansätze und adressierten Akteure.

Um Unternehmen beim Schutz der Menschenrechte zu unterstützen und um zu vermeiden, dass Unternehmen durch die Beschaffung von Rohstoffen zu Konflikten beitragen, wurden 2011 die **OECD Leitsätze für die Erfüllung von Sorgfaltspflichten** erarbeitet und seither zweimal aktualisiert. Sie empfehlen Unternehmen ein 5-stufiges Konzept zur Umsetzung von Sorgfaltspflichten für Rohstoffe wie Zinn,

Tantal, Wolfram und Gold. Die Leitsätze haben eine breite politische Unterstützung erfahren und wurden zudem in den USA und der EU in die jeweilige Gesetzgebung zu Konfliktmineralien aufgenommen, wodurch sie nun auch Rechtswirkung entfalten.

Die Weltbank hat neue **Umwelt- und Sozialstandards (Environmental and Social Framework – ESF)** verabschiedet, um die ökologischen und sozialen Risiken der von ihr finanzierten Entwicklungsvorhaben zu reduzieren. Seit Oktober 2018 gelten diese Standards für alle neuen Investitionsprojekte der Weltbank und stellen sicher, dass bestimmte Mindeststandards gesetzt und eingehalten werden. Da sie Teil der Finanzierungsbedingungen der Weltbank sind, sind sie für Projekte und Durchführungspartner verbindlich. Die Standards decken ein breites Spektrum an Umwelt- und Sozialaspekten ab, werden aber nicht bei allen Projekten einheitlich angewendet. Stattdessen bestimmen die identifizierten Risiken und Auswirkungen eines Projekts sowie der anwendbare nationale Rechtsrahmen die Standards. Die Umwelt- und Sozialstandards der Weltbank sind zwar nicht branchenspezifisch, verweisen aber auf allgemeine und branchenspezifische Richtlinien, z.B. für Bergbauaktivitäten, die als technische Referenzdokumente dienen.

Mit dem Standard **Towards Sustainable Mining (TSM)** hat der kanadische Bergbauverband seinen Mitgliedern eine Reihe von Instrumenten und Indikatoren für einen verantwortungsvollen Bergbau zur Verfügung gestellt. Er ermöglicht den Unternehmen, ihre Managementsysteme zu bewerten, um die mit dem Betrieb und der Stilllegung von Bergwerken verbundenen Risiken zu verringern. Die Bewertung erfolgt durch die Unternehmen selbst, die Ergebnisse der Bewertung werden aber veröffentlicht und in regelmäßigen Abständen auch einem externen Audit unterzogen. TSM ist ein Industriestandard, der speziell für den Bergbausektor gilt und durch die Transparenzpflichten und die Einbeziehung mehrerer Interessengruppen an Glaubwürdigkeit gewonnen hat. Nachdem TSM in Kanada eingeführt wurde, haben auch die jeweiligen Verbände in Finnland, Botswana und Argentinien den Standard übernommen.

Die Standards **FairMined und FairTrade** wurden entwickelt, um verantwortungsvolle Gewinnungsverfahren für Edelmetalle im Einzel- und Kleinbergbau (Artisanal and Small-scale Mining – ASM) zu fördern. Bergleute, die eine Reihe von Anforderungen erfüllen, können eine Zertifizierung beantragen. Im Erfolgsfall wird ihnen ein bestimmter Preis oder sogar eine finanzielle Prämie garantiert, falls bei der Gewinnung weder Quecksilber noch Cyanid verwendet wurden. Zwar sind diese Garantien ein Anreiz für Bergleute, sich zu beteiligen und ein Zertifikat zu beantragen. Der Erfolg der Zertifizierungsstandards hängt allerdings stark von der Bereitschaft der Käufer ab, einen höheren Preis für nachhaltige Edelmetalle zu zahlen.

Die **Aluminium Stewardship Initiative (ASI)** ist eine freiwillige globale Initiative, die von unterschiedlichen Interessengruppen entlang der Bauxit- und Aluminiumlieferkette von der Gewinnung bis zum Recycling getragen ist. In ihrem Rahmen wurde ein Standard zur Zertifizierung von Aluminium entwickelt. Dieser deckt Umweltaspekte wie Treibhausgasemissionen, Abfall, Wasserverschmutzung und Biodiversität sowie soziale Aspekte wie Menschenrechte, Arbeitnehmerrechte, Gesundheit und Sicherheit am Arbeitsplatz ab. Während ASI von den Interessengruppen der Industrie stark unterstützt wird, bleibt unklar, ob die Initiative positive Veränderungen über die Mitglieder hinaus anregen kann.

Bestandsaufnahme: Rechtsakte mit extraterritorialer Wirkung

Der Gesetzgeber kann sich dafür entscheiden, **Unternehmen Verpflichtungen** in Bezug auf Aktivitäten entlang der Lieferkette und in anderen Ländern aufzuerlegen. Er kann die Akteure entlang der Lieferkette zur Sorgfalt sowie zur Berichts- und Offenlegung verpflichten, finanzielle Anreize schaffen, Produktverbote aussprechen und durchsetzbare Sanktionen einführen.

Die **EU-Verordnung zu Konfliktmineralien** ist der einzige Rechtsakt, der sich gezielt an den Bergbausektor richtet. Sie reguliert zwar nicht die Umweltauswirkungen des Bergbaus, legt aber Sorgfaltspflichten für Importeure von vier Mineralien – Zinn, Tantal, Wolfram und Gold – fest, die aus konfliktbehafteten

teten und Hochrisikogebieten stammen. Importeure müssen Risiken gemäß Anhang II der OECD Leitsätze für die Erfüllung von Sorgfaltspflichten identifizieren und bewerten – eine Verpflichtung, durch die die ansonsten unverbindlichen OECD-Leitsätze verbindlich werden. Die Sorgfaltspflichten entlang der Lieferkette werden durch die Verpflichtung ergänzt, jährlich Prüfungen durch Dritte durchzuführen und Berichte über ihre Sorgfaltspflichtenregelungen sowie deren Umsetzung zu veröffentlichen. Da die EU-Verordnung zu Konfliktmineralien erst im Jahr 2021 in Kraft tritt, bleibt abzuwarten, welche Auswirkungen sie auf die Praktiken in den Abbauländern hat.

Die **EU-Richtlinie zur sozialen Verantwortung der Unternehmen (CSR-Richtlinie)** hat einen recht breiten Anwendungsbereich, da sie zum einen für große Unternehmen aus allen Branchen und zum anderen sowohl für Umwelt- als auch für Sozialrisiken gilt. Die CSR-Richtlinie verlangt von Unternehmen unter anderem die Offenlegung von Informationen zu den eigenen Sorgfaltspflichtenregelungen sowie zur Anwendung dieser Regelungen. Sie verlangt hingegen nicht, dass Unternehmen überhaupt solche Sorgfaltspflichtenregelungen treffen. Unternehmen müssen die Informationen in ihrem Lagebericht aufnehmen. Ob sie dieser Verpflichtung nachkommen, wird von Wirtschaftsprüfern überprüft. Im Fall eines Verstoßes können die Mitgliedstaaten Sanktionen verhängen.

Spezielle Durchsetzungsmechanismen etabliert das amerikanische **Gesetz zur Regelung von ausländischen Ansprüchen (Alien Tort Statute – ATS)** für Verstöße gegen das Völkerrecht und das **Französische Gesetz über die Sorgfaltspflicht von Unternehmen** für die Verletzung der im Gesetz selbst festgelegten Sorgfaltspflichten. Beide Rechtsakte gelten branchenweit und können daher auch für Bergbauaktivitäten von Bedeutung sein. Sie geben Einzelpersonen – wie etwa Opfern von Menschenrechtsverletzungen oder Umweltschäden – Zugang zu zivilrechtlichen Streitbeilegungsverfahren und ermöglichen es ihnen, Schadenersatz zu verlangen. In den letzten Jahren haben die US-Gerichte das ATS jedoch zunehmend restriktiv ausgelegt und damit sein Potenzial zur Durchsetzung von Verstöße gegen das Völkerrecht gegenüber Nicht-US-Unternehmen stark reduziert.

Diese Beispiele – ein weiteres ist die EU-Holzverordnung – zeigen, dass es trotz komplexer Wertschöpfungsketten **grundsätzlich denkbar ist, rechtliche Anforderungen an die ökologischen und sozialen Auswirkungen der Rohstoffgewinnung zu formulieren, die in anderen Staaten auftreten**. Sie zeigen auch Möglichkeiten auf, unverbindlichen Umwelt- und Sozialstandards eine gewisse rechtliche Wirkung zu verleihen, z.B. durch Bezugnahme auf solche Standards als Referenzpunkt für den Umfang gesetzlicher Sorgfaltspflichten. Schließlich zeigen sie, wie Verpflichtungen für Unternehmen mit zivilrechtlichen Durchsetzungsmechanismen kombiniert werden können.

Fallstudien

Die drei Fallstudien zu Erfahrungen bei der Umsetzung von völkerrechtlichen Instrumenten, unverbindlichen Standards und nationalem Recht mit extraterritorialer Wirkung verdeutlichen, dass deren Wirksamkeit stark vom Kontext abhängt. Sie zeigen auch, dass Anreize für Unternehmen notwendig sind, um die Effektivität von Maßnahmen sicherzustellen und somit zu einem umweltfreundlichen Rohstoffabbau beizutragen.

Certified Trading Chains (CTC) ist ein Zertifizierungssystem für Bergbauunternehmen, an dessen Entwicklung die Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) mitgewirkt hat. In der Demokratischen Republik Kongo wurde es 2012 durch eine Anordnung des zuständigen Ministers für bestimmte Mineralien verbindlich gemacht. Das Zertifizierungssystem wurde als Reaktion auf die Verpflichtungen der US-Unternehmen bei der Einfuhr von so genannten Konfliktmineralien (Zinn, Tantal, Wolfram und Gold) eingeführt. Im Unterschied zu anderen Zertifizierungssystemen in dieser Region geht CTC über den Nachweis der Konfliktfreiheit der Mineralien hinaus und integriert auch ökologische und soziale Standards. Da es u.a. den Nachweis einer Umweltverträglichkeitsprüfung und die Einhaltung von Arbeitssicherheitsstandards fordert, ist CTC de facto ein Ansatz zur Formalisierung des Einzel- und Kleinbergbaus und weist Merkmale eines "Premium-Standards" auf. Nachdem das ehrgei-

zige Zertifizierungssystem verbindlich wurde, zeigte sich jedoch, dass weder Unternehmen noch Behörden über die zur Umsetzung notwendigen Kapazitäten verfügten. Die hohen Kosten für die Überprüfung durch unabhängige Auditoren sind ein Grund dafür, warum sich nur wenige Unternehmen zertifizieren lassen. Daher wenden nur sehr wenige Unternehmen das Zertifizierungssystem CTC an.

Die Umsetzung des **Minamata-Übereinkommens** in Peru zeigt, dass das Völkerrecht Reformprozesse in Richtung verantwortungsvoller Bergbaupraktiken fördern kann. Bei der Ratifizierung des Minamata-Übereinkommen durch Peru im Januar 2016 zeigte sich, dass die größte Herausforderung der Einzel- und Kleinbergbau (Artisanal and Small-scale Mining – ASM) sein wird, da die Verwendung von Quecksilber zur Goldgewinnung hier weit verbreitet ist. Bemühungen den Quecksilberverbrauch zu reduzieren sind daher eng mit der Formalisierung des Einzel- und Kleinbergbaus verbunden, die in den letzten 20 Jahren trotz mehrerer Initiativen der peruanischen Regierung wenig Fortschritte gemacht hat. Die Umsetzung des Minamata-Übereinkommens könnte hier einen wichtigen Beitrag leisten (nicht zuletzt, weil die internationale Unterstützung für Peru von großer Bedeutung ist), auch wenn Peru nach dem Übereinkommen nur verpflichtet ist, Aktionspläne zu erstellen und umzusetzen. Die ersten beiden Jahre nach der Ratifizierung haben gezeigt, dass es an Eigenverantwortung, Koordination und dem notwendigen technischen Fachwissen in den zuständigen Ministerien sowie in den betroffenen Bergbauunternehmen mangelt.

Handlungsoptionen und Empfehlungen

Um Handlungsoptionen und Empfehlungen zu entwickeln, haben wir zunächst konzeptionelle Ansätze zur Stärkung der internationalen Governance für eine umweltgerechte Rohstoffversorgung identifiziert. Die **Ansatzpunkte** lassen sich wie folgt kategorisieren:

Verbindliche Ansätze

- ▶ Internationale Ebene
 - Neuer und separater Vertrag
 - Stärkung von bestehendem Vertragsrecht oder Gewohnheitsrecht
 - Aufnahme von Regeln in Handelsabkommen
- ▶ Nationale oder EU-Ebene: Instrumente mit extraterritorialer Wirkung

Unverbindliche Normen

- ▶ Integration von Umweltaspekten
- ▶ Erweiterung des geographischen Anwendungsbereichs
- ▶ Entwicklung eines neuen Standards

Zusammenarbeit

- ▶ Bilaterale Zusammenarbeit
- ▶ Internationale Zusammenarbeit, insbesondere durch Institutionen

Die Bundesregierung könnte verschiedene **Handlungsoptionen** verfolgen. Während einige von ihnen Unterstützung aus anderen Ländern benötigen und nur langfristig realisiert werden können, können andere kurzfristig im Rahmen bereits laufender Prozesse umgesetzt werden. Die Ansatzpunkte überschneiden sich und können auch kombiniert werden. So können beispielsweise verbindliche Instrumente auf nicht verbindliche Normen verweisen und diese verbindlich machen.

Wir haben die folgenden Optionen identifiziert, um bestehende völkerrechtliche Instrumente zu stärken oder neue Instrumente zu entwickeln:

- ▶ Durch ein neues eigenständiges internationales Rohstoff-Übereinkommen könnte eine Lücke bei der Bewältigung sektorspezifischer Umweltrisiken und -auswirkungen geschlossen werden. Allerdings müsste die Bundesregierung ein solches auf die internationale politische Agenda setzen.

- ▶ Um das Instrument der Umweltverträglichkeitsprüfungen zu stärken, könnte die Bundesregierung die Ausweitung des Espoo-Übereinkommens über den UNECE-Raum hinaus unterstützen und versuchen, den Umfang der völkergewohnheitsrechtlichen Pflicht zur Durchführung einer Umweltverträglichkeitsprüfung auf Bergbauaktivitäten mit erheblichen Auswirkungen im Gebiet des Herkunftslandes auszudehnen.
- ▶ Da die Europäische Union zunehmend Freihandelsabkommen nutzt, um sich den Zugang zu Rohstoffen zu sichern, könnte die Bundesregierung über den Rat darauf hinwirken, dass der Europäischen Kommission erteilte Verhandlungsrichtlinien in Zukunft eine klare Verpflichtung zur Einbeziehung von Umweltstandards enthalten.
- ▶ Die Bundesregierung könnte die Umsetzung und Weiterentwicklung bestehender internationaler Umweltübereinkommen wie der UN-Konvention zur Bekämpfung der Wüstenbildung und der UNECE-Wasserkonvention im Hinblick auf die Auswirkungen der Rohstoffgewinnung vorantreiben, indem sie die Entwicklung sektorspezifischer Leitlinien anstößt.
- ▶ Da es sich um ein sektorspezifisches Instrument zur Stärkung der Position der Arbeitnehmer handelt, könnte die Bundesregierung die Ratifizierung des IAO-Übereinkommens Nr. 176 über den Arbeitsschutz im Bergbau vor allem durch Länder fördern, die Rohstoffe nach Deutschland exportieren.

Optionen für neue, **unverbindliche internationale Standards**:

- ▶ Angesichts der unterschiedlichen Ansätze, die den in den letzten Jahren entwickelten europäischen und chinesischen Standards für Rohstoffaktivitäten zugrunde liegen, könnte die Bundesregierung einen internationalen Prozess zur Erarbeitung eines neuen weltweiten, unverbindlichen Bergbaustandards, an dem Entwicklungs- und Schwellenländer aus allen Regionen beteiligt sind, anstoßen.
- ▶ Da immer mehr Länder der internationalen "Initiative für Transparenz in der Rohstoffwirtschaft" (Extractive Industries Transparency Initiative - EITI) beitreten und über finanzielle Fragen rund um die Mineralgewinnung berichten, könnte die Bundesregierung die Integration von Umweltfragen in solche Berichte vorantreiben.
- ▶ Da sich die Lieferketten zunehmend über verschiedene Länder erstrecken, könnte die Bundesregierung einen Standardisierungsprozess für eine Managementnorm auf ISO-Ebene einleiten, um den Informationsaustausch über den Umgang mit Umweltrisiken sicherzustellen.

Optionen zur Stärkung der **bilateralen und internationalen Zusammenarbeit**:

- ▶ Im Zuge der Überarbeitung der Rohstoffstrategie von 2010 könnte die Bundesregierung das Mandat der Rohstoffpartnerschaften von der Sicherung des Zugangs zu Rohstoffen auf die Förderung des Exports von deutschen bergbaubezogenen Technologien und Dienstleistungen ausweiten.
- ▶ Um freiwillige Lieferketteninitiativen für einen verantwortungsvollen Bergbau weiter zu unterstützen, könnte die Bundesregierung kleine und mittlere Unternehmen bei der Identifizierung geeigneter Standards und bei der Finanzierung innovativer öffentlich-privater Partnerschaften zwischen verschiedenen Akteuren entlang der Lieferkette unterstützen.
- ▶ Um die Umsetzung vielversprechender Instrumente in Entwicklungs- und Schwellenländer zu fördern, könnte die Bundesregierung Unterstützung bei nationalen Reformprozessen zur Rohstoffgovernance leisten.
- ▶ In Reaktion auf den Mangel an internationalen Ansätzen für die Sanierung stillgelegter Bergwerke könnte die Bundesregierung den Aufbau einer internationalen Plattform anstoßen, die Entwicklungsländer bei ihren Sanierungsbemühungen unterstützt, indem sie Standorte priorisiert und die administrative, technische und finanzielle Unterstützung koordiniert.

Empfehlung, das Potenzial von **Rechtsakten mit extraterritorialer Wirkung** und von der Verbindung von Rechtsakten mit unverbindlichen Standards weiter zu prüfen:

- ▶ Unter Berücksichtigung bisheriger Erfahrungen zu Umsetzung und Wirksamkeit sollte die Bundesregierung Möglichkeiten zur Regulierung von Umweltfragen im Zusammenhang mit Bergbauaktivitäten durch nationale oder europäische Rechtsakte mit extraterritorialer Wirkung weiter prüfen und bewerten.
- ▶ Um der technischen Komplexität und den weitreichenden Umweltauswirkungen des Bergbaus gerecht zu werden und die Wirksamkeit neuer Rechtsakte zu verbessern, sollte die Bundesregierung prüfen, inwiefern auf unverbindliche Standards zu Sorgfaltspflichten verwiesen werden kann.
- ▶ Um die Umsetzung der Rechtsakte effizienter zu machen und ihre Durchsetzung zu stärken, sollte die Bundesregierung die Eignung einer zivilrechtlichen Haftung nachgelagerter Akteure und die Möglichkeit, Klägern aus Bergbauländern Gerichtszugang zu gewähren, prüfen.

1 Introduction

1.1 Background

Mining activities have significant impacts on the environment. Looking at the value chain of raw materials, they occur not only at extraction but also at processing, treatment and transport. Also, mines affect the environment during all phases of their lifecycle from exploration, construction and operation to closure and post-closure. The most common environmental impacts are water pollution and soil contamination, threats to habitats and degradation of land, especially in open-cast mining, which often cannot be restored after completion of the mining activities. Extraction often leads to social impacts, in particular for the local population. While mining activities create jobs, extraction itself may cause water or air pollution that affects local communities. These risks are increased by rising global demand and weak enforcement of environmental and social standards e.g. in developing countries and emerging economies. Impacts of raw material extraction do not occur at the place where the commodities are actually utilised. Mining itself causes significant environmental impacts, but the value added is low. On the other side, the environmental impacts of manufacturing could be reduced. Countries importing raw materials, including Germany as one of the biggest importers of industrial metals, therefore have a special responsibility. International approaches are needed to reduce the environmental impacts of raw material extraction at a global scale. However, there is no comprehensive international law specifically on regulating extraction or pertinent environmental and social standards.

Germany has responded to these challenges with the Raw Materials Strategy of 2010 and Resource Efficiency Programme of 2012. The German Raw Materials Strategy stresses that a secure, sustainable and as far as possible transparent supply with raw materials can only be achieved through international cooperation and will be updated by autumn 2019. The German Resource Efficiency Programme aims to make the extraction and use of natural resources more sustainable and will be updated a second time by spring 2020. Also, the German government has worked in the G7/G8 and the G20 towards putting the sustainable supply with raw materials on the international agenda. In 2017, the G20 established a Resource Efficiency Dialogue to cooperate closely on implementation of the Sustainable Development Goals, to improve the scientific basis of resource efficiency policy, and to enhance knowledge exchange of policy options and good practice examples.

1.2 Objectives of the study

The research project's objective is to assess and further develop suitable governance instruments which can foster, establish and enforce global standards for environmentally sound raw material extraction. It analyses how international law and other international cooperation and policy instruments can be used to advance environmentally sound extraction of abiotic raw materials.

The study looks at abiotic raw materials (metals respectively ores, other mineral raw materials, fossil raw materials) and their extraction, treatment, transport and processing. The study aims at elaborating policy recommendations for the Federal Government on how better use can be made of international governance and international law to foster environmental and social standards in raw material supply.

The scope of this study focuses on abiotic resources, i.e. resources that do not originate from living beings (biotic resources) except if transformed into fossil resources. This comprises in particular metals, sand, gravel, potassium salts, quartz sand, and fossil raw materials.¹

¹ See UBA (2012), Glossar zum Ressourcenschutz, at 27.

1.3 Approach and Methodology

1.3.1 General approach and methodology

The study has two main parts:

- ▶ Stocktake and assessment of existing international law, soft law instruments, and national or European measures with extraterritorial effect, related to extraction of abiotic raw materials (Chapters 2 and 3)
- ▶ Specific policy options and recommendations (Chapters 4 and 5)

1.3.1.1 Methodology for the assessment of instruments

For the stocktake and assessment of existing international treaty law (Section 2.1.2), we developed a standardised approach and set of assessment criteria:

- ▶ Summary
 - Results of the analysis in a nutshell, with a focus on the relevance of the treaty for the environmental and social impacts of resource extraction, processing and transport
- ▶ Overview
 - Form and legal status
 - Objectives
 - Territorial scope
 - Type of steering tool
 - Regulatory, planning, information tools etc.
- ▶ Links to extraction, processing and transport of resources
 - Resources covered
 - Are abiotic resources covered?
 - Environmental and social impacts covered
 - Steps of the value chain covered
- ▶ Content
 - Relevant obligations for parties
 - Description and analysis of the main obligations of the treaty in general
 - Do these obligations address or otherwise have effects on the environmental and social impacts of resource extraction, processing and transport?
- ▶ Institutions, review and decision-making
 - Institutions
 - Reporting
 - Evaluation and review
 - Compliance procedures, remedies and dispute settlement procedures
 - Stakeholder and public involvement
- ▶ Assessment
 - Coherence with other international treaties and policies
 - Relationship to other treaties addressing similar issues etc.
 - Political weight of the instruments
 - Number of parties, absence of major players etc.
 - Consideration of small and medium-scale companies
 - Does the treaty address SMSCs?
 - Effectiveness
 - How does the treaty work in practice? Is it enforced?
 - How effective are the provisions relevant for the environmental and social impacts of resource extraction, processing and transport?
 - Political opportunities and good practice examples

- Are there political windows of opportunity to address the environmental and social impacts of resource extraction, processing and transport (e.g. in current COP discussions)?
- Are there elements in the treaty which can be considered “good practice” in the sense that they might be relevant for the development of policy options and recommendations (mainly because of their effects on the environmental and social impacts of resource extraction, but also if there are particularly innovative in general)

For ease of reference, references to “states” in this study also include the EU unless otherwise stated.²

In addition to the summary, a table at the beginning of each treaty gives an overview over the main results:

Table #: ### Convention (in force since ###)

Key aspects	Summary
Form and legal status	-/-
Objectives	-/-
Parties	-/-
Territorial scope	-/-
Resources covered	-/-
Stage of the value chain	-/-
Steering mechanisms	-/-
Political weight	-/-
Relevance	-/-

Source: Ecologic Institute

The criteria covered by the table correspond to the criteria in the text, except for the parties which are mentioned separately from the form and legal status. In addition to text description, the criterion “assessment” is assessed by the following qualitative scale:

+++	high
++	medium
+	low
0	no relevance

It has to be noted that the criterion “assessment” not only means that a particular treaty mitigates the environmental and social impacts of resource extraction, processing and transport in some way, but also that a particular treaty can enhance these impacts.

This uniform approach and set of criteria is also used for the stocktaking and assessment of soft law and standards (Section 2.2) and national and European instruments certain non-governmental instruments (Section 2.3), albeit with modifications where necessary.

For the stocktaking and assessment of principles of international law (within Section 2.1.1), the contractors developed a simplified approach containing the following criteria:

² Following the entry into force of the Treaty of Lisbon, cf. Articles 1, 3(2) and 47 Treaty of European Union (TEU), 216 Treaty on the Functioning of the Union (TFEU). According to Article 1 TEU, the EU replaced and succeeded the European Community (EC), which had entered into treaties prior to the Treaty of Lisbon.

- ▶ Development and content
- ▶ Status
- ▶ Applicability to abiotic resources and resource efficiency
- ▶ Assessment
- ▶ Summary

For selected instruments implementation and related challenges have been assessed in depth. These include:

- ▶ Convention on Biodiversity (see Section 2.1.2.8)
- ▶ Convention to Combat Desertification (see Section 2.1.2.10)
- ▶ EU Timber Regulation (see Section 2.3.1)

For those instruments, the assessment includes information about the implementation in selected countries as well as more information about mechanisms for implementation and enforcement.

An in-depth implementation analysis has also been provided for the soft law instruments (see Section 2.2.2).

1.3.1.2 Methodology for the case studies

In addition, the stocktake and assessment of existing international law, soft law instruments, and national or European measures with extraterritorial effect includes case studies (Section 2.4). For the case studies more flexibility was given as they assess different kinds of instruments and also different actors and regions. Nonetheless, all case studies provide answers to the following questions:

- ▶ Description of the instrument
- ▶ Experience with implementation of the instrument
- ▶ Specific problems and governance challenges
- ▶ Outlook and lessons learnt

1.3.2 Selection of instruments for the analysis

Based on the project's scope and available resources, the project pre-selected a number of treaties, principles, concepts and non-binding instruments for analysis.

The treaties and principles of international law to be analysed in Section 2.1 were chosen based on a presumptive screening of their potential relevance for the environmental and social impacts of resource extraction, processing and transport. They also represent different governance approaches: For example, the UNCLOS' provisions on the deep seabed are considered to be "the most developed international governance regime or regulatory framework for mineral resources activities".³ The Minamata Convention regulates one particular resource, including a specific provision on artisanal and small-scale mining. Some treaties were not selected because they were considered more relevant for a parallel research project for the Federal Environment Agency on options under public international law to increase resource efficiency.⁴ The three regional trade agreements (CETA, COMESA, EU-Colombia/Peru) – in their multilateral as well as in their bilateral occurrence – cover an extensive range of economic policies and can therefore serve as examples for a wide range of other trade agreements.

Currently, there are more than 40 different non-binding instruments relevant for mining activities.⁵ As there are overlaps between these instruments and also similar approaches taken, only five instruments have been selected for analysis in Section 2.2. These are the OECD Due Diligence Guidance, the

³ Dalupan (2004), at 10.

⁴ FKZ 3716 33 100 0.

⁵ Kickler and Franken (2017); Umsorress (2015).

World Bank Environmental and Social Framework, the Towards Sustainable Mining of Canada's Mining Association, the FairMined and FairTrade, as well as the Aluminium Stewardship Initiative. Their main focus areas are good governance, socio-economic contribution from mining and appropriate revenue management.

The selection of national and European legislation in Section 2.3 (*de lege lata*) takes into account that these legal acts either already allow environment-related and social aspects of the cultivation or extraction of raw materials (e.g. Timber Regulation (EU) No 995/2010, EU Public Procurement Directive 2014/95/EU, the Renewable Energy Directive 2009/28/EU) and/or demand general supply chain due diligence requirements or compliance with CSR from companies (e.g. French LOI n ° 2017-399 du 27 mars 2017, the CSR Directive 2014/95/EU, Timber Regulation (EU) No 995/2010, the Conflict Mineral Regulation (EU) 2017/821). Hence the analysis in Section 2.3 focuses on the options to apply these existing regulations on the extraction, processing and transport of abiotic raw materials, e.g. by extending the scope of the regulations or through the specification of instruments for mineral extraction (*de lege ferenda*).

The case studies in Section 2.4 analyse experiences in implementing governance measures in international law (i.e. the Minamata Convention), non-binding standards (i.e. the Towards Sustainable Mining commitment) and national law (i.e. the US Dodd Frank Act and the EU Conflict Minerals Regulation). They look at the national context for implementation of these instruments and the incentives that are necessary for enterprises.

For an in-depth implementation analysis that has been added to the profiles of the selected instruments, the Biodiversity Convention (see Section 2.1.2.8) and the UN Convention to Combat Desertification (see Section 2.1.2.10) were picked as two nearly universal international treaties that have mechanisms for mineral extraction without actually targeting mineral extraction. In addition, in Section 2.3, the EU Timber Regulation (see Section 2.3.1) was picked for the implementation analysis as it establishes supply chain due diligence obligations and has been in force long enough to draw first conclusions. Instead of analysing the implementation of selected non-binding standards, an overall analysis of implementation challenges related to such standards is given in Section 2.2.2.

2 Stocktake of existing approaches

This chapter takes stock of selected instruments of existing international law, soft law instruments, and National or European measures with extraterritorial effect, related to extraction of abiotic raw materials. It provides the analytical basis for the conceptual considerations in Chapter 4 as well as the identified policy options and recommendations in Chapter 5.

The stocktake is based on a broad understanding of international governance which includes binding as well as non-binding steering mechanisms. This includes primarily the three traditional sources of international law according to article 38 of the ICJ statute: treaties, customary law and general principles of law. Other elements of the international legal framework are not legally binding but nonetheless influence or provide guidance to States conduct. We include non-binding political steering mechanisms as well as global mechanisms that do not originate from state authority but have been picked up by public regulation or have similar steering effects. Moreover, selected national and European instruments with extraterritorial effect are taken into account. We analyse and assess whether and how these mechanisms contribute to further environmental and social standards for resource extraction, processing and transport.

2.1 International treaty law and customary law relevant to the extraction and trade of raw materials

The first part of the stocktake includes binding international law. Based on the traditional sources listed in Article 38 of the Statute of the International Court of Justice, this includes treaties, customary law, and general principles of law.

There are several international documents that address mining in a general manner and may be politically relevant for governance, but do not fall within the specific focus of this study on legal framework for governance. Some of these are recalled in the 2019 United Nations Environment Assembly (UNEA) resolution on minerals governance.⁶

The analysis in this part also includes aspects that are specific to international law because it is created differently from national law and has different enforcement mechanisms. Rules are agreed between peers and treaties apply only to those States that are Party to them. In contrast, customary law usually applies to all States regardless of whether they are a Party to, and bound by, a particular treaty.⁷ In addition, there is a range of non-binding mechanisms that may in practice have stronger political force than binding rules and sometimes be more strictly complied with. For instance, treaty regimes with permanent institutions frequently adopt decisions which are usually not binding in the strict legal sense but are in practice treated and complied with by the parties as the agreed rules for implementing the treaty. Assessing this field of such therefore also includes political aspects and practical experience.

2.1.1 Customary law and general principles of law

2.1.1.1 Relevance in general and use of terms

In addition to treaties, customary law is a source of international law binding upon states. It derives from “evidence of a general practice accepted as law” (Art. 38 ICJ Statute). In order to establish a norm of customary law, it has to be shown that there is sufficient state practice adhering to that rule, *and* that states accept it as legally binding. The third main source of international law, according to the ICJ

⁶ UNEA resolution „Mineral resource governance“, of 9 March 2019, UNEP/EA.4/L.23.

⁷ Except for so-called “persistent objectors”.

Statute, are “general principles of law recognised by civilized nations”, which – generally speaking – means norms that are so widely accepted in the world’s national legal systems that they also bind states in international law. An assessment of these sources involves several problems that have to be taken into account:

First, there is no single or authoritative list of customary law. Second, what constitutes sufficient state practice and how acceptance as law becomes manifest is itself subject to debate. Third, it can take a long period of time, sometimes years or decades, for a concept or proposed norm to evolve into customary law. Fourth, a norm may be enshrined in treaties whilst at the same time evolve into or exist as customary law. In some cases, decisions by the ICJ have ruled that certain norms are customary law. But in many cases the legal status of many proposed rules or concepts is not clear and subject to debate. States, stakeholders or academics may argue that a norm is already customary law, while others may argue that the existing state practice is not sufficient or that there is no conclusive evidence that states, even if they adhere to it in practice, accept to be *legally bound*.

Another important issue relates to terminology and the *content* of norms, in particular those of customary law. Some concepts and norms are labelled or invoked as “principles”, e.g. the “precautionary principle”. This terminology is easy to confuse with, but different from, the “general principles of law recognised by civilized nations”, i.e. the third main source of international law. In legal theory, some describe the concept of “principles” as a category of norms which is distinct from “rules”. According to this abstract distinction, a “rule” is either complied with or not, whereas a “principle” can be complied with to different degrees.⁸ Others use three categories: concepts, principles and rules, in order to denote different degrees of abstraction.⁹ However, neither terminology nor international practice in this regard are uniform or agreed.¹⁰ International documents and statements do not usually make it clear whether they attach a distinct legal meaning to the term “principle”. Treaty provisions that are labelled as “principles” show that the term is relevant in practice but provide no indication as to whether their legal nature is supposed to be different from other provisions.¹¹ The ICJ has used the term “*principle* of prevention” to describe “a customary *rule*”, and states have referred to the prohibition of the use of force, which clearly qualifies as a binary “rule”, as a “principle”.¹² This shows that international legal practice does not necessarily follow the terminology or categorical distinction proposed in legal theory.

For the purpose of this study, we use the terms “principle” and “concept” for ease of reference and without prejudice to legal status, content, or consequence. We distinguish these aspects regardless of their denomination: (1) The concept’s legal status: Is it customary law according to the established criteria set out above? This question applies regardless of whether a concept is labelled a “principle”. The status of several concepts that are discussed in international environmental law is unclear or disputed. Some may already have the legal status of binding customary law, others might be emerging customary rules or mere proposals. (2) What is the actual or proposed legal content and consequence of the concept? Is it clear what states are supposed to do, or how to apply the concept in terms or precisions and prescriptiveness?¹³ Some concepts may be fairly general and leave ample discretion to states as to the required conduct.

⁸ Czarnecki (2008) at 116 fn. 490. On the theoretical underpinning of the legal concept of “principles” see Rickels et al (2011) at 102.

⁹ Dupuy and Viñuales (2015) at 52.

¹⁰ For instance, the titles of two established textbooks on international law are “*Principles of international law*” and “*Principles of international environmental law*” although they of course they also address rules in the traditional sense; cf. Crawford (2012), Sands and Peel (2012).

¹¹ E.g. Art. 3 UNFCCC; Art. 3 Protocol on Environmental Protection to the Antarctic Treaty.

¹² *Pulp Mills on the River Uruguay* (Argentina v. Uruguay), Merits, Judgement, I.C.J. Reports 2010, 83, para. 101; *Certain Activities carried out by Nicaragua in the Border Area* (Costa Rica v. Nicaragua), ICJ judgment of 12.12.2015, para 4, available at <http://www.icj-cij.org/en/decisions>. Emphasis added.

¹³ Cf. Bodle and Oberthür (2017) at 91.

Based on a pre-selection similar to the treaties, a number of potentially relevant concepts were included in this section even if there is no consensus about they are customary law or whether their precise content and proposed or intended legal effect is clear. Customary rules and general concepts remain relevant to understanding the underpinnings and the limitations of the international law on natural resources.¹⁴ But it is important to not read a desired legal status or meaning into a concept when there is insufficient state practice to support it.

2.1.1.2 Permanent sovereignty over natural resources

Development and Content

The principle of permanent sovereignty over natural resources developed after 1945, mainly as response of newly independent developing states to the problem of foreign ownership of their mineral resources.¹⁵ It is expressed and elaborated in several resolutions of the UN General Assembly¹⁶, notably resolution 1803¹⁷, the Declaration on the Establishment of a New International Economic Order¹⁸ and the Charter of Economic Rights and Duties of States¹⁹. According to the last resolution, “Every state has and shall freely exercise full permanent sovereignty including possession, use and disposal, over all its natural resources” (Art. 2). It determines that sovereignty over territory includes the exclusive right to decide whether and how to access and exploit its natural resources. Other states, e.g. such with no resources of their own, have no right to access them. The principle of permanent sovereignty over natural resources is to be distinguished from other principles restricting this sovereignty such as the principle of common heritage of mankind and the principle of common concern of humankind.²⁰

The principle of permanent sovereignty over natural resources has influenced international negotiations²¹ and has been referred to in international environmental agreements and other instruments, for example in the Preamble of the Basel Convention²² or in the Biodiversity Convention²³, and in Principle 21 of the Stockholm Declaration²⁴ and Principle 2 of the Rio Declaration.²⁵ However, treaty and customary rules show that state sovereignty over its resources is not absolute and must be exercised in accordance of other obligations, i.e. within the limits of e.g. environmental or investment law.²⁶ In particular, the principle is restricted by the obligation not to cause *transboundary* environmental harm to other states.²⁷ However, the principle is not limited by a general duty to protect the environment of the state concerned.²⁸ Environmental protection duties concerning the state’s own territory could however derive from the principle of common concern and treaty law.²⁹

¹⁴ Dupuy and Viñuales (2015) at 86; Birnie et al (2009) at 190.

¹⁵ Birnie et al (2009) at 191; Dupuy and Viñuales (2015) at 6-7.

¹⁶ See the list in Ruzza (2011) at 86.

¹⁷ “Permanent Sovereignty over Natural Resources”, 14 December 1962, UN Doc. A/RES/1803/XVII.

¹⁸ “Declaration on the Establishment of a New International Economic Order”, 1 May 1974, UN Doc. A/RES/3201/S-VI.

¹⁹ “Charter of Economic Rights and Duties of States”, 12 December 1974, UN Doc. A/RES/3281/XXIX.

²⁰ Schrijver (1997) at 228; Tuerk (2010) at 157-175; Hey (2016) at 63.

²¹ Morgera (2006) at 96.

²² Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 22 March 1989, in force 5 May 1992, 28 *International Legal Materials* (1989), 649.

²³ Art. 15 (1) of the Convention on Biological Diversity (CBD), 5 June 1992, in force 29 December 1993, United Nations, Treaty Series, vol. 1760, 79.

²⁴ “Declaration of the United Nations Conference on the Human Environment”, Stockholm, 16 June 1972, UN Doc. A/CONF 48/14/Rev.1, p. 2 ff.

²⁵ “Rio Declaration on Environment and Development”, Rio de Janeiro, 13 June 1992, UN Doc. A/CONF. 151/26.Rev.1.

²⁶ See the analysis of particular instruments, *infra*; Birnie et al (2009) at 192; see also Sands (2003) at 237.

²⁷ See especially Principle 21 of the Stockholm Declaration and Durner (2001) at 61-68.

²⁸ See Durner (2001) at 57-58 with further references.

²⁹ See Durner (2001) at 70, 73.

Still, the principle of permanent sovereignty over natural resources remains “the cornerstone of the rights and duties of states over natural resources within their own territory”.³⁰ It does not address resources outside areas of national jurisdiction.

Status

The principle of permanent sovereignty over natural resources has been recognised by the International Court of Justice in the *Armed Activities in Congo case* as a principle of customary international law.³¹

Applicability to abiotic resources and environmental and social impacts of their extraction, processing and transport

The principle is applicable to all natural resources, i.e. living and non-renewable resources such as minerals.³² Thus, it also covers abiotic resources. As stated above, environmental and social aspects of their extraction, processing and transport are not primarily addressed. They become relevant when they are addressed by other obligations which restrict the principle, i.e. the obligation not to cause transboundary environmental harm to other states, the principle of common concern and treaty obligations.

Assessment

The principle of permanent sovereignty over natural resources is mainly about “who” has the right to access natural resources and less about “how” the resources are extracted. Its function is to preclude claims by other states, including those without the resource in question, for access to that resource. This is underlined by global human rights instruments which enshrine the right of peoples to freely dispose of their natural resources for their own ends.³³

With regard to environmental and social impacts of the extraction, processing and transport of resources, the principle *prima facie* appears as a barrier, as it does not seem to require environmentally sound extraction etc.

Yet the principle is not absolute. Its exercise was qualified as early as in its first formulation. In addition, the right has to be exercised in accordance with other international obligations. For instance, Art. 192 of the UNCLOS requires the protection of the marine environment in all the spatial zones of the sea, including the zones subject to the jurisdiction of the coastal states.³⁴

Summary

The principle of permanent sovereignty over natural resources is the starting point for the rights and duties of states over natural resources within their own territory. It covers abiotic resources, but does not primarily address environmental and partly social impacts of the extraction, processing and transport of resources.

³⁰ Birnie et al (2009) at 192. See also Sanden et al (2012) at 35.

³¹ ICJ, *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)*, Judgement, ICJ Rep. 2005, at 168, para. 244. However, the court held that the principle did not apply to the specific situation in which an occupying power loots, plunders and exploits natural resources in the occupied territory, *ibid.* According to Armstrong (2015) at 131, “the normative justification for that doctrine is far from clear”. See also Dupuy and Viñuales (2015) at 7 with further references to international arbitral awards.

³² Birnie et al (2009) at 191.

³³ Art. 1(2) of the International Covenant on Civil and Political Rights (ICCPR), 12 December 1966, in force since 23 March 1976, UNTS, Vol. 999, at 171, and the International Covenant on Economic, Social and Cultural Rights (ICESCR), 16 December 1966, in force since 3 January 1976, UNTS, vol. 993, at 3.

³⁴ See Durner (2001) at 71-72.

However, a state's sovereignty over its resources is not absolute and subject to other obligations, which include established environmental norms and particularly obligations to extract, process or transport resources in an environmentally and socially sound manner to the extent that such obligation exist or emerge.

2.1.1.3 Prevention of transboundary environmental harm

Development and Content

As stated by the ICJ in 2015, a State has the obligation "to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State".³⁵

The obligation has originally evolved from the *Trail Smelter* case (1938)³⁶, concerning air pollution, and the *Corfu Channel* Case (1949)³⁷ and has since developed into customary law. The ICJ has confirmed the existence of this general rule in the advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*³⁸, the *Gabcikovo-Nagymaros* case³⁹ and the *Pulp Mills* case⁴⁰ and the *Costa Rica–Nicaragua* cases.⁴¹ The obligation is also expressed in international documents such as the Stockholm Declaration and the Rio Declaration, and reflected in international treaties, such as UNCLOS or CBD.⁴² It has been called "the primary or cardinal rule of customary international environmental law", giving rise to many other rules of international environmental law.⁴³

While the general rule is now well established, there are small but important differences in how it was formulated over time. The differences have legal implications for which areas are protected and for which activities or omissions a state may be responsible. In that sense the precise scope and content of the obligation is not entirely clear:

The wording of principle 2 of the 1992 Rio Declaration principle 2 juxtaposed the obligation to prevent transboundary harm with the right to exploit national natural resources: "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, *and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction*".⁴⁴ The obligation thus limits or counterbalances the sovereignty and the freedom to exploit natural resources. The wording

³⁵ *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*, Judgment of 16 December 2015, I.C.J. Reports 2015, 665, para 104.

³⁶ *Trail Smelter Arbitration* (US v. Canada), 3 Rep. International Arbitration Awards 1905 (1941) at 1963.

³⁷ *Corfu Channel* (United Kingdom v. Albania), Merits, Judgement, I.C.J. Reports 1949, 22.

³⁸ *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, I.C.J. Reports 1996, 226, para. 29.

³⁹ *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), I.C.J. Reports 1997, 112, para. 141.

⁴⁰ *Pulp Mills on the River Uruguay* (Argentina v. Uruguay), Merits, Judgement, I.C.J. Reports 2010, 83, para. 10. The Court concluded in that case that "it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource" (see para. 204). The Pulp Mill case was also referred to by ITLOS in *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion (1 February 2011), ITLOS No. 17, para. 110, 117-120.

⁴¹ *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica)*, Judgment of 16 December 2015, I.C.J. Reports 2015, 665, para 104.

⁴² Stockholm Declaration Principle 21, Rio Declaration Principle 2, UNCLOS Article 194, CBD Article 3, amongst others.

⁴³ McIntyre (2006) at 170.

⁴⁴ United Nations Conference on Environment and Development, Rio Declaration on Environment and Development, June 14, 1992, 31 I.L.M. 874; (emphasis added).

“responsibility to *ensure*” indicates an obligation of result and is much stronger than the ICJ’s subsequent wording in 2015. Another difference to the ICJ wording is that the Rio Declaration not only includes damage to other states, but also to areas beyond national jurisdiction.

The International Law Commission (ILC) also addressed this obligation, but its Draft Articles on Transboundary Harm from Hazardous Activities of 2001⁴⁵ give it a slightly wider scope: They apply when (1) the activity in question was not prohibited by international law; (2) it was carried out under the jurisdiction of the state of origin; (3) it involves a risk of causing significant transboundary harm; and (4) the harm has been caused by the physical consequences of the activity.⁴⁶ According to the Draft Articles, the obligation is “to take all appropriate measures to prevent significant transboundary harm *or at any event to minimize the risk thereof*”.⁴⁷ The ILC thus combines measures to prevent significant transboundary harm with measures to at least minimize the risk thereof. Similar to recent ICJ judgments, the ILC defines “transboundary harm” as harm “caused in the territory of or in other places under the jurisdiction or control of a State”,⁴⁸ thus excluding harm to areas beyond national control. The ILC also requires “significant” harm.⁴⁹

As to the precise content of the obligation, ICJ and ITLOS have clarified that the duty to prevent is an obligation of due diligence and therefore an obligation of conduct rather than of result.⁵⁰ While there are uncertainties regarding what due diligence would require in each particular case, the concept of due diligence is well established and leaves flexibility for each specific case. The ILC Draft Articles and case law provide some examples: Due diligence could require states to employ the best available techniques, regulate the activity in question, conduct an environmental impact assessment⁵¹, or to cooperate, if there is a risk of transboundary harm.⁵² The obligation not to cause transboundary harm is not intended for balancing the interests of concerned states (as in, for example, the equitable sharing resources). The threshold of significant harm underlines an absolute obligation.⁵³

Status

The obligation not to cause transboundary environmental harm has been recognised by the ICJ as customary international law.⁵⁴

Assessment

The duty to prevent transboundary environmental harm generally limits the freedom of states to exploit their resources.⁵⁵ It is not certain whether and to what extent the obligation would also apply in a

⁴⁵ International Law Commission (2001), Draft Articles on Prevention of Transboundary Harm from Hazardous Activities with Commentaries, *Yearbook of the International Law Commission* Vol. II, Part Two, 148. Birnie et al. (2009) at 140 regard them as an authoritative codification of existing customary obligations, but this would have to be seen in light of the subsequent ICJ judgments.

⁴⁶ *ILC Draft Articles Prevention*, Article 1, commentaries.

⁴⁷ *ILC Draft Articles Prevention*, Article 3 (emphasis added).

⁴⁸ *ILC Draft Articles Prevention*, Article 2 (c).

⁴⁹ „A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State.” (Pulp Mills, I.C.J. Reports 2010 (I), pp. 55-56, para. 101.). Note however that the Rio Declaration and some earlier ICJ judgements do not mention the term „significant”.

⁵⁰ *Pulp Mills*, para. 101; *Activities in the Area*, para. 110, 117-120.

⁵¹ *ILC Draft Articles Prevention*, Art. 3 comm. 5.

⁵² *Pulp Mills*, para. 121, 177 and 204. See also McIntyre (2006) at 171; Birnie et al. (2009) at 148 ff.

⁵³ Beyerlin and Marauhn (2011) at 42.

⁵⁴ *Pulp Mills*, para. 101. It should be noted that the ICJ is obviously not concerned about theoretical distinctions between “principles” and “rules”, as it states: “The Court points out that the *principle* of prevention, as a customary *rule*,...” (emphasis added).

⁵⁵ Hey (2016) at 59.

similar way to resources beyond national jurisdiction or resources with a legal status as a “common” good (see above). It does not as such prevent a state from damaging its own environment.

A breach of this obligation would require causation, i.e. that the extraction activity by the particular state caused significant environmental transboundary harm. In addition, a breach would also require that the state did not exercise due diligence. Which diligence is “due” in a specific case would be difficult to ascertain in advance. Other obligations under international law may apply specifically to the activity in question. They might define or indicate which diligence is required of states, or they might even apply as *lex specialis* and prevail over the obligation to prevent transboundary harm. For instance, it might be part of due diligence to comply with the customary obligation to carry out an environmental impact assessment (see Section 2.1.1.7). In that case, failure to do so would be a breach of the obligation to carry out an EIA as well as one element in determining whether a state was in breach of preventing transboundary environmental damage. What would be considered a reasonable standard of due diligence may change with time.⁵⁶ This openness could therefore provide political opportunities for establishing standards with regard to mineral extraction.

Summary

The obligation to prevent significant transboundary environmental harm is the core principle of international environmental law, and serves as a counterpart to the principle of permanent sovereignty over natural resources. It covers abiotic resources, but does not protect the environment of the state where the mining activity takes place. It is not certain whether and to what extent the obligation would also apply to resources beyond national jurisdiction or resources with a legal status as a “common” good. The principle is important because it is the starting point for a number of other obligations under international environmental law. The openness of the due diligence standard could provide political opportunities in particular for giving legal effect to non-binding standards.

2.1.1.4 Common heritage of mankind

Development and Content

The concept of common heritage of mankind was introduced in the context of early discussions on the exploitation of the resources of the deep sea-bed beyond national jurisdiction.⁵⁷ Art. 136 and 137 UNCLOS state that the seabed and ocean floor and the subsoil thereof beyond the limits of national jurisdiction, as well as its resources, to be “common heritage of mankind”, vested in mankind as a whole, on whose behalf an International Sea-bed Authority shall act. The concept of common heritage of mankind builds on the status of common areas⁵⁸, notably the duty of environmental protection of the area subject to the common heritage regime⁵⁹ and the prohibition of use for military purposes (exclusive use for peaceful purposes), but also the right of exploration.⁶⁰ It also develops the concept of common areas further⁶¹ by placing the exploitation of the resources under common management and even an international authority.⁶² In addition, the joint management is intended for the benefit of all states and

⁵⁶ *ILC Draft Articles Prevention*, Art. 3 comm. 11.

⁵⁷ In 1967, Malta proposed the concept to the UN General Assembly as a basis for exploiting the resources of the deep sea-bed, see Birnie et al (2009) at 197; see also Macdonald (1995), Noyes (2012), all with references.

⁵⁸ See the analysis of this principle in the report for the German Federal Environment Agency (UBA) research project FKZ 3716 33 100 0.

⁵⁹ See Art. 145 compared to Art. 192 UNCLOS.

⁶⁰ See Durner (2001) at 225-229, especially 228-229.

⁶¹ Durner (2001) at 139-140, 228-229.

⁶² Birnie et al (2009) at 198 with reference to the competence of the International Seabed Authority according to Art. 145 UNCLOS.

peoples⁶³, including those who do not have the technical and financial means to exploit the resources.⁶⁴ This benefit implies an equitable sharing of the rewards resulting from exploitation activities⁶⁵, but does not forbid mining activities by states.⁶⁶ The joint benefit aspects are also incorporated in the 1979 Moon Treaty⁶⁷, whose practical effect and legal weight is very limited because the states most active in the exploitation of outer space have not ratified it and the international regime it envisages has not been established.⁶⁸ Other conventions like the World Heritage Convention use terms as “world heritage of mankind” in their preamble but do not include joint management provisions.⁶⁹ According to *Birnie et al.*, they “are better viewed, like the term ‘common concern’, as expression of the common interest of all states in certain forms of ecological protection, and not as attempts to internationalise ownership of resources”.⁷⁰ States have been increasingly reluctant to use the principle of common heritage of mankind and have preferred to refer to the principle of common concern of humankind instead, for instance regarding climate change in the 2015 Paris Agreement on Climate Change.⁷¹

As mentioned above, access to the area subject to the common heritage regime is restricted by the duty of environmental protection, as codified by Art. 145 UNCLOS and Art. 7 paragraph 1 of the Moon Treaty,⁷² the prohibition of use for military purposes, and the right of exploration.⁷³ The duty of environmental protection, an extension of the no-harm principle to areas beyond national jurisdiction, has also been expressed by Art. 21 of the Stockholm Declaration⁷⁴ and, above all, recognised by the International Court of Justice as reflecting customary international law.⁷⁵ Concerning its implementation, there is a tendency in theory and practice to allow every state to enforce it.⁷⁶

Finally, it has been suggested that common heritage of mankind also includes an obligation to preserve the area concerned for future generations.⁷⁷ In this case, it would overlap with the principle of inter-generational equity.⁷⁸ However, as of yet no attempt has been made in practice to implement this element.⁷⁹

⁶³ See Art. 140 UNCLOS: “Activities in the Area shall [...] be carried out for the benefit of mankind as a whole [...], and taking into particular consideration the interests and needs of developing States and peoples who have not attained full independence or other self-governing status recognized by the United Nations [...]”.

⁶⁴ Dupuy and Viñuales (2015) at 84; *Birnie et al* (2009) at 197-198.

⁶⁵ Durner (2001) at 219.

⁶⁶ See Art. 137 para. 3 UNCLOS and Durner (2001) at 222-224.

⁶⁷ Cf. Article 11 of the Moon Treaty Agreement Governing the Activities of States on the Moon and other Celestial Bodies, 5 December 1979 (Moon Treaty), in force 11 July 1984, 1363 UNTS 3.

⁶⁸ Dupuy and Viñuales (2015) at 84.

⁶⁹ Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972 (World Heritage Convention) entered into force 17 December 1975 United Nations, Treaty Series, vol. 1037, at 151. See also Durner (2001) at 203-213.

⁷⁰ *Birnie et al* (2009) at 198. See also Durner (2001) at 203-205 and 230.

⁷¹ Dupuy and Viñuales (2015) at 85.

⁷² See Art. 145 compared to Art. 192 UNCLOS.

⁷³ See Durner (2001) at 225-229, especially 228-229.

⁷⁴ “Declaration of the United Nations Conference on the Human Environment”, Stockholm, 16 June 1972, UN Doc. A/CONF 48/14/Rev.1, at 2 et seq. See Kiss and Shelton (2007) at 125.

⁷⁵ ICJ, Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, ICJ Reports 1996, at 241-242 para. 29: “The existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.” See also ICJ, *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), ICJ Reports (1997), 162 et seq., para. 53.

⁷⁶ Durner (2001) at 171 et seq., referred to at 227-228.

⁷⁷ See MacDonald (1995) at 155; Sanden et al (2012) at 38.

⁷⁸ See the analysis of this principle in the report for the German Federal Environment Agency (UBA) research project FKZ 3716 33 100 0.

⁷⁹ MacDonald (1995) at 155.

Status

As the conceptual basis for UNCLOS, including the 1994 Implementing Agreement⁸⁰ and the Moon Treaty, the common heritage of mankind is an established legal concept of international law.⁸¹ Concerning the deep sea-bed, it may additionally reflect customary law. However, this is controversial. According to one view, it is “still of doubtful legal status”.⁸² According to another view, the controversies related to Part XI of UNCLOS which prevented UNCLOS’ entry into force for over a decade, including the organisation of the International Seabed Authority, do not question the *opinio iuris* of states on the basic elements of the common heritage concept.⁸³ There is no evidence regarding state practice or *opinio iuris* that the legal status of common heritage of mankind applies to other areas.

Applicability to abiotic resources and environmental and social impacts of their extraction, processing and transport

While the principle of common heritage of mankind applies to the deep sea-bed and to a limited extent to the moon, it relates only to non-living, i.e. abiotic resources.⁸⁴ It has thus been described as “a specialized regime applied to certain mineral resources”.⁸⁵ As stated above, environmental and social impacts of their extraction, processing and transport are not primarily addressed. They become relevant mainly as restrictions to the exploitation aspect of the principle, notably the duty of environmental protection.

Assessment

The principle of common heritage of mankind is a legal status principle applying to a certain area and does not primarily address environmental and social aspects of the extraction, processing and transport of abiotic resources. As a starting point, its main element is the common management of the area concerned,⁸⁶ and it is directed at exploiting the area’s resources⁸⁷ and sharing the benefits, which impedes environmentally sound extraction etc. However, similar to the principle of common areas and the equitable utilisation of shared resources, free exploitation is restricted at least by the general duty of environmental protection for the relevant areas.⁸⁸ In academic literature it has been observed that the central weakness of the common heritage concept is that “it is motivated in large parts by state’s desire for access to resources rather than by genuine community interest in their protection”.⁸⁹ In the case of the deep seabed, common heritage resources are subject to regulation by an international authority, which is obliged to adopt adequate provisions to protect the marine environment.⁹⁰

Summary

The principle of common heritage of mankind places the exploitation of certain resources under common management, intended for the benefit of all states and peoples. It applies to the deep sea-bed and the moon and relates only to abiotic resources. The principle of common heritage of mankind does not

⁸⁰ Agreement on the Implementation of Part XI of the 1982 Law of the Sea Convention, New York, 28 July 1994, UN Doc. I-31364.

⁸¹ Durner (2001) at 230-231.

⁸² Birnie et al (2009) at 198.

⁸³ See Durner (2001) at 231-233 with further references.

⁸⁴ See Art. 133 UNCLOS defining resources in the Area as mineral resources.

⁸⁵ Birnie et al (2009) at 195.

⁸⁶ Matz-Lück (2010) calls the concept of common heritage of mankind a „management tool“.

⁸⁷ For the critics of a potential eco-imperialism see Scholtz (2008).

⁸⁸ See Beyerlin and Maraun (2011) at 141.

⁸⁹ Brunnée (2006) at 563.

⁹⁰ See Art. 145 UNCLOS.

primarily address environmental and social aspects of their extraction, processing and transport. As a starting point, it aims at exploiting resources and sharing the benefits, and in that sense impedes environmentally sound extraction etc. However, free exploitation is restricted - at least by the duty of environmental protection - for the relevant areas. In addition, in the case of the deep seabed, common heritage resources are subject to regulation by an international authority, which is obliged to adopt adequate provisions to protect the marine environment. Concerning the deep sea-bed, the principle may reflect customary law.

2.1.1.5 Precautionary principle

Development and Content

While there is no uniform formulation or usage for the precautionary principle, the general idea is that lack of scientific certainty about actual or potential environmental impacts should not prevent states from taking appropriate measures.⁹¹ Principle 15 of the Rio Declaration states: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

The precautionary principle is enshrined in different wordings in several treaties and non-binding instruments. In the London Protocol, Article 3.1 requires the application of the precautionary approach. In the Biodiversity Convention, the precautionary approach has been introduced recognizing that "where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat". In Article 3(3) of the United Nations Framework Convention on Climate Change (UNFCCC), the precautionary approach is generally considered as intending to prevent States from postponing mitigation measures by referring to scientific uncertainty about climate change. The UNFCCC is of general relevance because it incorporates the precautionary principle in the operative part of a treaty text with near universal participation, including the US.

The precautionary principle has been called "notoriously difficult to define", with no generally accepted definition.⁹² Even an internationally agreed and long-established wording such as in the Rio Declaration raises questions of interpretation and application. For instance, would it be a self-standing obligation or merely influence the interpretation of other obligations? Would it imply an obligation to take action or merely serve as a (legal) justification for such measures in the absence of scientific certainty?⁹³ Would it justify "precautionary" measures that trade off one environmental risk against another?⁹⁴ To some extent these questions are inherent in a concept of "principles" in which it is their nature to be neither precise in content nor to provide clear legal consequences.

There is also a more fundamental critique of limiting the precautionary principle to cases of scientific uncertainty. Some scholars in particular in the German legal context argue that the precautionary approach also addresses also related to resources. According to this view, the precautionary approach conceptually includes an unspecified but absolute limit to resource use - a requirement to maintain a „free space“ - for the sake of future generations.⁹⁵ This notion could also be regarded as one element of

⁹¹ Dupuy and Viñuales (2015) at 61.

⁹² Scotford (2017) at 81.

⁹³ Cf. the overview of views in Dupuy and Viñuales (2015) at 61-62.

⁹⁴ For the UNFCCC, the specific wording of the precautionary principle could be read as supporting an argument in favour of activities that pose risks to the environment, provided that these activities are intended to mitigate the causes and effects of climate. See analysis in Bodle et al (2012) at 119-120; Bodle (2013) at 458-459.

⁹⁵ Lütke-Wolff NVwZ 1998, 777 (779 f.); Appel NVwZ 2001, 395 (397); Erbguth/Schlacke, Umweltrecht (2016) at 51; also Nettesheim in Grabitz/Hilf/Nettesheim, EUV/AEUV, Art. 191 para 94; Epiney in Landmann/Rohmer, EUV/AEUV Art. 191 para 10.

sustainable development, to which this view adds the economic aspect of the distribution of resources.⁹⁶ However, this view does not seem to have gained traction beyond legal practice in Germany⁹⁷, which also explicitly enshrines the precautionary principle. Given the growing recognition of the need for addressing the scarcity of resources, it could be worth revisiting such a resource-related understanding of the precautionary approach.

The precautionary principle has also been invoked in relation to the burden of proof. For instance, it has been argued that when a *proposed* mining activity has the potential for irreversible and catastrophic harm, the burden of proof should be on those proposing the activity to show that it is safe, instead of requiring those opposing the activity to show that it is not safe.⁹⁸ However, the implications of this burden of proof in practical terms are not further elaborated. The precautionary principle could also be invoked to ease or even shift the burden of proof *after* environmental impacts have occurred. For instance, a state would have to rebut a legal assumption that the mining activity caused the alleged environmental harm, instead of claimants having to prove that the mining activity did cause it.⁹⁹ Sectoral applications of the precautionary principle under specific regimes may adopt such or similar legal implications.¹⁰⁰ However, there is not sufficient state practice and precedents to suggest that international law generally requires a state to prove that activities within its jurisdiction or control are environmentally safe.¹⁰¹ In the *Pulp mills on the river Uruguay* case, the ICJ did not use the term “principle”, but accepted that a precautionary approach “may be relevant” in the interpretation and application of the treaty in question. However, the court also stated that “it does not follow that it operates as a reversal of the burden of proof”.¹⁰² The wording of the court is not clear as to whether this applies to the specific case or generally excludes a reversal.¹⁰³

Rickels et al argue that the precautionary principle can serve to balance conflicting objectives: In this view, because the precautionary principle(s) can be satisfied to different degrees within different instruments, they therefore allow for determining which degree of environmental damage can be accepted in order to advance, for instance, the comprehensive goal of climate protection.¹⁰⁴ This view appears to boil down to an overall cost-benefit analysis, but there is no compelling reason or evidence for assuming that the precautionary principle should be to endorse a cost-benefit or “net” approach to environmental risks.

While the precautionary principle still means many things in different contexts,¹⁰⁵ it can provide guidance on dealing with scientific uncertainty - so far mainly by procedural safeguards. On the other hand, it has been argued that if the precautionary principle is applied in isolation, there is a risk of perpetuating the scientific uncertainty that gives rise to its application in the first place.¹⁰⁶

It should be noted that the precautionary principle is also part of EU law and of many national legal orders, but these instances do not necessarily have the same legal content and implications as the precautionary approach in international law.¹⁰⁷

⁹⁶ Nettesheim in Grabitz/Hilf/Nettesheim, EUV/AEUV, Art. 191 para 94.

⁹⁷ Nettesheim in Grabitz/Hilf/Nettesheim, EUV/AEUV, Art. 191 para 94; Epiney in Landmann/Rohmer, EUV/AEUV Art. 191 para 10.

⁹⁸ Bodansky (2011) 15.

⁹⁹ Bodle et al (2012) at 115-116.

¹⁰⁰ See for instance ITLOS case No.17, “Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber)”, para 125-135, <http://www.itlos.org>; Jessen (2012) 77.

¹⁰¹ Birnie et al (2009) 158.

¹⁰² ICJ, *Pulp mills on the river Uruguay*, para 164.

¹⁰³ Bodle (2012) at 115-116.

¹⁰⁴ Rickels et al (2011) 101-103.

¹⁰⁵ Birnie et al (2009) 155.

¹⁰⁶ Rickels et al (2011) 102.

¹⁰⁷ Scotford (2017) at 84.

Status

As with other principles, the question of legal status is distinct from the question of specific content. The legal status of the precautionary principle in customary international law is not yet clearly established, although it has been invoked several times in international cases.¹⁰⁸ This is highlighted by the fact that some avoid or reject the term precautionary “*principle*” and use the term “*approach*”.¹⁰⁹

Assessment

Conceptual legal uncertainties regarding the precautionary principle, as well as its openness regarding its content, make it difficult to draw conclusions without imputing desired outcomes.¹¹⁰ The most commonly invoked implication is that scientific uncertainty should not by itself be a reason to avoid restricting potentially harmful activities. But the precautionary principle is no substitute for balancing or prioritising different objectives. All the common ground it can currently provide is to establish interpretative guidance and procedural safeguards for dealing with scientific uncertainty. There are views particularly in the German legal debate arguing that the precautionary approach also contains a resource-related element and limits to resource use. While these views have not gained traction at the international level, it could be worth revisiting that argument in view of the increasing recognition of limited resources and resource efficiency as a common and overarching objective. At least in the current state of international law, the precautionary principle does not provide a sufficient legal tool for making essential political decisions about conflicting objectives and managing risks.¹¹¹

Against this background, the practical implications of the precautionary principle for mining activities seem small. However, it could be relevant in cases where extraction activities pose new risks, e.g. in deep seabed mining.

Summary

There is no uniform formulation or usage for the precautionary principle and its legal status in customary international law has not yet been clearly established. All the common ground it can currently provide is to establish interpretative guidance and procedural safeguards for dealing with scientific uncertainty, which may be of relevance where the potential impact of mining activities is not fully clear.

2.1.1.6 Polluter pays principle

Development and content

The polluter pays principle embodies the concept that the “costs of the pollution should be borne by the person responsible for causing the pollution”.¹¹² It brings together the notion of the “tragedy of the commons” and a view in economic theory that environmental harm is caused because the costs associated with using and polluting the environment were “external” to the polluter and should be internalised. It is, however, open for debate in which cases the principle should be applied, which costs should

¹⁰⁸ Bodle et al (2014) at 52; see generally Erben (2005); Birnie et al (2009) at 157; Bodle et al (2012) at 119 with further references; Recent cases include ICJ, *Pulp Mills on the river Uruguay (Argentina v. Uruguay)*, judgment of 20 April 2010, www.icj-cij.org; ITLOS case No.17, “Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area (Request for Advisory Opinion submitted to the Seabed Disputes Chamber)”, para 125-135, <http://www.itlos.org>.

¹⁰⁹ Including the ICJ, see the overview in Birnie et al (2009) 154-155.

¹¹⁰ Bodle et al (2014) at 52.

¹¹¹ Bodle et al (2014) at 54.

¹¹² Sands (2003) at 279.

be covered or who would be the person responsible.¹¹³ The principle is closely related to the obligation not to cause transboundary harm and to liability, and provides the basis for later discussion on economic policy instruments.¹¹⁴

The polluter pays principle was first explicitly mentioned in an international document in the OECD Council Recommendation on Guiding Principles concerning the International Economic Aspects of Environmental Policies (1972).¹¹⁵ The OECD recommended that the costs of goods and services should cover the costs of environmental protection measures, but not necessarily the costs of environmental damage.¹¹⁶ The OECD Council Recommendation concerning the Application of the Polluter-Pays Principle to Accidental Pollution (1989) extends the principle to imply that operators of hazardous installations have to take measures to prevent and control accidents, including by cleaning, decontamination or rehabilitation.¹¹⁷ However, the Recommendation also provides for exceptions – for example, if rapid implementation is needed or strict implementation would have severe socio-economic consequences.

The strongest support for the principle can be observed in Europe, where the (then) European Community adopted the principle in its 1st environmental action programme of 1973. In 1975, the Council of the European Communities recommended to the European Commission and Member States to apply the principle and to give it a broader scope than the OECD: the polluter should pay for the costs of eliminating pollution.¹¹⁸ The EEC treaty of 1986 explicitly provided that environmental action should be based on the polluter-pays principle.¹¹⁹

At global level, the principle was adopted as Principle 16 of the Rio Declaration which states that environmental costs should be internalised, “taking into account that the polluter should, in principle, bear the costs of pollution”. The soft wording of Principle 16, including many caveats, reflects the uneasiness some states felt with regard to the concept generally, and particularly with regard to applying it beyond the domestic level, i.e. between states.¹²⁰

Several international treaties such as the Helsinki Convention on Transboundary Watercourses, the 1991 Alps Convention, the 1992 Baltic Sea Convention, 1994 Energy Charter Treaty, or the 1985 ASEAN Convention, make reference to the polluter-pays principle but mostly without further defining its specific implications or application.¹²¹

Open questions include (1) which costs would be covered, i.e. whether decontamination, clean-up and reinstatement would be included; and (2) which exceptions would be applied.¹²² With respect to the latter, it has been argued that “a great deal of flexibility will be inevitable” in applying and implementing the principle. While strict liability would be the closest translation of the principle, in practice its application would need to reflect the differences in risks and the economic feasibility, especially with regard to high risk technologies.¹²³

¹¹³ Sands (2003) at 280.

¹¹⁴ Sands (2003) at 159.

¹¹⁵ OECD, Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies, C(72)128, 26 May 1972, available on the internet at <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=4&InstrumentPID=255&Lang=en&Book=False> (last accessed 28 February 2019).

¹¹⁶ Sands (2003) at 281.

¹¹⁷ OECD, Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution, C(89)88/FINAL, 7 July 1989, available on the internet at <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=38&InstrumentPID=305&Lang=en> (last accessed 28 February 2019).

¹¹⁸ Council Recommendation 75/436/EURATOM, ECSC, EEC of 3 March 1975, Annex para 2.

¹¹⁹ For the recent development see Sadeleer (2015).

¹²⁰ Sands (2003) at 281.

¹²¹ See the list in Beyerlin/Marauhn (2011) at 57 and 58.

¹²² Sands (2003) at 285.

¹²³ Birnie et al. (2009) at 326.

Status

As with other principles, the question of legal status is distinct from the question of specific content. It is doubtful whether the principle has required the status of a principle of customary international law, especially with respect to its application at the inter-state level.¹²⁴ But it might have become *regional* customary law in the EU, UNECE and OECD countries.¹²⁵ It has also been increasingly accepted at national level in developing countries via statute or through court decisions.¹²⁶ However, it is difficult to determine and assess implementation because there is too much uncertainty in regard to its content.¹²⁷

In this case, there is a range of views on its legal status and nature. Some argue that the polluter pays concept was a clear normative rule instead of a mere principle that guides interpretation.¹²⁸ Others hold that the principle, at least as reflected in Rio Principle 16, “simply lacks the normative character of a rule of law”, and that no general pattern of state practice is discernible.¹²⁹

Applicability to abiotic resources and environmental and social impacts of their extraction, processing and transport

The principle is generally applicable to all activities that cause environmental damage, and would thus also cover activities involving abiotic resources such as extraction, processing and transport. At least in theory, the principle applies to all costs associated with pollution from avoidance over prevention, control and remediation to compensation.¹³⁰ Beyond chronic pollution caused by ongoing activities it can also cover accidental pollution and would involve preventive as well as remedial measures.¹³¹ However, there are several definitions of the principle and there is no coherent state practice regarding its specific application. For instance, since exceptions or limitations apply to most areas of legal liability, this could also be an issue for applying the polluter pays principle.

Assessment

The polluter pays principle essentially aims at providing economic disincentives to causing environmental harm and has implications for environmental liability. The principle is mainly directed at how states should address the costs for environmental pollution and polluting private parties - i.e. by internalising external environmental costs. Current practice at country level in regard to proactive and reactive measures does not give clear guidance on the application of the polluter pays principle to the various environmental costs that may be associated with the extraction, processing and transport of minerals.

The polluter pays principle can be the basis for domestic measures to prevent environmental impacts associated with the extraction, processing and transport of minerals. Taxation, charges and liability systems are possible instruments for the internalization of environmental costs.¹³² Various developed and developing countries have adopted such measures. In the OECD, economic instruments are applied in almost all environmental fields and in all countries.¹³³ However, at this point it is impossible to

¹²⁴ Beyerlin/Maraun (2011) at 59 with regard to the wording in Principle 16 of the Rio Declaration (“should endeavour to promote”).

¹²⁵ Sands (2003) at 280.

¹²⁶ Robinson and Kurukulasuriya (2006) at 34.

¹²⁷ Rao (1998) at 24.

¹²⁸ Beyerlin (2007) at 441.

¹²⁹ Birnie et al. (2009) at 323.

¹³⁰ Robinson and Kurukulasuriya (2006) at 34.

¹³¹ Rao (1998) at 22.

¹³² Birnie (2009) at 323.

¹³³ Barde (1994) at 10 et seq.

point to any general pattern of state practice as implementation has been largely left to national rather than international action.¹³⁴

In theory, the polluter pays principle can also be applied to reactive measures such as the cleaning, decontamination or rehabilitation of the affected environment, and the financial compensation for damages. This can be relevant in case accidents happen throughout the operation of mines, or during the processing and transport of minerals. It can also be relevant in regard to clean-up and restoration activities after the closing of the mine. However, the exceptions in the OECD Council Recommendation of 1989 already point to the limitations of the polluter pays principle for reactive measures. Also, several developing countries have deliberately chosen to make governments compensate the victims of environmental harm.¹³⁵ The application of the principle to particular cases and situations remains open to interpretation, particularly in relation to the nature and extend of the costs.¹³⁶

Summary

The polluter pays principle expresses the economic approach of internalising external costs and is mainly directed at how states should address private parties. Having to bear (i.e. internalise) the costs of pollution is intended to be a disincentive to pollute. It is doubtful whether the principle has the status of customary international law. However, it is recognized on a regional level in the EU, UNECE and OECD countries and increasingly applied in developing countries. With regard to content, while the principle would generally cover abiotic resources, there is no consistent implementation of proactive and reactive measures that could guide the handling of the environmental costs that may be associated with the extraction, processing and transport of minerals.

2.1.1.7 Duty to undertake an environmental impact assessment

Development and Content

Environmental impact assessment (EIA) is “a procedure for evaluating the likely impact of a proposed activity on the environment”.¹³⁷ Its purpose is to inform the competent authority on possible environmental effects of a project as a basis for the decision whether to proceed with the project. The duty to conduct an environmental impact assessment (EIA) was first developed at national levels and subsequently introduced into treaty law and international documents.¹³⁸ It is included in several treaties such as Article 14 CBD¹³⁹, Article 206 UNCLOS¹⁴⁰, Article 4(1)(f) UNFCCC¹⁴¹ (to some extent) and former regional instruments such as the Espoo Convention¹⁴², which also has a Protocol on strategic environmental assessment (SEA). Notably, Article 14(1)(b) of the CBD provides a near-global obligation in

¹³⁴ Birnie (2009) at 323.

¹³⁵ Luppi et al. (2012) at 135 et seq.

¹³⁶ Sands (2003) at 280.

¹³⁷ Art. 1 (6) Espoo Convention.

¹³⁸ See Dupuy and Viñuales (2015) at 68-69.

¹³⁹ Convention on Biological Diversity, 5 June 1992, United Nations, Treaty Series, vol. 1760, p. 79.

¹⁴⁰ United Nations Convention on the Law of the Sea, 10 December 1982, in force since 16 November 1994, UN Doc. I-31363.

¹⁴¹ 1992 United Nations Framework Convention on Climate Change, New York, 9 May 1992, 1771 UNTS 107.

¹⁴² Until 2014, participation was limited to ENECE parties, see the analysis on the Espoo Convention at Section 2.1.2.9.

this regard, and the CBD COP has developed guidelines for its implementation.¹⁴³ The duty to undertake an EIA is also included in principle 17 of the Rio Declaration¹⁴⁴ and the World Bank's Environmental Assessment Directive.¹⁴⁵

Status

In two recent judgements, the ICJ has recognised that the accepted practice amongst states amounted to “a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource”.¹⁴⁶ In the *Costa Rica* case, the ICJ clarified that the underlying principle applies generally to such activities, and is not limited to industrial activities.¹⁴⁷ While the ICJ left it to the states to determine the specific content of the impact assessment required, it specified some details, most notably including that the obligation involves continuous monitoring of the activity's effect on the environment. As a legal rule in customary international law, this is an important development that might require clarification as to its precise implications.

Moreover, the ICJ judgements seem to limit the customary duty to conduct an EIA to a transboundary context. However, it is not yet settled in case law whether the duty also applies to a purely domestic context or to areas beyond national jurisdiction.¹⁴⁸ In its *Advisory Opinion on the Area*, the Seabed Disputes Chamber of the International Tribunal of the Sea (ITLOS) noted that “the ICJ's reasoning in a transboundary context may also apply to activities with an impact on the environment in an area beyond the limits of national jurisdiction”, and that “the Court's references to ‘shared resources’ may also apply to resources that are the common heritage of mankind.”¹⁴⁹

With respect to the specific content of the EIA, it remains to be seen whether the Espoo Convention as the only international instrument that details the procedure may shape the content of that obligation, e.g. through providing best practice. As to the question whether the EIA must at least involve consultation with the potentially affected population, the ICJ avoided the question in the *Pulp Mills* case.¹⁵⁰

In respect of SEA, there is numerous guidance in non-binding documents and treaty regimes such as the CBD,¹⁵¹ but there is not sufficient evidence to assume a customary obligation to carry out SEA. The SEA Protocol to the Espoo Convention provides binding rules and entered into force in 2010, but its 23 European parties provide relatively small impetus to a global obligation so far. The ICJ judgements in the *Pulp Mills* case and the *Costa Rica* case do not necessarily establish a general requirement for a SEA. There is therefore no globally applicable obligation to integrate SEA of proposed mining policies, plans or programmes into potential mining policy development.

¹⁴³ CBD Decision VI/7, U.N. Doc. UNEP/CBD/COP/6/20 at 93.

¹⁴⁴ “Rio Declaration on Environment and Development”, Rio de Janeiro, 13 June 1992, UN Doc. A/CONF. 151/26.Rev.1.

¹⁴⁵ See the World Bank's Operational Manual “OP 4.01 – Environmental Assessment of January 1999, available at <https://pol-icies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f7384.pdf> (last accessed 28 February 2019).

¹⁴⁶ *Pulp Mills on the River Uruguay (Argentina/Uruguay)*, Judgment, 20 April 2010, *ICJ Reports* (2010), at 14, para 204; *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica/Nicaragua)*, Judgment, 16 December 2015, *ICJ Reports* (2015), at 665, para 104.

¹⁴⁷ *ICJ Reports* (2015), *ibid.*

¹⁴⁸ Dupuy and Viñuales (2015) at 69-70.

¹⁴⁹ *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion of 1 February 2011 (ITLOS case No. 17), para. 148.

¹⁵⁰ Dupuy and Viñuales (2015) at 70.

¹⁵¹ Cf. the CBD's draft guidance on biodiversity-inclusive strategic environmental assessment, decision VIII/28 and document UNEP/CBD/COP/8/27/Add.2.

Applicability to abiotic resources and environmental and social impacts of their extraction, processing and transport

As mentioned before, the duty to conduct an EIA is applicable to any kind of activity likely to have a significant adverse impact, at least in a transboundary context. This includes resource extraction, processing, transport and storage of abiotic resources.¹⁵²

While it is clearly a tool to take potential environmental harm into account, social impacts resulting from such environmental harm may be included as well, as it is the case with the Espoo Convention.¹⁵³ However, as mentioned above, the ICJ left it to the states to determine the specific content of the impact assessment required.

Assessment

The duty to conduct an EIA is recognised by international customary law for any kind of activity likely to have a significant adverse impact on the environment, including activities related to the extraction or other and other activities concerning abiotic resources. However, both its scope of application and its content are unclear. While the ICJ acknowledged the duty in a transboundary context, it may well extend to areas beyond national jurisdiction, like the deep seabed. As to its specific content, it is primarily up to the individual states to determine the specific content of the impact assessment required, which may limit the duty's effectiveness.¹⁵⁴ However, the ICJ noted that the obligation involves continuous monitoring of the activity's effect on the environment. As a legal rule in customary international law, this is an important development that might require clarification as to its precise implications. Otherwise, it remains to be seen whether the Espoo Convention as the only international instrument that details the procedure may shape the content of that obligation, e.g. through providing best practice.

Summary

The duty to conduct an Environmental Impact Assessment (EIA) is included in several international treaties and recognised as international customary law. It is applicable to any activity that is likely to have a significant adverse impact, at least in a transboundary context which includes extraction and other activities concerning abiotic resources. While it is up to the individual states to determine the specific content of the impact assessment required, which may include the assessment of social impacts resulting from potential environmental harm, the obligation at least involves continuous monitoring of the activity's effect on the environment.

2.1.1.8 Equitable utilization of shared natural resources

Development and Content

The principle of shared natural resources applies to resources which do neither fall within the exclusive control of one state nor belong to areas beyond national jurisdiction. This intermediate category stands for "a limited form of community interest, usually involving a small group of states in geographical contiguity, which exercise shared rights over the resources in question".¹⁵⁵ International surface waters are the oldest and by far the most important examples of shared natural resources.¹⁵⁶ Other

¹⁵² On the relevant activities listed in Annex I of the Espoo Convention see the analysis of the Convention at Section 2.1.2.9.

¹⁵³ See the analysis on the Espoo Convention at Section 2.1.2.9.

¹⁵⁴ See e.g. the assessment of Art. 14 CBD in the analysis of the Convention on Biological Diversity at Section 2.1.2.8.

¹⁵⁵ Birnie et al (2009) at 192.

¹⁵⁶ Durner (2001) at 75.

important examples include migratory species and liquid and gaseous mineral deposits (for the latter see below).¹⁵⁷

Beyond its application to specific areas, there have been attempts to generalise the principle of equitable utilisation of shared natural resources. Based on earlier UN General Assembly resolutions on the subject¹⁵⁸, the Governing Council of UNEP adopted in 1978 “Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States”.¹⁵⁹ According to Principle 1 (Duty to Co-operate)

“it is necessary for States to cooperate in the field of the environment concerning the conservation and harmonious utilization of natural resources shared by two or more States. Accordingly, it is necessary that consistent with the concept of equitable utilization of shared natural resources, States cooperate with a view to controlling, preventing, reducing or eliminating adverse environmental effects which may result from the utilization of such resources. Such co-operation is to take place on an equal footing and taking into account the sovereignty, rights, and interests of the states concerned.”

The subsequent principles are variations and developments of the principle of equitable utilisation of shared natural resources, albeit with a focus on environmental aspects.¹⁶⁰

According to *Durner*¹⁶¹, the principle of equitable utilisation of shared natural resources has also been incorporated in a general way into the 1994 Convention against Desertification.¹⁶² Pursuant to Article 11 UNCCD, subregional action programmes “shall establish [...] mechanisms for the management of shared natural resources”, and priority areas for such programmes shall focus on “joint programmes for the sustainable management of transboundary natural resources through bilateral and multilateral mechanisms”.

As shown by these examples, the principle of equitable utilisation of shared natural resources aims at ensuring a balance of interests between the parties concerned.¹⁶³ As with other general norms and principles, the content that can be regarded as widely accepted is rather vague. First, it limits the principle of permanent sovereignty over natural resources because other states also have the right to equitably use the shared resource.¹⁶⁴ Second, it is basically procedural, the most important component being the obligation to cooperate.¹⁶⁵ More specific procedural duties can only be discerned for certain areas, notably for international watercourses¹⁶⁶, but not be deduced generally.¹⁶⁷ Third, the principle requires the interest of all countries to be taken into account, but does neither prohibit damages to shared natural resources nor require their protection.¹⁶⁸ Together, the material right of all states that

¹⁵⁷ See *Durner* (2001) at 75 et seq.; *Birnie et al* (2009) at 192, with further examples.

¹⁵⁸ See UN Doc. A/RES/3129/XXVIII and especially Art. 3 of the “Charter of Economic Rights and Duties of States”, 12 December 1974, UN Doc. A/RES/3281/XXIX: “In the exploitation of natural resources shared by two or more countries, each state must cooperate on the basis of a system of information and prior consultations in order to achieve optimum use of such resources without causing damage to the legitimate interests of others.”

¹⁵⁹ ILM 17 (1978), 1091.

¹⁶⁰ *Durner* (2001) at 114-115.

¹⁶¹ *Durner* (2001) at 112.

¹⁶² Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 14 October 1994, entered into force on 26 December 1996 (UNCCD), United Nations, Treaty Series, vol. 1954, at 3.

¹⁶³ *Birnie et al* (2009) at 194; *Durner* (2001) at 120.

¹⁶⁴ See *Durner* (2001) at 117-118 with further references.

¹⁶⁵ *Durner* (2001) at 120.

¹⁶⁶ According to the arbitration award in the *Lac Lanoux* arbitration, they include the duties of prior information, appropriate consideration of the interests of the other side(s), and of negotiations in good faith, see *Durner* (2001) at 130-131 with further references. For the challenges of implementing the principle to transboundary watercourses see *Rieu-Clarke and Spray* (2013), at 14 et seq.

¹⁶⁷ *Durner* (2001) at 130-131.

¹⁶⁸ *Durner* (2001) at 122 et seq.

share the resource, and the procedural component arguably limit any one state's right to simply insist on its own position.¹⁶⁹ In practice, the principle has often been made operative through bilateral treaties.¹⁷⁰

Status

As recognised by the International Court of Justice in the *Gabcikovo-Nagymaros Project* case¹⁷¹, equitable utilisation is recognised as the main customary law rule governing the use and allocation of international surface waters.¹⁷² Beyond this area, however, it is unclear to what extent the principle reflects customary law. According to a large part of the literature, the UNEP principles represent customary international law.¹⁷³ However, although they can be said to reflect contemporary international law in many ways and the practice of a significant number of states, the principles have been controversial from the beginning and should not be considered as settled law supported by all states.¹⁷⁴ Thus, the principle of equitable utilisation of shared natural resources reflects customary law only for some areas covered by state practice, notably international watercourses, but also groundwater resources as well as liquid and gaseous minerals (see below).¹⁷⁵

Applicability to abiotic resources and environmental and social impacts of their extraction, processing and transport

The most notable omission from the UNEP Principles and UN resolutions on the subject is that they do not define what resources should be treated as shared; according to the UNEP Executive Director, at least river systems, enclosed and semi-enclosed seas, air sheds, mountain chains, forests, conservation areas, and migratory species should be included.¹⁷⁶ While abiotic resources are not mentioned in this enumeration, there is an extensive state practice on cooperation in the exploitation of transboundary mineral deposits.¹⁷⁷ This is especially the case with oil and gas deposits, while solid minerals can often be exploited without transboundary cooperation along the respective frontiers.¹⁷⁸ A common feature of treaties on transboundary cooperation is cooperation through common institutions and the sharing of permitted flow rates or profits.¹⁷⁹ According to parts of the literature, this state practice on shared mineral deposits establishes a duty to enter in negotiations in good faith on possibilities of transboundary cooperation.¹⁸⁰ Other parts of the literature are reluctant to recognise such a duty as customary law.¹⁸¹ In the *North Sea Continental Shelf* case, the ICJ declared such agreements to be "particularly appropriate when it is a question of preserving the unity of the deposit"¹⁸², albeit without recognising an obligation to enter into corresponding negotiations.¹⁸³

The extraction, processing and transport of minerals can require the use of shared surface and ground waters or have adverse effects on them. While the principle of equitable use originally applied to

¹⁶⁹ Durner (2001) at 121 with further references.

¹⁷⁰ Durner (2001) at 122, 134.

¹⁷¹ See ICJ, *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), ICJ Reports (1997), at 56 para. 85: "right to an equitable and reasonable share of the natural resources of the Danube", para 140.

¹⁷² Birnie et al (2009) at 202; Hey (2016), at 61 et seq.

¹⁷³ See e.g. the references in Durner (2001) at 135.

¹⁷⁴ Birnie et al (2009) 193; see also Durner (2001) at 136.

¹⁷⁵ Durner (2001) at 136.

¹⁷⁶ See Birnie et al (2009) 193 with references. See also Durner (2001) at 115.

¹⁷⁷ See Durner (2001) at 93 et seq.

¹⁷⁸ Durner (2001) at 93.

¹⁷⁹ Durner (2001) at 93-95 with examples.

¹⁸⁰ See the references in Durner (2001) at 95-96.

¹⁸¹ See the references in Durner (2001) at 95-96.

¹⁸² ICJ Reports 1969, at 52, para. 99.

¹⁸³ Durner (2001) at 95-96.

shared surface water resources only, it is increasingly applied to shared groundwater resources as well.¹⁸⁴ For the use of shared water resources the obligations to cooperate with other states and to take their interests into account can be derived from the principle of equitable use of shared resources (see above). Beyond this, there is no obligation to prevent or reduce negative effects. Principle 21 of the Stockholm Convention only requires states not to cause damage to the environment of other states or of areas beyond limits of natural jurisdiction and is therefore as such not applicable to shared resources.¹⁸⁵ The principle of equitable use of shared resources merely aims to balance different interests of the states, but does not aim at environmental protection.¹⁸⁶ Finally, there is no separate principle in international customary law obliging states to protect shared resources.¹⁸⁷ Therefore, states only have to take the negative effects of the extraction, processing and transport of minerals on shared surface and groundwater resources into account when balancing the different interests of affected states.¹⁸⁸ The principle of equitable utilization is deficient in addressing environmental impacts.¹⁸⁹

Assessment

The principle of equitable utilisation of shared natural resources does not apply to transboundary mineral deposits in general, but may reflect customary law applicable to transboundary liquid and gaseous minerals. It is exclusively concerned with the division of the resources or the profits resulting from exploitation between the parties concerned.

The principle also applies to transboundary surface water resources and may even be applicable to transboundary groundwater resources. However, environmental impacts correlated with the extraction, processing and transport of minerals are not prohibited. They are just one interest to be taken into account when using shared water resources.

Summary

The principle of equitable utilisation of shared natural resources applies to resources which do neither fall within the exclusive control of one state nor belong to areas beyond national jurisdiction. In limiting the principle of permanent sovereignty over natural resources, it aims at ensuring a balance of interests between the parties concerned. While the contours of the principles are still rather vague, it is settled that it is basically procedural, the most important component being the obligation to cooperate. Beyond its relevance for international watercourses, it is unclear to what extent the principle reflects customary law. State practice on deposits of transboundary liquid and gaseous minerals shows that the principle is exclusively concerned with the division of the resources or the profits resulting from exploitation between the parties concerned. Impacts of mineral extraction, processing or transport on transboundary water resources are one interest to be taken into account, but do not have to be prevented *per se*.

¹⁸⁴ Hall (2004) at 881-882; Durner (2001) at 133; Dellapenna (2001) at 274 et seq.

¹⁸⁵ Durcner (2001) at 122-123.

¹⁸⁶ Durner (2001) at 123-124.

¹⁸⁷ Durner (2001) at 124-126.

¹⁸⁸ Dupuy and Vinuales (2015) at 110-111.

¹⁸⁹ Birnie (2009) at 202.

2.1.1.9 State responsibility

Development and Content

The rules on state responsibility regulate whether there has been a breach of international law and the legal consequences of that breach. They are secondary rules and general in nature, applying to all types of binding primary norms, acts and omissions, or areas of international law.¹⁹⁰

In 1928 the Permanent Court of International Justice established in the *Chorzow Factory* case the general principle that states have to make reparation for an illegal act. This principle was later affirmed by the ICJ in the *Gabcikovo Nagymaros* case.¹⁹¹ States have to make reparations for injuries caused by the breach of an international obligation – under certain conditions.¹⁹² According to the Rules of State Responsibility codified by the International Law Commission, these conditions are that (1) the conduct in question must be attributable to the State, (2) the conduct must constitute a breach of an international obligation of that state, and (3) no circumstances may prevail that could preclude the wrongfulness (e.g. force majeure). The legal consequence is that the state responsible is under a new obligation to cease the internationally wrongful act and make full reparation for injuries caused.¹⁹³ The forms of reparation include restitution, compensation and satisfaction, separately or in combination. The ICJ has referred to these elements in several occasions and they are widely undisputed.¹⁹⁴

The rules on state responsibility are not limited to any specific subject area and apply to any primary obligation that covers abiotic resources. The conduct of private actors is not directly attributable but the state might be responsible for not exercising due diligence in controlling the private act under its jurisdiction.¹⁹⁵ In such cases a state might for instance be responsible under international law for transboundary environmental impacts caused by a private mining operation.

Status

It is established customary law that states are responsible for internationally wrongful acts. The International Law Commission's Articles on Responsibility of States for Internationally Wrongful Acts of 2001 for the most part reflect customary law, although some details may not be universally accepted.¹⁹⁶

Assessment

The rules on state responsibility are important secondary rules and contribute to enforcing primary rules. Their effectiveness is, however, dependent on the quality of the primary rule, i.e. its specificity. In international environmental law primary rules are often vaguely phrased which makes it difficult to establish a breach with certainty and apply the rules of state responsibility. Furthermore, it is often a legal challenge to establish the causal link between the harmful act and the damage.¹⁹⁷

¹⁹⁰ Fitzmaurice (2007) at 1016.

¹⁹¹ *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), I.C.J. Reports 1997, 112, para. 149.

¹⁹² Lefeber (1996) at 47; ILC, Draft Articles on Responsibility of States for Internationally Wrongful Acts, UN Doc. A/56/10, Art. 1, comm. 2; Boyle (2005) at 6.

¹⁹³ ILC, Draft Articles on Responsibility of States for Internationally Wrongful Acts, UN Doc. A/56/10, Articles 28-33.

¹⁹⁴ *United States Diplomatic and Consular Staff in Tehran* (USA v. Iran), Judgement, I.C.J. Reports 1980, p. 3, para. 56; *Phosphates in Morocco*, Judgement 1938, P.C.I.J., Series A/B No. 74, 10, at 28; *Gabcikovo-Nagymaros Project* (Hungary v. Slovakia), I.C.J. Reports 1997, 112, para. 78.

¹⁹⁵ See Shaw (2008) at 789; see for the link to the due diligence concept Christiansen (2016) at 48.

¹⁹⁶ For instance, Ipsen in: Ipsen (2014) at 578 holds that the Draft Articles on the legal consequences are "for a good part" customary law, albeit without stating which parts are not.

¹⁹⁷ See for the details Kiss and Shelton (2007) at 20; Plakokefalos (2015).

For the specific case of international environmental law and related social standards, the question of standing becomes particularly relevant. According to the rules of state responsibility, it is the injured state that may invoke the responsibility of another state.¹⁹⁸ A breach of international environmental law, e.g. climate change law, may have impacts on a wider group of states or the international community as a whole. In case of damages to global environmental goods or goods of common concern it is not clearly established who would enjoy standing for invoking the breach of such *erga omnes* obligations.¹⁹⁹

As restitution will often not be a realistic remedy for breaches of environmental law, compensation will be more realistic. For instance, the depletion of natural resources has been addressed through compensation claims.²⁰⁰ However, there are high uncertainties surrounding the appropriate level of compensation costs, especially if damage reaches beyond economic loss or damage to property.²⁰¹

State responsibility provides a basic legal framework to address breaches and may also serve as a disincentive for breaches. Where there are no clearly established primary obligations under international law relating to the environmental, the ongoing debate, whether states can be responsible without fault for damage caused by activities that are lawful but nevertheless hazardous, could be relevant.²⁰²

Summary

The rules on state responsibility are secondary rules to enforce primary rules: they determine whether there has been a breach of a primary rule of international law and what the consequences of that breach are. Their effectiveness – and their potential impact on mining operations – thus depends on the nature the primary rules which they intend to help enforce. Where there are no clearly established primary obligations under international law relating to environmental and social standards, it could be relevant to revisit the debate on whether states can be responsible for damage caused by activities that are lawful but nevertheless hazardous. As in other concepts and obligations, this would also raise questions of when a mining operation amounts to risky conduct and when it “causes” harm in the legal sense.

¹⁹⁸ ILC, Draft Articles on Responsibility of States for Internationally Wrongful Acts, UN Doc. A/56/10, Article 42.

¹⁹⁹ Birnie et al. 233, Beyerlin and Marauhn (2011) at 363; Verheyen (2005); Dupuy (2012); Christiansen (2016) at 50.

²⁰⁰ ILC, Draft Articles on Responsibility of States for Internationally Wrongful Acts, UN Doc. A/56/10, Commentary to Article 36, para 14.

²⁰¹ Birnie et al (2009) at 229.

²⁰² See e.g. Ipsen in: Ipsen (2014), 560-561. The ILC has excluded this from its Draft Articles on State Responsibility, see Birnie et al (2009) at 223.

2.1.2 International environmental treaties

2.1.2.1 Paris Agreement

Table 1: Paris Agreement (adoption: 12 December 2015; in force: 4 November 2016)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Keep global temperature rise well below 2°C, striving for 1.5°C
Parties	185 (as of 28 Feb 2019)
Territorial scope	Global
Resources covered	Although not specifically addressed: Fossil resources and all resources for which fossil energy is used during extraction, processing and transport
Stage of the value chain	All stages
Steering mechanisms	Information, regulation, planning
Political weight	+++
Relevance	+

Summary

The Paris Agreement aims at reducing GHG emissions, regardless of the economic sector, and at adapting to climate change. Although its obligations are general and not resource-specific, reducing emissions necessitates extracting less fossil resources, because the combustion of fossil fuels is the main source of GHG emissions. Although they are not specifically addressed, the Paris Agreement also covers GHG emissions occurring during the extraction, processing and transport of abiotic resources. Many of the provisions of the Paris Agreement lack precision and prescriptiveness and do not create clear legal obligations for parties regarding specific actions. The most important GHG emitters have supported and already ratified the Paris Agreement, which indicates that at least these important players will probably implement it.

Overview

Form and legal status: The Paris Agreement²⁰³ is a treaty that was adopted on 12 December 2015 under the United Nations Framework Convention on Climate Change (UNFCCC).²⁰⁴ The Agreement entered into force on 4 November 2016, after the threshold of at least 55 ratifying states accounting for at least 55% of global greenhouse gas (GHG) emissions had been met. The 185 Parties²⁰⁵ include the biggest GHG emitters like the USA, China, India, the EU and most EU member states, including Germany. However, the USA has announced its intention to withdraw from the Paris Agreement.²⁰⁶ In November 2018, the Conferences of the Parties (COP) of the UNFCCC and the Paris Agreement adopted a package of implementing decisions providing details, standards and procedures for implementation.

Objectives: The objective of the Agreement is to keep the increase in global temperature well below 2°C, or even 1.5°C, to increase the ability to adapt, and to make finance flows consistent with low-carbon development. The Agreement also aims to drive down GHG emissions to net-zero in the second half of the 21st century.

²⁰³ Paris Agreement, Paris, 12 December 2015, online available at https://treaties.un.org/doc/Treaties/2016/02/20160215%2006-03 PM/Ch_XXVII-7-d.pdf.

²⁰⁴ 1992 United Nations Framework Convention on Climate Change, New York, 9 May 1992, 1771 UNTS 107

²⁰⁵ As of 28 February 2019, see <https://unfccc.int/process/the-paris-agreement/status-of-ratification>.

²⁰⁶ See also below on the political weight.

Territorial scope: The Agreement is open to all parties of the UNFCCC. It binds all its parties on their respective territories.

Type of steering tool: The Paris Agreement uses what many call a “bottom-up” structure: it is based mainly on planning (nationally determined contributions, national adaptation plans, 2050 climate strategies) and transparency obligations (reporting on climate policies, GHG emission inventories), and relies on peer pressure and public pressure to safeguard ambition.

Links to extraction, processing and transport of resources

Resources covered: The Paris Agreement targets anthropogenic GHG emissions and thus indirectly impacts the extraction, processing and transport of resources in various ways: (1) The objective of net-zero GHG emissions can only be met if the use of coal, oil and gas is reduced to near zero in the coming decades, which implies that the extraction of these resources would need to be significantly reduced; (2) Extraction, processing and transport of most resources requires high levels of energy, which is traditionally fossil-based and thus GHG-intensive. In order to reduce GHG emissions as required by the Paris Agreement, the extractive industries have to either switch to cleaner energy sources or reduce their activities; (3) Certain resource extraction processes cause fugitive GHG emissions, e.g. in the case of coal mining, or gold and copper mining when mines are located close to methane containing deposits.²⁰⁷

Environmental and social impacts covered: At a general level, to the extent that the Paris Agreement would lead to in particular less fossil resources extraction, the related impacts would also be reduced. The Paris Agreement’s commitments to reduce GHG emissions also covers GHG emissions that are related to, or released by, resource extraction. Since many policies that target GHG emissions impact particulate matter, this indirectly also touches on air pollution. The Paris Agreement does not specifically address the social impacts of resource extraction but does address the impacts of climate change (adaptation and loss and damage) although the relevant obligations are not very specific. It should be noted that the preamble of the Paris Agreement also mentions the social impacts of addressing climate change. The reference to the „imperatives of a just transition of the workforce” is linked to the social consequences of e.g. phasing out fossil fuel extraction.

Steps of the value chain covered: The Paris Agreement does not address specific steps of the value chain of a resource individually. It covers all anthropogenic GHG emissions and does not differentiate between the different sources of emissions.

Content

Relevant obligations for parties: The Paris Agreement was a huge diplomatic effort and the quest for consensus among all UNFCCC parties on a binding instrument came at the expense of detail and precision. Many of the obligations use “should” instead of “shall”, are phrased vaguely, or are qualified by expressions like “as appropriate”. This means that not all provisions in the Paris Agreement are equally prescriptive or precise.²⁰⁸

The Paris Agreement establishes the collective goal for parties to peak GHG emissions as soon as possible and to reduce GHG emissions to net-zero by the second half of the century. Parties are required to prepare and present individual climate plans (nationally-determined contributions, NDCs) every five years that set out how the party intends to contribute to the collective objectives. Parties are not obliged to implement or achieve these plans exactly as submitted, but they have to take measures with the aim of achieving these NDCs. There are not many specific rules as to the content, and none on the

²⁰⁷ Jain et al. (2016).

²⁰⁸ Bodle et al. (2016), S. 17; for detailed analysis see Bodle and Oberthür (2017).

ambition level of the NDCs.²⁰⁹ The Agreement thus leaves a lot of leeway to countries on the approach they take to reducing GHG emissions and on which sectors to focus. The NDCs presented so far vary widely with respect to specificity (some only mention relevant policy fields, others set quantitative targets) and coverage. However, each successive NDCs is supposed to be more ambitious than the previous one, which means that in the long-term GHG emissions in all sectors, including the mining sector, need to be phased-out if the objectives of the Paris Agreement are taken seriously.

Parties are also invited to prepare long-term low-GHG emission strategies. As with NDCs, there are no rules as yet for their content, and some of the strategies already presented only summarise existing research without setting specific targets or defining policy pathways. Mexico's long-term strategy sets the objective to reduce fugitive methane emissions from mining operations.²¹⁰

The Agreement also explicitly aims at making finance flows consistent with low-GHG and climate resilient development but it does not specifically require parties to e.g. revise their subsidy policies or to introduce carbon pricing. Time will tell whether parties will develop further guidelines for implementation of this overarching purpose and how they will address it.²¹¹

Institutions, reviews and decision-making

Institutions: The Paris Agreement has the now usual institutional structure in line with the approach of modern MEAs. It establishes a Conference of the Parties to the Paris Agreement (CMA) and other permanent bodies that guide, review and evaluate the treaty's implementation.

Reporting: The Paris Agreement establishes a transparency framework under which Parties have to regularly report on their GHG emissions and on their progress in implementing their NDCs. While the reporting details still need to be agreed, inventory reports have to follow the IPCC guidelines which require reporting on emissions from mining.²¹²

Evaluation and review: The Agreement can be considered a "living treaty": The Agreement itself only provides a skeleton of what parties are to do, further details are spelled out in the COP-decision that accompanied the adoption of the Agreement. Many issues were left for COP/CMA decisions to allow for future development without needing to undergo a treaty amendment procedure.²¹³

Compliance procedures, remedies and dispute settlement procedures: An implementation and compliance committee is envisaged to promote implementation of, and compliance with all obligations under the Agreement. The details on the modalities and procedures of the committee have been determined by the CMA in 2018.²¹⁴

Stakeholder and public involvement: The Paris Agreement recognises the importance of public participation and engagement of different actors in addressing climate change. The Agreement itself does not establish specific mechanisms in this respect but the accompanying COP decision has established various fora to cooperate with sub-national government levels, the private sector and civil society, e.g. on

²⁰⁹ See the 2018 CMA decision 4/CMA.1, „Further guidance in relation to the mitigation section of decision 1/CP.21“, FCCC/PA/CMA/2018/3/Add.1.

²¹⁰ See Long-term strategies on UNFCCC website: http://unfccc.int/focus/long-term_strategies/items/9971.php.

²¹¹ See the 2018 CMA decision 14/CMA.1, Setting a new collective quantified goal on finance in accordance with decision 1/CP.21, paragraph 53“, FCCC/PA/CMA/2018/3/Add.2, para 2.

²¹² Category 1.b.1 and 2.c. See Decision 18/CMA.1, “Modalities, procedures and guidelines for the transparency framework for action and support referred to in Article 13 of the Paris Agreement“, FCCC/PA/CMA/2018/3/Add.2, Annex I, para 20.

²¹³ See the „Paris rulebook“, a set of decisions adopted in 2018 at the COP24 climate conference in Katowice. Overview at <https://unfccc.int/process-and-meetings/the-paris-agreement/katowice-climate-package>.

²¹⁴ See the 2018 CMA decision 20/CMA.1, „Modalities and procedures for the effective operation of the committee to facilitate implementation and promote compliance referred to in Article 15, paragraph 2, of the Paris Agreement“, FCCC/PA/CMA/2018/3/Add.2.

specific mitigation opportunities. Here too, time will tell whether this new approach will complement the political momentum and push governments towards ambitious implementation.

Assessment

Coherence with other international treaties and policies: The Paris Agreement is a treaty under the UNFCCC, which is a framework convention with few specific obligations. The Paris Agreement is thus not meant to replace the UNFCCC but rather to specify its framework. Since all economic sectors cause GHG emissions, addressing climate change is a broad undertaking that touches on many policy fields. There are thus many potential overlaps, conflicts and synergies with other international treaties that do not specifically target climate change, ranging from the international trade regime and investment law to the CBD or treaties on specific sectors like international shipping. The Paris Agreement does not address environmental or social impacts of mining except for the emissions caused by using the extracted fossil fuels. The Paris Agreement addresses the whole economy but leaves it to parties to decide „how“ to reduce GHG, which means that there is basically neither coherence nor incoherence.

Political weight of the instrument: 195 UNFCCC parties signed the Paris Agreement. It entered into force in record time and has so far gathered 185 ratifications. It enjoys a high level of explicit political support.²¹⁵ However, following previous statements by the US president, in August 2017 the USA, one of the biggest emitters, announced its intention to withdraw from the Paris Agreement and that it would stop implementing its NDC. Under the Paris Agreement's rules, a withdrawal would not take effect before 4 November 2020. So far, the US statement has had very little negative impact on the political weight of the Paris Agreement. Many other parties and stakeholders, including at sub-national level in the USA, have indicated that they will stick to it and continue to implement it.²¹⁶

Consideration of small and medium-scale companies: The Paris Agreement does not establish obligations directly linked to specific private actors.

Effectiveness: The Paris Agreement only recently entered into force and the first round of NDCs cover periods starting from 2020. There are thus no data available yet on the effectiveness of the instrument.

Political opportunities and good practice examples:

- ▶ Assess whether emissions from mining activities are sufficiently relevant to justify addressing them as a separate topic. Otherwise it might be better to focus on phasing out fossil fuels.
- ▶ Technical expert meetings on mitigation opportunities could discuss GHG emissions from the mining sector.
- ▶ Assess if there is a useful link between low-emission mining and social standards.

²¹⁵ See e.g. the G20 Leaders' Declaration, 7/8 July 2017, 9-10 and the G20 Hamburg Climate and Energy Action Plan for Growth.

²¹⁶ For instance, the other 19 leaders of the G20 confirmed that the Paris Agreement was „irreversible“, G20 Leaders' Declaration, 7/8 July 2017, at 10.

2.1.2.2 United Nations Convention on the Law of the Sea; Agreement on the Implementation of Part XI of the 1982 Convention on the Law of the Sea

Table 2: UN Convention on the Law of the Sea (adoption: 10 December 1982; in force: 16 November 1994)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Govern various issues related to the seas
Parties	168, incl. Germany and the EU
Territorial scope	Global
Resources covered	All of the resources in the seas
Stage of the value chain	Mining, transport, waste disposal
Steering mechanism	Regulatory (prohibitions and other obligations), information and reporting tools
Political weight	+++ Global participation except for US, partly customary law
Relevance	++ Concerning minerals in deep seabed, effective only with IA

Table 3: Agreement on the Implementation of Part XI (adoption: 28 July 1994; in force: 16 November 1994)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Establish a regime to explore and exploit resources in the deep seabed
Parties	150, incl. Germany and the EU
Territorial scope	Global
Resources covered	Especially minerals and metals in the deep seabed
Stage of the value chain	Mining
Steering mechanism	Regulatory and information tools
Political weight	+++ Global participation except for US, partly customary law
Relevance	+++ Modified strict control regime, Mining Code contains environmental standards

Summary

The United Nations Convention on the Law of the Sea (UNCLOS) and the Agreement on the Implementation of Part XI of the 1982 Law of the Sea Convention (Implementing Agreement) establish a comprehensive regulatory regime governing the world's oceans and the (deep) seabed and its resources. It divides the sea into different spatial zones (internal waters, territorial sea, continental shelf, exclusive economic zone, deep seabed, high seas) with different rights and duties of all states, including to abiotic marine resources. These resources are addressed at the first step of value chain (extraction). UNCLOS sets the general duty to protect and preserve the marine environment for all states, including for coastal states in areas in which they have jurisdiction or retain sovereign rights to exploits resources.

It differentiates between pollution of the marine environment from land-based sources and pollution caused at sea such as dumping. It does not contain any social standards.

The deep seabed (the “Area”) and its resources are defined as “common heritage of mankind” and not subject to sovereign rights. The Implementing Agreement exclusively addresses the Area and is to be applied together with UNCLOS’ provisions as a single instrument. Exploration and exploitation of mineral resources in the Area are administered by an international institution, the International Seabed Authority that acts on behalf of mankind. Both the original UNCLOS regime as well as the modified regime under the Implementing Agreement are clearly focused on exploiting mineral resources for the benefit of all given that the marine environment is effectively protected from harmful effects caused by mining operations. Activities in the Area have to be conducted in accordance with the Mining Code that is continuously developed by the International Seabed Authority. The Mining Code already contains regulations for the exploration of different metals that have more elaborated environmental requirements than the Part XI and the Implementing Agreement. Recent draft regulations for exploitation show that higher environmental standards are required for the actual exploitation of resources in the Area. All regulations include social standards.

Overview

Form and legal status: The UN Convention on the Law of the Sea (UNCLOS)²¹⁷ and the Agreement on the Implementation of Part XI²¹⁸ (Implementing Agreement) are two binding international treaties but form one single instrument (Art. 2 (1) of the Implementing Agreement). The UNCLOS is often referred to as the “Constitution of the Seas”²¹⁹ due to its near-universal participation and wide coverage. Even states that are not party to the UN can accede to the Convention (Art. 305 UNCLOS).²²⁰ Additionally, a considerable amount of the provisions of the UNCLOS are considered to be customary international law.²²¹ Notably, the UNCLOS, in principle, does not allow reservations.

The Convention follows a zonal approach. Each zone differs with regard to the rights and duties that are allocated to coastal states. Within its internal waters and territorial sea, coastal states enjoy sovereignty. In the contiguous zone (Art. 33), the exclusive economic zone (Art. 40ff.), and the continental shelf (Art. 76ff.) the UNCLOS allocates sovereign rights with regard to economic activities in these zones. The two remaining zones, the High Seas and the Area, are exclusively ruled by international law rules and any sovereignty claims are invalid (Art. 89 and 137 (1)). Mineral extraction takes place in the continental shelf and the Area and is, thus, either managed nationally or internationally. Despite its title, the Implementing Agreement considerably amends Part XI of the UNCLOS²²² and prevails in case of inconsistency between Part XI of the UNCLOS and the Agreement (Art. 2 (1) of the Implementing Agreement).

Any state acceding to the Implementing Agreement is automatically bound by the UNCLOS (Art. 4 (2) of the Implementing Agreement). Similarly, each state that accedes to the UNCLOS after the Implementing Agreement entered into force also accedes to the Implementing Agreement (Art. 4 (1) of the Implementing Agreement).

Objectives: One objective of the UNCLOS is to settle issues arising from various human activities at sea by establishing a widely accepted instrument.²²³ This includes the promotion of the “study, protection

²¹⁷ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, in force since 16 November 1994, UN Doc. I-31363.

²¹⁸ Agreement on the Implementation of Part XI of the 1982 Law of the Sea Convention, New York, 28 July 1994, UN Doc. I-31364.

²¹⁹ Jenisch (2013) at 842.

²²⁰ United Nations (2012) at 3.

²²¹ Churchill & Lowe (1999) at 24.

²²² Harrison (2011) at 92f.

²²³ See paras. 1-3 of the Preamble of the UNCLOS.

and preservation of the marine environment”.²²⁴ It also aims at applying and developing the principle of common heritage of mankind with regard to the area of the seabed (see below at territorial scope) beyond national jurisdiction and its resources; this basically means that the exploration and exploitation of this area has to be carried out for the benefit of mankind as whole.²²⁵

The main objective of the Implementing Agreement was to facilitate universal participation in the UNCLOS²²⁶ by accommodating the interests of industrialised states that were hesitating to join because of the provisions governing resource exploitation in the deep seabed.²²⁷ It substantially modified Part XI of the UNCLOS, for instance, by establishing the International Seabed Authority (ISA) as an evolving institution that grows according to its activities and financial possibilities.²²⁸ The ISA is to act on behalf of mankind and to control exploration and exploitation in the Area,²²⁹ including through the adoption of rules and regulations concerning effective protection of the marine environment and human life (Art. 146 UNCLOS, Para. 4 (g) Annex to the Implementing Agreement).

Both the original UNCLOS regime as well as the modified regime under the Implementing Agreement are clearly focused on “increased availability of the minerals derived from the Area [...] to ensure supplies to consumers of such minerals”, as well as the distribution of benefits and mitigation of negative economic impacts.

Territorial scope: The UNCLOS and the Implementing Agreement apply globally. The UNCLOS contains rules governing the world’s oceans whereas the Implementing Agreement only applies to the “Area”, which is the “sea-bed and ocean floor and subsoil thereof” beyond national jurisdiction (Art. 1 (1) UNCLOS).

Type of steering mechanism: The UNCLOS uses regulatory tools (such as allocating rights to exploit natural resources, obligations to preserve and to protect the environment; prohibition of dumping in another state’s maritime zones etc.), information tools (obligation to inform other states about marine scientific research activities; promotion of the establishment of national and regional marine scientific and technological centres, promotion of transfer of marine technology), and monitoring and reporting tools (obligation to assess risks, monitor effects and publish or provide reports). The Implementing Agreement uses regulatory tools (a comprehensive licence regime for exploring/exploiting mineral resources in the Area) combined with an institutional backbone.

Links to extraction, processing and transport of resources

Resources covered: The UNCLOS covers fossil fuels, minerals (especially the provisions governing the continental shelf), and any other abiotic resource that is explored, exploited or transported via the sea. For the Area, Art. 133 UNCLOS provides the following definitions: “(a) ‘resources’ means all solid, liquid or gaseous mineral resources in situ in the Area at or beneath the sea-bed, including polymetallic nodules; (b) resources, when recovered from the Area, are referred to as ‘minerals’”.

Manganese nodules occur in the deep seabed, i.e. beyond the outer continental shelf (which extends to max. 350 nm, Art. 76 (5) UNCLOS). They consist of different metals: primarily manganese and iron but also cobalt, copper, nickel, and traces of platinum and tellurium.²³⁰ There also are cobalt crusts (cobalt,

²²⁴ See paras. 4 of the Preamble of the UNCLOS.

²²⁵ See para. 6 of the Preamble of the UNCLOS and the analysis of the principle of common heritage of mankind in this report.

²²⁶ See para. 6 of the Implementing Agreement.

²²⁷ Churchill & Lowe (1999) at 20.

²²⁸ Churchill & Lowe (1999) at 238.

²²⁹ Elferink, Alex G. Oude (2013): *Mining the Seabed Beyond National Jurisdiction: the Legal Framework*, Presentation held at the Exploring the Dark Symposium, Utrecht, 14 March 2013, at 7.

²³⁰ World Ocean Review (2017): “Marine Minerals”, available on the internet at <http://worldoceanreview.com/en/wor-1/energy/marine-minerals/> (last accessed 28 February 2019).

platinum, and other metals) and sulphur-rich ores.²³¹ These nodules and crusts are covered by Part XI of the UNCLOS and the Implementing Agreement.

Environmental and social impacts covered: The UNCLOS reiterates the general principle that states have the sovereign right to exploit their natural resources but qualifies that right by the obligation “to protect and preserve the marine environment” (Art. 192, 193). This general obligation covers environmental impacts from various marine activities, including the extraction of mineral resources and their transport. Due to the requirement to protect the environment from *any* source (Art. 194 (1)) and the subsequent inclusion of land-based pollution in Art. 194 (3) (a), it can be argued that Art. 192 ff. also cover mineral extraction at land.²³² However, this is limited to mineral extraction at land that pollutes the marine environment, for instance through a river (pollution from land-based sources, Art. 207 (1)). With regard to activities in the Area, both the marine environment and human life are to be effectively protected (Art. 145 and 146). Examples for the covered activities are drilling, dredging, disposal of waste and the construction and operation/ maintenance of installations (Art. 145 (a)).

Neither the Convention nor the Implementing Agreement and its annexes refer to social standards. However, safety, labour and health standards are included in the Mining Code issued by the International Seabed Authority (see below), for instance in Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area.²³³ It puts forward that the contractor shall comply with standards by the ISA regarding, inter alia, occupational safety and health, labour relations, and living conditions at the works site (sect. 15 (2) of Annex IV of the Regulations on Cobalt-rich Ferromanganese Crusts). Currently, the ISA has not yet issued such standards, but this list shows which social impacts might be impacted by future ISA regulations or decisions.

Steps of the value chain covered: Part XI and the provisions on marine scientific research of the UNCLOS and the Implementing Agreement, as well as the general allocation of sovereign rights over resources, primarily affect mineral extraction. Other provisions of the UNCLOS, such as the freedom to lay pipelines and the freedom of navigation, impact transport and trade. Furthermore, the UNCLOS contains provisions on dumping of waste (see for instance Art. 194 (3) of the UNCLOS), which are developed further e.g. by the London Dumping Convention and Protocol.

Content

Relevant obligations for parties: The coastal state has full jurisdiction in its territorial sea and sovereign rights over the resources in the continental shelf (Art. 77 of the UNCLOS) and the EEZ (Art. 56 (1) (a) of the UNCLOS), including its mineral resources. As a result, other states are prohibited from exploring and exploiting resources in these zones, except when they have the permission of the coastal state. Mineral extraction in the continental shelf is subject to the general requirement to “duly protect and preserve the marine environment” (Art. 192, 193 UNCLOS). The coastal state needs to ensure that appropriate measures to prevent, reduce, and control environmental harm from mineral extraction activities are in place, using the best available means (Art. 194 (1)). The Convention differentiates between sources of pollution (Art. 194 (3) and Art. 207 ff.). This includes pollution from land-based sources and from seabed activities (Art. 207 and 208). With regard to seabed activities likely to cause pollution, coastal states are required to “adopt laws and regulations to prevent, reduce, and control pollution of the marine environment” (Art. 208 (1)). These laws and regulations shall not be “less effective than international rules, standards and recommended practices and procedures” (Art. 208 (3)).

²³¹ World Ocean Review (2017): “Marine Minerals”, available on the internet at <http://worldoceanreview.com/en/wor-1/energy/marine-minerals/2/> (last accessed 28 February 2019).

²³² Tanaka, Yoshifumi (2016): “Regulation of Land-Based Marine Pollution”, available on the internet at <https://lawexplores.com/regulation-of-land-based-marine-pollution-yoshifumi-tanaka/> (last accessed 28 February 2019) at 5.2.2.

²³³ Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISA Doc. ISBA/18/A/11, 22 October 2012, available on the internet at <https://www.isa.org.jm/documents/isba18a11> (last accessed 28 February 2019).

The international rules and standards are to be reviewed as it deems necessary (Art. 208 (5)) and constitute minimum requirements. It has been argued that the environmental standards set by the ISA in the Area (see below) should apply as minimum standards in the continental shelf (according to Art. 208 in conjunction with Art. 209).²³⁴ Regarding land-based pollution, the obligation to “adopt laws and regulations to prevent, reduce and control pollution of the marine environment” (Art. 207 (1)) does not only apply to coastal states but addresses all states. The obligation does not contain any further specifications. Regarding pollution from both seabed activities and from land-based sources, the respective states are obliged to enforce their laws and regulations (Art. 213-2014). Another important obligation for states in all maritime zones is the requirement not to transfer or transform pollution (Art. 195).

When exercising their sovereign rights, the coastal states are obliged to do so without infringing other states’ rights (for example, regarding navigation under Art. 78 (2) of the UNCLOS or the freedom to lay pipelines under Art. 79 (2)). Social standards are not set by the UNCLOS.

The Area: No state has sovereign rights over resources in the Area, which for this purpose are defined as mineral resources and belong to mankind as a whole (Art. 137, 133 of the UNCLOS). Instead, the International Seabed Authority (ISA) was set up to ensure that all exploitation activities are conducted for the benefit of mankind as a whole in accordance with the system established in Part XI of the UNCLOS and the Implementing Agreement (Art. 140 (1), 150 of the UNCLOS). Accordingly, the purpose of this system is to exploit resources and it thus rather impedes conservation of the marine environment. However, the general obligation to protect and preserve the marine environment also applies to the Area.²³⁵ States are obliged to adopt laws applicable to their ships and installations to prevent, reduce and control pollutions from activities in the Area that are as effective as the international rules etc. established for this zone in accordance with the provisions concerning the Area (Art. 145, 209 of the UNCLOS).

Through the ISA states organise and control activities in the Area, particularly with a view to administering its resources (Art. 157 (1), Annex section 1.1 of the Implementing Agreement). In an evolutionary manner, the ISA develops a regulatory framework for mining activities in the Area.²³⁶ Together with the ISA’s recommendations, these regulations form the so-called Mining Code²³⁷, which is also enforced by the ISA.²³⁸ One of the Authority’s obligations is to ensure effective protection of the marine environment and the protection of human life from harmful effects resulting from activities in the Area (Art. 145, 146 of the UNCLOS, Para. 4 (g) of the Annex to the Implementing Agreement). It adopts and enforces environmental standards for activities in the Area, such as exploration.²³⁹ Importantly, any national standards must not be less stringent than these standards.²⁴⁰ As a result, the ISA can influence the extent of liability by sponsoring states.²⁴¹ Concerning the effective protection of the marine environment, harmful activities such as drilling, dredging, excavation, and others are explicitly mentioned.

As a part of its administrative role, the ISA allocates exploration or exploitation licences to states or state sponsored entities and oversees mining activities in the Area.²⁴²

²³⁴ Lodge, Lily & Symonds (2013) at 22.

²³⁵ Ginzky & Damian (2017) at 326.

²³⁶ Jenisch (2013) at 848.

²³⁷ International Seabed Authority (2017): “Legal Instruments: The Mining Code”, available on the internet at <https://www.isa.org.jm/mining-code> (last accessed 28 February 2019).

²³⁸ Churchill & Lowe (1999) at 378.

²³⁹ Damian & Ginzky (2016) at 578.

²⁴⁰ ITLOS, Advisory Opinion, at 240.

²⁴¹ Markus & Singh (2016) at 357.

²⁴² Jenisch (2013) at 846.

A party applying for exploration has to present a Plan of Work that includes an environmental impact assessment (sect. 1 para. 7 of the Annex to the Implementing Agreement, Reg. 18 (b), (c) of the Regulations on Polymetallic Nodules²⁴³). The plan of work is reviewed by the Legal and Technical Commission, whose members are experts from the States Parties, and requires the approval of the Council. The sponsoring state has to ensure that best environmental practices are used for activities in the Area (para. 136 of the Advisory Opinion, Reg. 5 (1) of the Regulation on Polymetallic Nodules).

As soon as activities started, a monitoring process begins. On the one hand, the contractor has to establish a monitoring program on environmental effects in cooperation with the Authority (Reg. 32 of the Regulations on Polymetallic Nodules). The application of the program, on the other hand, is then monitored by the Secretary-General through annual reports of the contractor, i.e. a state or a state-sponsored entity, (Reg. 32 (2) of the Regulations on Polymetallic Nodules). If an incident of serious harm happened, the contractor has to report it promptly to the Secretary-General (Reg. 33 of the Regulations on Polymetallic Nodules). Coastal states that have grounds to believe an activity in the Area might cause serious harm to the marine environment in their zones can notify the Secretary-General (Reg. 34 of the Regulations on Polymetallic Nodules). The Regulations also empower the Authority to send inspectors on board of vessels and installations that monitor compliance (sec. 14 of Annex IV of the Regulations on Polymetallic Nodules).

Any (sponsoring) state or contractor has to comply with the Mining Code²⁴⁴. Although its recommendations are not legally binding, they increase pressure on states to respect them in order to avoid closer scrutiny of their actions by the ISA.²⁴⁵ The governing principles are the precautionary approach as it is enshrined in Principle 15 in the Rio Declaration, and “best environmental practice” in order to reduce adverse environmental impacts (Reg. 5 (1) (a), Reg. 2 (2)). The sponsoring state bears the legal responsibility to ensure that any national entity complies with Part XI of the UNCLOS (Art. 139 of the UNCLOS)²⁴⁶. As a result, sponsoring states bear both the responsibility to comply with their own obligations under the UNCLOS and the responsibility to ensure that their sponsored contractor complies with the UNCLOS (Art. 139(2), para. 177 of the Opinion). In both cases liability is only triggered when damage occurs (Art. 139(2), para. 178 of the Opinion). In that regard liability under UNCLOS differs from customary international law, which does not require a material damage. “Damage” is not defined, but causing a deterioration of the marine environment or the resources of the Area is arguably covered (para. 179 of the Opinion). The damage needs to be causally linked to the state. If liability due to a sponsored contractor is at stake, it can be excluded according to Art. 139(2), if the state has taken all necessary and appropriate measures to secure effective compliance.²⁴⁷ It has to do the utmost to ensure compliance with the applicable rules of its sponsored contractor,²⁴⁸ which constitutes a “due diligence” obligation. Accordingly, there is no strict liability in the Area.²⁴⁹ Responsibility for damages to the marine environment continues after the completion of the exploration phase (Art. 139, Reg. 30 of the Regulations on Polymetallic Nodules).

²⁴³ ISA Council, Decision of the Council of the International Seabed Authority relating to Amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters, Kingston, 15-26 July 2013, Doc. ISBA/19/C/17, available on the internet at <https://www.isa.org.jm/documents/isba19c17> (last accessed 28 February 2019).

²⁴⁴ International Seabed Authority (2017): “Legal Instruments: The Mining Code”, available on the internet at <https://www.isa.org.jm/mining-code> (last accessed 28 February 2019).

²⁴⁵ Markus & Singh (2016) at 352.

²⁴⁶ The same applies to international organizations that engage in activities in the Area.

²⁴⁷ Similarly, Annex III, Art. 4 (4) of the UNCLOS limits responsibility.

²⁴⁸ Seabed Disputes Chamber of the International Tribunal for the Law of the Sea, Advisory Opinion, Responsibility and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area at para. 110.

²⁴⁹ Advisory Opinion, at para. 189.

Recently published *Draft Exploitation Regulations*²⁵⁰ form part of the Mining Code and contain social standards and detailed environmental standards. Similar to the regulations for exploration, the Draft Regulations put an emphasis on procedural requirements, such as environmental impact assessments (EIA) and monitoring, and require the application of the precautionary approach and best environmental practices (Reg. 17 (b) (c) of the Draft Regulations). However, the regulations in the Draft Regulations are more detailed. With regard to the precautionary approach, “Best Available Scientific Evidence shall be taken into account”. Other principles, such as ecosystem-based management (Reg. 17 (d) of the Draft Regulations) shall be applied or encouraged (access to information, Reg. 17 (e) of the Draft Regulations). The regulations aim at operationalising the “effective protection” (Art. 145 of the Convention) and at maintaining a level-playing field in the Area.²⁵¹ Nevertheless, Germany criticised that the Draft Regulations from August 2017 do not contain sufficiently detailed requirements to achieve these goals.²⁵² Germany asks for specific assessment criteria for the EIA, such as quantitative environmental thresholds or a streamlined methodology to develop such a threshold. Similarly, the ISA should provide a concept for best available techniques.²⁵³ In order to provide more details, Germany suggests test mining.²⁵⁴ The test mining should be established as part of the exploration phases or as a transitional phase.²⁵⁵ A detailed regulation is considered to be necessary in order to avoid the emergence of “sponsoring states of convenience”.²⁵⁶

Compared to the exploration regulations, the procedural requirements, such as the EIA and monitoring, are stricter and, despite the criticism, more detailed. An additional procedural step is the Environmental Scoping Report, which needs to be undertaken prior to an EIA. Differing from the regulations that are already in force, the Draft Regulations contain specific information about the content of an EIA. For instance, it is to outline the applicable national and international environmental legislation (Art. 2.1 of Annex V to the Draft Regulations), whereby reference is made to the Convention on Biodiversity. Diversity, abundance, biomass, and resilience shall be analyzed with regard to the biological environment of the site (Art. 5 of Annex V to the Draft Regulations).

According to the current Draft Regulations, the Legal and Technical Commission (see “Institutions” below) only reviews a Plan of Work if the contractor enables interested persons to comment on its Environmental Impact Statement (the result of the EIA), Environmental Management and Monitoring Program (EMMP) and Closure Plan (Reg. 20, 19 of the Draft Regulations). As soon as exploitation begins, the contractor has to regularly submit a review of its environmental performances (Reg. 24 of the Draft Regulations). On request of the Commission, it has to ensure an independent assessment of its compliance with its EMMP (Reg. 24 of the Draft Regulations). It is also obliged to submit an annual report on compliance with the contract and the plan of work.

²⁵⁰ Draft Regulations on Exploitation of Mineral Resources in the Area, ISA Doc. ISBA/23/LTC/CRP.3, 8 August 2017, available on the Internet at <https://www.isa.org.im/files/documents/EN/Regs/DraftExpl/ISBA23-LTC-CRP3-Rev.pdf> (last accessed on 28 February 2019).

²⁵¹ International Seabed Authority (2017): Developing a Regulatory Framework for Mineral Exploitation in the Area – A Discussion Paper on the Development and Drafting of Regulations on Exploitation for Mineral Resources in the Area (environmental Matters). Kingston: International Seabed Authority, at 12 and 14-15.

²⁵² International Seabed Authority’s (ISA) Draft Regulations on Exploitation of Mineral Resources in the Area, Submission by Germany, 8 August 2017, <https://www.isa.org.im/files/documents/EN/Regs/2017/MS/Germany.pdf> (last accessed on 28 February 2019) at 4.

²⁵³ International Seabed Authority’s (ISA) Draft Regulations on Exploitation of Mineral Resources in the Area, Submission by Germany, 8 August 2017, <https://www.isa.org.im/files/documents/EN/Regs/2017/MS/Germany.pdf> (last accessed on 28 February 2019) at 4.

²⁵⁴ International Seabed Authority’s (ISA) Draft Regulations on Exploitation of Mineral Resources in the Area, Submission by Germany, 8 August 2017, <https://www.isa.org.im/files/documents/EN/Regs/2017/MS/Germany.pdf> (last accessed on 28 February 2019) at 4.

²⁵⁵ International Seabed Authority’s (ISA) Draft Regulations on Exploitation of Mineral Resources in the Area, Submission by Germany, 8 August 2017, <https://www.isa.org.im/files/documents/EN/Regs/2017/MS/Germany.pdf> (last accessed on 28 February 2019) at 7.

²⁵⁶ Outcome Document, Workshop “Effective Implementation of Environmentally Responsible Deep Seabed Mining”, 7 November 2017, Number 32.

Social standards: The Draft Regulations also contain more precise requirements concerning social standards. Each applicant for exploitation has to meet national and international health and safety requirements. For instance, the contractor may only use vessels whose flag state implements, inter alia, the following international conventions: International Convention for the Safety of Life at Sea, International Convention for the Prevention of Pollution from Ships, Convention on the International Regulations for Preventing Collisions at Sea (Reg. 34 of the Draft Regulations).

Marine scientific research (MSR): Like other activities, MSR in the Area is subject to part XI of UNCLOS (Art. 256). In other zones, MSR requires the consent of the coastal state. The coastal state is bound to give its consent unless, inter alia, MSR is directly linked to exploitation or exploration of natural resources. It shall be conducted in compliance with environmental rules, including part XII of the Convention (Art. 240 (d)) and arguably helps to reduce adverse environmental effects that are likely to occur during mining activities in the seabed.²⁵⁷

Institutions, reviews and decision-making

Institutions: The UNCLOS does not have the usual institutional structure of modern MEAs with institutionalized regular meetings of the parties and a permanent secretariat. However, the UN Secretary General convenes annual meetings of the parties under a general power in Art. 319 (2)(e) of the UNCLOS. Moreover, the Convention establishes the International Tribunal of the Law of the Sea based in Hamburg (Germany) (Annex VI of the UNCLOS) for dispute settlement, and the Commission on the Limits of the Continental Shelf (Annex II of the UNCLOS) which decides on applications for the extension of the continental shelf beyond 200 nm.²⁵⁸ The Parties elect the members and decide on the budget of these two institutions.

To administer the Area (Part XI and the Implementing Agreement), UNCLOS established the International Seabed Authority (ISA) based in Kingston (Jamaica). It has three principal organs (Assembly, Council, and Secretariat) and two subsidiary organs (the Legal and Technical Commission and the Finance Commission).²⁵⁹ The Council of the ISA controls the implementation of Part XI (Art. 162 (2) (a) of the UNCLOS). With regard to mineral extraction, the Legal and Technical Commission plays an important role as it reviews plans of work, supervises exploration or mining activities and their environmental impact assessments, and formulates applicable rules (Art. 165). The UNCLOS also establishes the Enterprise, the organ which is to conduct mining activities in the Area for the ISA as its “mining arm”,²⁶⁰ as soon as commercial mining is feasible. The ISA is considered to be the “institutional manifestation” of the principle of the common heritage of mankind.²⁶¹ Instead of following financial interests of individual states or private actors, the ISA acts on behalf of all mankind. Its independency from individual states’ interests is supposed to ensure a rational exploration and exploitation that is potentially more efficient than exploration and exploitation led by state interests. Additionally, the ISA issued an evolving Mining Code that contains regulations regarding the prospecting and exploration of polymetallic nodules, sulphides, and cobalt-rich crusts.²⁶² A set of *Draft Regulations on Exploitation of Mineral Resources in the Area* has recently been published.²⁶³

²⁵⁷ Churchill & Lowe (1999) at 400.

²⁵⁸ United Nations (2012) at 9.

²⁵⁹ United Nations (2012) at 8.

²⁶⁰ Churchill & Lowe (1999) at 244.

²⁶¹ Bernie, Bolye, Redgwell (2009) at 94. On the concept of “common heritage of mankind” see Section 2.1.1.4.

²⁶² International Seabed Authority (2017): “The Mining Code”, available on the internet at <https://www.isa.org.jm/mining-code> (last accessed on 28 February 2019).

²⁶³ International Seabed Authority (2017): “Legal Instruments: Ongoing Development of Regulations on Exploitation of Mineral Resources in the Area”, August 2017, available on the internet at <https://www.isa.org.jm/instruments-juridiques/ongoing-development-regulations-exploitation-mineral-resources-area> (last accessed 28 February 2019).

Evaluation and review: In the absence of specific provisions on institutions and review,²⁶⁴ the UN Secretary General reports to the annual Meeting of the Parties on the implementation of UNCLOS, pursuant to a UN General Assembly decision.²⁶⁵

Art. 154 of the UNCLOS requires the Assembly to review the functioning of the regime of the Area every five years. The Review Conference provided for in Art. 155 of the UNCLOS, in which parties would have, *inter alia*, reviewed whether the resource exploration/exploitation in the Area benefitted mankind as a whole was abolished by the Implementing Agreement (Section 4 of the Annex to the Implementing Agreement).

Parties can propose amendments to the UNCLOS and the Implementing Agreement (Art. 312-314 of the UNCLOS and Art. 2(2) of the Implementing Agreement), but the process is difficult: A proposal needs active support by half of the parties just to convene a conference which would have to adopt the amendment. A proposed amendment can also be adopted by written procedure if no party objects within 12 months. There is a special procedure for amendments regarding the Area, which require approval by the Council and the Assembly of the International Seabed Authority (Art. 314). However, the Implementing Agreement and the 1995 Straddling Fish Stocks Agreement can be regarded as *de facto* amendments.²⁶⁶

Reporting: -/-

Compliance procedures, remedies and dispute settlement procedures: UNCLOS provides for several fora for dispute resolution (Art. 287 (1) of the UNCLOS): the International Tribunal for the Law of the Sea, the International Court of Justice, arbitral tribunals (Annex VII of the UNCLOS), and special arbitral tribunals (Annex VIII of the UNCLOS). Disputes arising in relation to the Area can only be resolved by the Seabed Disputes Chamber of the ITLS (Art. 186 *et seq.*)²⁶⁷.

Stakeholder and public involvement: Not only states can apply for exploration and exploitation licences. Research institutions and businesses can also apply for a licence on behalf of states. As described above, sponsoring states bear the responsibility to ensure that any national entity complies with Part XI of the UNCLOS. Up until now, 29 licences have been issued.²⁶⁸

Pursuant to Art. 169 (1) of the UNCLOS, international organisations and NGOs can make arrangements with the Secretary-General, which subsequently enable them to attend meetings of all bodies of the ISA as observers (Art. 169 (2) of the UNCLOS). Non-governmental organisations that active in the field of law of the sea can participate as observers at the Meetings of Parties (rule 18 of the Rules of Procedure for Meetings of States Parties²⁶⁹).

Assessment

Coherence with other international treaties and policies: The UNCLOS was negotiated under the umbrella of the UN, and thus has a close relationship to other bodies of the UN, such as the General Assembly, which arranged the Third UNCTAD and decided upon the annual review of implementation.²⁷⁰

²⁶⁴ Rules of Procedure for Meetings of States Parties of the United Nations Convention on the Law of the Sea, UN Doc. SPLOS/2/Rev.4, 15th Meeting, New York, 16-24 June 2005.

²⁶⁵ UN General Assembly, Law of the Sea, UN Doc. A/RES/49/28, 6 December 1994, at para. 12. See also Tanaka (2012) at 36.

²⁶⁶ Tanaka (2012) at 33.

²⁶⁷ See ITLOS Chambers at <https://www.itlos.org/the-tribunal/chambers/> (last visited 28 February 2019); and Jenisch (2013) at 846.

²⁶⁸ See <https://www.isa.org/jm/deep-seabed-minerals-contractors> (last visited on 28 February 2019).

²⁶⁹ Rules of Procedure for Meetings of States Parties of the United Nations Convention on the Law of the Sea, UN Doc. SPLOS/2/Rev.4, 15th Meeting, New York, 16-24 June 2005.

²⁷⁰ United Nations (2012) at 10.

It is also part of the UN Oceans & Law of the Sea,²⁷¹ an inter-agency mechanism that facilitates cooperation between the ISA and other UN organisations.²⁷² UNCLOS is also important for the achievement of the 14th and 7th Sustainable Development Goal, the conservation and sustainable use of the oceans, seas and marine resources.²⁷³ Due to the allocation of sovereign rights, UNCLOS also sets the framework for achieving clean energy according to the 7th SDG.²⁷⁴

While UNCLOS provides a detailed regime on some issues such as marine delineation, on other issues it provides a framework to be elaborated by other instruments. This is the case, for instance, regarding the dumping of wastes, where the UNCLOS is the framework within which standards developed elsewhere may be prescribed and designed.²⁷⁵ Accordingly, together with the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matters, the 1996 London Protocol sets the international *minimum* standard for all states for the regulation of pollution of the marine environment by dumping, as called by Art.210 (6) of the 1982 UNCLOS.²⁷⁶ The 1995 UN Fish Stocks Agreement is another example.

Art. 22 (2) of the Convention on Biological Diversity (CBD) puts forward that parties shall respect the rights and duties under the UNCLOS when they implement the CBD.

If the UNCLOS and the 1958 Geneva Convention on the Law of the Sea collide, the UNCLOS prevails (Art. 311 (1) of the UNCLOS).

With regard to trade issues, the ISA has to govern the Area in line with the General Agreement on Tariffs and Trade (GATT).

Political weight of the instrument: With its 168 parties in UNCLOS and 150 in the Implementing Agreement, a wide coverage of issues, and its dispute settlement system, the UNCLOS is highly politically influential. Germany, China, the Russian Federation, and Canada are party to both treaties. In 1998, after the Implementing Agreement entered into force, the European Union became party to the UNCLOS, and therefore also consented to be bound by the Implementing Agreement.

The USA is neither party to the UNCLOS nor to the Implementing Agreement.²⁷⁷ However, several articles are considered to be customary international law,²⁷⁸ which applies to the USA unless it permanently objects to it.

Consideration of small and medium-scale companies: Companies are not mentioned in the UNCLOS or the Agreement. Companies engaging in mining activities in the Area will not be small or medium-scale companies.

Effectiveness: The UNCLOS covers the entirety of the world's oceans. Some of its provisions were already or afterwards considered to be customary international law.²⁷⁹ This suggests a high degree of effectiveness. However, as the UNCLOS was negotiated over 30 years ago, it does not address new topics.²⁸⁰ It lacks detail in environmental protection (and other areas) and leaves it specification to the national states. Due to the zoning approach, the adoption and enforcement of environmental laws

²⁷¹ See <http://www.un.org/depts/los/> (last visited on 28 February 2019).

²⁷² International Seabed Authority, UN-Oceans holds 16th Meeting in Kingston, Kingston, 10 April 2017.

²⁷³ For more information on the 14th SDG, see <http://www.un.org/sustainabledevelopment/oceans/>, for the 13th SDG see <http://www.un.org/sustainabledevelopment/climate-change-2/>.

²⁷⁴ See <http://www.un.org/sustainabledevelopment/energy/>.

²⁷⁵ Churchill & Lowe (1999) at 69.

²⁷⁶ Birnie et al. (2009) at 466.

²⁷⁷ Jenisch (2013) at 842; see a list of Contracting Parties at: http://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm (last visited on 28 February 2019).

²⁷⁸ Churchill & Lowe (1999) at 24.

²⁷⁹ Churchill & Lowe (1999) at 24.

²⁸⁰ Bollmann et al (2010) at 205.

mostly lies in the hands of the coastal states.²⁸¹ Consequently, the Convention is effective as general treaty covering all of the oceans, but in order to increase effectiveness in some areas, additional treaties and instruments are necessary.²⁸² An example is the prospective Implementing Agreement for biodiversity beyond national jurisdiction, which is currently discussed.²⁸³ Such an implementing agreement would specify measures to maintain biological diversity in the marine environment and could be more specific than the ecosystem-overarching measures contained in the CBD. Another positive example is the Mining Code by the ISA, which presents the ISA with the possibility to ensure environmental protection in the Area.

In the high seas there are no mineral resources, so that abiotic wastes only play a role concerning waste dumping which is mainly addressed by the London Dumping Convention and Protocol.

In accordance with the principle of common benefit of mankind, Part XI of UNCLOS governing the Area is not a conservation regime. Its purpose is not to preserve the resources but to organise the generation and distribution of revenue from their exploitation. Nevertheless, mining activities in the Area are only allowed, if measures that ensure effective protection for the marine environment are in place (Art. 145). The regulations of the Mining Code issued by the ISA specify the general obligation to protect and preserve the marine environment. The administration of resources by Part XI of the Convention and the Implementing Agreement is highly effective. Although the ISA's own mining institution, the Enterprise, does not exist yet beyond its legal establishment, the administration by the ISA is successful, especially because of its enforcement powers, given that lack of enforcement is a major obstacle to environmental protection. States, including Germany, currently apply for exploration licences at the ISA and are obliged to comply with the regulations of the Mining Code concerning exploration, including its environmental requirements. To improve compliance with these regulations, the ISA issues recommendations.²⁸⁴ Furthermore, the ISA may issue new regulations concerning new topics, which increases the effectiveness of its administration activities. An example is the development of Draft Regulations for Exploitation. As a result, the ISA can manage emerging issues, such as exploitation due to new technology, effectively. The relatively strict regime governing the Area contributes to the observation of a minimum level of environmental and social standards when exploiting the mineral resources, as required by Art. 145 and 146 of the UNCLOS. However, due to lack of knowledge about the ecosystem of the deep-seabed, it will be difficult to determine levels for environmental standards, such as different thresholds for biodiversity aspects.²⁸⁵

In the continental shelf, the effectiveness of environmental protection in the course of mineral extraction depends on the coastal state. While this state needs to comply with the general obligations in Art. 192 et seq., the adoption and enforcement of environmental regulations lies in his hands. Thus, the UNCLOS does not ensure effective environmental protection when mining activities are undertaken, as it leaves the adoption and enforcement of the necessary laws to the coastal state. The situation would be different if there was consensus that Art. 208 in conjunction with 209 means that the ISA standards apply in the continental shelf as well.

Political opportunities and good practice examples:

As the Mining Code evolves according to the prospected activities in the Area, parties have an ongoing opportunity to strengthen the respective regulations and recommendations issued by the ISA. One option could be to further embed the precautionary principle. As a current member of the Council, Ger-

²⁸¹ See also Sanden (2015) at 38.

²⁸² Bollmann et al (2010) at 205.

²⁸³ https://www.un.org/Depts/los/biodiversityworkinggroup/webpage_legal_and_policy.pdf.

²⁸⁴ See <https://www.isa.org.im/mining-code>.

²⁸⁵ Ginzky & Damian (2017) at 325.

many could strive for such initiatives. It could support the inclusion of material requirements for environmental standards, such as the requirement that each species living in a future mining field has to occur somewhere else before mining can begin.²⁸⁶

Strategic environmental impact assessments should be an obligatory requirement of the Exploitation Regulations when it enters into force.²⁸⁷ The political will for responsible mining in the deep seabed exists.²⁸⁸ Germany should support the adoption of Exploitation Regulations with stringent environmental and social standards. An independent Committee to review environmental-related matters could be supported by Germany to ensure a balanced representation of interests. Germany should continue to support a wide notion of “interested person(s)” in order to enable a wide public, especially environmental organisations, to express their opinion.²⁸⁹

If a dispute resolution panel was established in addition to (and in line with) the ITLOS Seabed Disputes Chamber, Germany could suggest that environmental organisations should be able to bring matters before the panel as well.

Similarly, Germany’s support to include the obligation to provide an open access to environmental information in the Exploitation Regulations should continue.²⁹⁰

The Polluter Pays Principle could be incorporated in future regulations of the Mining Code, as it is not yet included in the Mining Code.²⁹¹

With regard to the Area, the UNCLOS and the Implementing Agreements include elements of good practice:

- ▶ The strict regulation of access to exploitation links exploitations to environmental standards
- ▶ The enforcement powers of the ISA as an independent institution and the procedural requirements ensure compliance with environmental and social standards

²⁸⁶ Ginzky & Damian (2017) at 330.

²⁸⁷ Ginzky & Damian (2017) at 324.

²⁸⁸ Ginzky & Damian (2017) at 325.

²⁸⁹ In its Submission regarding the Draft Regulations Germany asked for a wider definition of interested persons so that the general public is able to participate, International Seabed Authority’s (ISA) Draft Regulations on Exploitation of Mineral Resources in the Area, Submission by Germany, 8 August 2017, p. 10, available at <https://www.isa.org.jm/files/documents/EN/Regs/2017/MS/Germany.pdf> (last accessed on 28 February 2019).

²⁹⁰ See German Submission regarding the Draft Regulations, p. 8.

²⁹¹ Ginzky & Damian (2017) at 327.

2.1.2.3 Minamata Convention

Table 4: Minamata Convention (adoption: 10 October 2013; in force: 16 August 2017)

Key aspects	Summary
Form and legal status	Binding, not yet in force
Objectives	Protecting human health and environment from mercury
Parties	104, incl. the EU and Germany
Territorial scope	Global
Resources covered	Mercury; gold /coal/lead/copper/zinc (indirect)
Stage of the value chain	Mining, export/import, manufacturing, recycling, waste disposal
Steering tool	Information, regulation, planning
Assessment	++

Summary

The Minamata Convention aims at phasing out mercury production completely and has the potential to reduce some environmental and health impacts associated with other resource extraction processes, insofar as mercury emissions and releases are concerned. Whether the Convention will be effective in reducing such impacts of resource extraction will depend to a large extent on implementing decisions and guidelines to be developed, given that the Convention text does not prescribe quantitative emission or release limits. The most important mercury emitters²⁹² have supported and already ratified the Convention, which indicates that at least these important players will actually implement it. The Convention's approach to regulating trade in mercury means that non-parties will also be affected.

Overview

Form and legal status: The Minamata Convention²⁹³ is an international treaty that was adopted on 10 October 2013. The Convention entered into force on 16 August 2017. At that date it had 128 signatories and 74 parties, including important players (China and US).²⁹⁴

Objectives: The objective of the Convention is “to protect the human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds” (Article 1).

Territorial scope: The Convention is open to all states and regional economic integration organisations. It obliges its parties to regulate mercury on their respective territories. The Convention is one of the few legal instruments that purposefully and explicitly address non-parties by regulating trade with them: A party may only export mercury to another state, if the importing state – be it a party or not – adheres to the standards of the Minamata Convention, with respect to health and environmental protection and uses of mercury. Similarly, a party may only import mercury from a non-party, if that state certifies that the source is allowed under the Convention. The effect of the Convention could thus extend beyond the territory of parties.

²⁹² China and the US have ratified, but not India. See for further information on the status of ratification: <http://www.mercuryconvention.org/Countries/tabid/3428/Default.aspx> (last accessed on 28 February 2019).

²⁹³ Minamata Convention on Mercury. Kumamoto, 10 October 2013, available at: <http://www.mercuryconvention.org/> (last accessed on 28 February 2019).

²⁹⁴ As of 16 August 2017, 74 countries had ratified, including the United States and China. As of 28 February 2019, 104 countries have ratified the Minamata Convention. See for the status of ratification <http://www.mercuryconvention.org/Countries/tabid/3428/Default.aspx>.

Type of steering tool: The Minamata Convention uses information tools (reporting on mercury stocks, mercury emission inventories), planning tools (national action plan on artisanal and small-scale gold mining, and on emissions and releases) and regulatory instruments (export/import restrictions, mining phase-out, phase-out of mercury-added products and manufacturing, use of BAT/BEP standards for sources of emissions/releases).

Links to extraction, processing and transport of resources

Resources covered: The Minamata Convention targets emissions (into the air) and releases (into water and land) from mercury and mercury compounds. It thus covers mercury extraction, processing and transport as well as other resource extraction processes: Artisanal and small-scale gold mining (ASGM) gold mining, where mercury is used to separate gold from ore, and activities that cause mercury emissions, such as the primary production of industrial gold, lead, copper and zinc. The primary production of ferrous metals, oil and natural gas, which also cause mercury emissions,²⁹⁵ are not directly addressed but can still fall under the Convention.

Environmental and social impacts covered: The Minamata Convention's main objective is to address the environmental and health impacts of mercury, including mining, interim storage and trade. Since one core obligation is to stop new and phase out existing mercury mining (Article 3), it covers all impacts in this respect. Contaminated sites, however, are addressed in weak prescriptive terms of assessment and management (Article 12). Mercury emissions from point sources into the atmosphere are covered for smelting and roasting processes used in the production of non-ferrous metals. Mercury releases to land or water from other point sources are also addressed, although the relevant point source categories are left to be identified by parties (Article 9). Indirectly, the Convention also addresses environmental and health impacts of ASGM and other mining processes, insofar as mercury is used or emitted in the raw material processing. The Convention also contains specific provisions on health measures for vulnerable population and workers, as well as on education around the effects of mercury exposure.

Steps of the value chain covered: The Minamata Convention addresses each step of the lifecycle, from mercury mining, import and export, manufacturing that uses mercury or mercury compounds, to interim storage, recycling and waste disposal.

Content

Relevant obligations for parties: The Convention regulates the entire lifecycle of mercury, and targets emissions/releases from both intentional uses and where they occur as an unintentional by-product. However, many provisions score low on precision and prescriptiveness or provide for exemptions.

Most relevant for **regulating mercury extraction** are the restrictions on mercury mining (Article 3). New mercury mining is completely banned, and already existing mining activities are prohibited after 15 years after entry into force of the Convention for a party. In the meantime, parties are required to control releases of mercury from these mines into land and water, e.g. by setting release limits (Article 9). They shall also take measures to ensure that the interim storage of mercury, e.g. on the way to export, is undertaken in an environmentally sound manner (Article 10).

The Convention also addresses the use of mercury in or mercury emissions and releases from **small-scale gold mining**. The Convention's obligations on ASGM (Article 7) aim at reducing the use of gold mining techniques that use mercury – currently accounting for around 12-15% of global gold production.²⁹⁶ All parties with ASGM activities are required to “take steps to reduce and where feasible eliminate” the use of mercury in, and emissions and releases from, this sector. This covers both formal and

²⁹⁵ UNEP (2013).

²⁹⁶ According to the Artisanal Gold Council (2015), p. 4.

informal, legal and illegal activities. Parties must notify the Secretariat if their ASGM activities are “more than insignificant” (this is upon the party to define), and if so, are required to develop a national action plan (NAP). The NAP needs to set out national reduction targets and timelines for the worst practices (whole ore amalgamation, open burning of amalgam, burning of amalgam in residential areas, cyanide leaching in mercury-containing sediments, ores or tailings), and comprehensive implementation strategies addressing the promotion of mercury-free methods, formalisation of ASGM activities, public health, information to miners, stakeholder engagement, and protection of children and pregnant women from mercury exposure. The Convention grants a lot of leeway to Parties with respect to ASGM regulation, e.g. in leaving the term “more than insignificant” undefined and not setting quantitative limits. This reflects the general difficulty of regulating ASGM, which, on the one hand, poses major environmental risks, and, on the other hand, presents an important economic resource for minors with few livelihood alternatives.²⁹⁷

For **large-scale gold**, as well as **lead, zinc and copper smelting**, Parties are required to control “and where feasible, reduce” mercury emissions into the air (Article 8). For this purpose, they shall establish inventories, and require the use of best available techniques (BAT) and best environmental practices (BEP) for new emission sources, at the latest after five years. They shall also take measures to reduce emissions from existing sources not later than 10 years, e.g. by setting quantified goals or requiring BAT/BEP practices. The COP is tasked to develop and regularly update guidance on BAT and BEP. A technical expert group established under the INC has already completed a report as the basis for this guidance.²⁹⁸

Article 9 covers mercury releases to land and water not addressed elsewhere in the Convention. For such releases, parties need to establish within a maximum of 5 years inventories and take measures such as setting release limits or requiring use of BAT/BEP. However, the drafting and the scope of what is “not addressed in other provisions of the Convention” is not entirely clear. The relevant release sources could potentially include **extraction and refining of oil, extraction and processing of natural gas, primary ferrous metal production**, and releases from still operating mercury mines. Parties must define, within three years, the relevant point source categories, but this process will probably be influenced by the COP’s guidance on inventory preparation. It can be expected that the COP will draw on the work of UNEP which has prepared a toolkit for identifying mercury releases, listing also oil and natural gas.²⁹⁹

In the cross-cutting but normatively weak provision of Article 16, the Minamata Convention “encourages” parties to promote health strategies to protect vulnerable population, to inform workers on the occupational exposure to mercury, and to develop health-care services for affected population. They are also required to promote **public information**, awareness and education. For this purpose parties should consider the establishment of pollutant release and transfer registers, where not yet existent.

Institutions, reviews and decision-making

Institutions: The Minamata Convention has the usual institutional structure and follows the approach of modern MEAs of establishing a Conference of the Parties (COP) that is to review and evaluate the

²⁹⁷ S Siegel and M M Veiga (2010): “The myth of alternative livelihoods: artisanal mining, gold and poverty” 41(3/4) *International Journal of Environment and Pollution* 272; David Lennett and Richard Gutierrez (2014): *Minamata Convention On Mercury Ratification and Implementation Manual* at 35 ff.

²⁹⁸ See UNEP(DTIE)/Hg/INC.7/6/Add.1, Report of the group of technical experts on the development of guidance required under article 8 of the Convention, 21 October 2015, <http://www.mercuryconvention.org/Negotiations/INC7/tabid/4506/Default.aspx>.

²⁹⁹ See UNEP (2015): *Toolkit for Identification and Quantification of Mercury Releases*, <http://web.unep.org/globalmercurypartnership/toolkit-identification-and-quantification-mercury-releases>.

treaty's implementation. In the interim period between adoption and entry-into force, the intergovernmental negotiating committee (INC) is preparing the implementation of the Convention.³⁰⁰

Reporting: Parties are required to report on the implementation of the Convention. The reports have to include information on stocks of mercury and mercury compounds, on the phase-out of mining and implementation of trade restrictions, on manufacturing facilities using mercury or mercury compounds, and on whether ASGM is occurring on its territory. The reports also have to provide inventories of emissions and releases. The procedures for reporting, and specifically for the establishment of inventories are still to be decided. The COP is set to review the reports, and to use them as basis for the effectiveness evaluation. In addition to these reports, parties may also develop implementation plans, but this is not obligation.

Evaluation and review: The Convention can be considered a “living treaty”: the COP is obliged to regularly review Annexes A and B, the guidance on BAT and BEP. The COP also regularly evaluates the overall effectiveness of the Convention, starting six years after its entry into force. For this purpose, the COP is set to establish a system to collect comparable monitoring data on mercury and mercury compounds.

Compliance procedures, remedies and dispute settlement procedures: An implementation and compliance committee promotes implementation of, and compliance with all obligations under the Convention, covering both individual and systemic issues. It may make recommendations to the COP but it cannot take measures itself. The Convention also contains a provision on dispute settlement, suggesting using either the ICJ or an arbitration or conciliation procedure, set out in detail in the Annex E.

Stakeholder and public involvement: The Minamata Convention sets emphasis on making publicly available information on mercury, its health and environmental impacts, and alternatives. The treaty also provides for the engagement of stakeholders. If parties have notified ASGM activities, they are required to prepare national action plans that include strategies for the involvement of stakeholders. Parties are also set to collaborate with NGOs and vulnerable population in providing education, training and public awareness on mercury. The COP also provides guidance on managing contaminated sites, which “may include methods and guidance for...engaging the public”.

Assessment

Coherence with other international treaties and policies: A range of international treaties regulate hazardous substances, including mercury. The 1989 Basel Convention on the Transboundary Movement of Hazardous Waste³⁰¹ regulates, inter alia, the transport of mercury waste. The 1998 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade³⁰² promotes cooperation in trade of certain chemicals, including mercury compounds, by facilitating information exchange. The 1998 Heavy Metals Protocol, placed under the 1979 Convention on Long-Range Transboundary Air Pollution³⁰³ regulates mercury emissions into air from industrial sources, combustion processes and waste incineration. These treaties all address only certain aspects of the lifecycle of different hazardous substances. This had resulted in somewhat of a piecemeal network of regulation of mercury -which was one of the reasons for negotiating a comprehensive instrument. The Minamata Convention in turn takes a lifecycle approach. As a consequence, in

³⁰⁰ See <http://www.mercuryconvention.org/Negotiations/INC7/tabid/4506/Default.aspx>.

³⁰¹ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 22 March 1989, in force 5 May 1992, 28 *International Legal Materials* (1989), 649.

³⁰² Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 10 September 1998, in force 24 February 2004, 38 *International Legal Materials* (1999), 1.

³⁰³ Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals, 24 June 1998, in force 29 December 2003, 2237 *United Nations Treaties Series* (2005), 4. Note that the LRTAP Convention was originally limited to Europe and North America but the Protocol allows accession of other countries from Eastern Europe, South-Eastern Europe, the Caucasus and Central Asia since 2012.

some aspects the Minamata Convention duplicates existing international regulation, e.g. on waste, chloralkali production and stationary sources of mercury air emissions.³⁰⁴ On other aspects, e.g. mercury mining or releases to water and land, it strengthens or complements existing law. Parties to the hazardous substances treaties (Basel, Rotterdam, and Stockholm) recognised the partial overlaps between these and initiated a Synergies process in 2008 to better coordinate the work of the respective COPs. In 2013, they signalled interest in also cooperating with the Minamata COP.³⁰⁵ The Convention itself already refers in its article on waste to the Basel Convention and obliges the COP to cooperate closely with the bodies of the Basel Convention. With respect to health related issues, the Convention also calls on the COP to cooperate with the International Labour Organisation and the World Health Organisation.

Political weight of the instrument: The Minamata Convention fills a gap in the piecemeal regulation provided by other MEAs in providing a lifecycle approach to mercury, in particular by addressing the resource extraction and the commitment to phase out mining. Support by the US and China, both major political player at the international level generally and regarding mercury in particular, for addressing the mercury problem was major political trigger for negotiations.³⁰⁶ The relatively fast ratification by the US, China and the EU indicate high political support. On the other hand, acceptance by these players probably came at the cost of soft obligations in terms of precision and prescriptiveness. Phase-out deadlines are long, and many exemptions are available to parties.³⁰⁷ Particularly for the most challenging sources, namely ASGM, and point sources (e.g. production of non-ferrous metals) the Convention does not provide numerical targets but only soft action-oriented obligations.³⁰⁸

Consideration of small and medium-scale companies: The Minamata Convention dedicates a separate article to the regulation of ASGM activities, which is noteworthy (Art. 7). Instead of setting strict limits, it requires parties with significant ASGM activities to develop NAPs. While aiming to reduce worst practices, the plans also put much emphasis on providing information to workers, facilitating formalisation, and involving stakeholders. This approach attempts to address the challenge of reducing mercury use in ASGM without destroying livelihoods. It also appears to be a compromise between addressing the issue and avoiding what states might perceive as over-intrusiveness.

Effectiveness: No data is available given that the Convention has just entered into force. Whether the Convention will effectively reduce the environmental and social impacts of resource extraction will depend to a large extent on the stringency of BAT/BEP guidelines that are still to be developed by the COP for the existing mining activities. However, the cut-off date for ceasing all mining 15 years after entry into force is clear and strict and would be, if complied with, quite effective.

Political opportunities and good practice examples:

- ▶ COP will establish guidance for BAT/BEP for sources of emissions and releases.
- ▶ COP will establish guidance on inventories of mercury releases (could include oil, natural gas, ferrous metals).
- ▶ COP will establish guidance on interim storage of mercury
- ▶ COP will provide guidance to GEF on funding
- ▶ Parties are invited to exchange information on BAT/BEP, alternatives etc.

³⁰⁴ Bassett (2016) at 25 f.

³⁰⁵ Omnibus decision on enhancing cooperation and coordination among the Basel, Rotterdam and Stockholm conventions: Adopted by the Conference of the Parties to the Basel Convention as decision BC.Ex-2/1, by the Conference of the Parties to the Rotterdam Convention as decision RC.Ex-2/1 and by the Conference of the Parties to the Stockholm Convention as decision SC.Ex-2/1.

³⁰⁶ Selin (2014) at 1.

³⁰⁷ Selin (2014) at 16.

³⁰⁸ Bassett (2016) at 70.

2.1.2.4 Amazon Cooperation Treaty

Table 5: Amazon Cooperation Treaty (adoption: 3 July 1978; in force: 2 August 1980)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Preservation of the environment, conservation and rational utilization of natural resources
Parties	8
Territorial scope	Regional
Resources covered	All resources in the Amazonian territories and in the territory of a Party which is considered closely connected with the Amazon Basin
Stage of the value chain	All stages
Steering tool	Information exchange
Assessment	+

Summary

The 1978 Amazon Cooperation Treaty aims to facilitate joint actions and efforts to promote “harmonious development” in the Amazon region. All countries located in the Amazon River Basin are parties to the Treaty. In the more than 30 years the Treaty has been in force the parties have used it for exchange and cooperation – especially through the Amazon Cooperation Treaty Organization that was established in 2003. While the Treaty’s objectives include preservation of the environment as well as “conservation and rational utilization of natural resources”, it only establishes mechanisms and obligations for information exchange and cooperation. The parties have repeatedly referred to their sovereignty over natural resources and have proven reluctant to commit to any obligations with regard to resource exploitation. However, under the Amazon Cooperation Treaty Organization, an Amazonian Strategic Cooperation Agenda has been developed and approved in 2010 that covers discussions on the establishment of control policies for mining activities that contaminate water as one medium term activity to improve water resource management. Also, a Strategic Action Programme has been adopted in 2018 and aims for an integrated management of water resources in the Amazon River Basin.

Overview

Form and legal status: The Amazon Cooperation Treaty³⁰⁹ is a regional treaty that was adopted on 3 July 1978. The Treaty entered into force on 2 August 1980. It has 8 parties that share the Amazon River Basin: Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela.³¹⁰ On 14 December 1998, the parties adopted the Protocol of Amendment of the Amazon Cooperation Treaty³¹¹ that entered into force on 2 August 2002 and created the Amazon Cooperation Treaty Organization (ACTO).

Objectives: The Amazon Cooperation Treaty was not intended as a framework for managing the Amazon basin. The aim of the Treaty is “to undertake joint actions and efforts to promote the harmonious development” of the parties’ Amazonian territories “in such a way that these joint actions produce eq-

³⁰⁹ Treaty for Amazonian Cooperation, Brasilia, 3 July 1978, accessible at: <http://www.otca-oficial.info/library/details/149> (last accessed on 28 February 2019).

³¹⁰ See for the Parties: http://www.otca-oficial.info/about/member_countries (last accessed on 28 February 2019).

³¹¹ Protocol of Amendment of the Amazon Cooperation Treaty, Caracas, 14 December 1998, in force 2 August 2002, accessible at: <http://www.otca-oficial.info/library/details/149> (last accessed on 28 February 2019).

uitable and mutually beneficial results and achieve also preservation of the environment, and the conservation and rational utilization of the natural resources of those territories” (Article 1). Water management and conservation is one significant aspect of the Amazon Cooperation Treaty.³¹²

Territorial scope: The Amazon Cooperation Treaty is regional in scope. With Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Venezuela all countries sharing the Amazon River Basin are parties to the Treaty. In addition Suriname is party to the Treaty as it has territory considered to be closely connected with the Amazon River Basin by virtue of its geographical, ecological and economic characteristics. The Amazon Cooperation Treaty does not cover the entire territory of the parties, but only the territory in the Amazon River Basin and the territory connected to the Amazon River Basin. While the Treaty uses the term Amazon region, it does not define the term and the parties so far have not reached consensus on a definition.³¹³

Type of steering tool: The Amazon Cooperation Treaty does not establish a management system for shared resources. It only uses information tools (scientific research, information exchange, reporting) and provides a basis for the preparation of additional tools in the form of agreements, understandings, or legal instruments.

Links to extraction, processing and transport of resources

Resources covered: The Amazon Cooperation Treaty aims to promote the conservation and rational utilization of the natural resources in the Amazonian territories (Article I). Therefore, there is no restriction in regard to the type of resources within the Treaty’s geographical scope. Resources for extraction such as minerals as well as resources affected by extraction such as water fall within the scope of the Treaty.

Environmental and social impacts covered: The Amazon Cooperation Treaty has a broad scope as it aims to achieve the preservation of the environment and the conservation and rational utilization of the natural resources of the Amazonian territories (Article I). It also specifically mentions the coordination of health services in the Amazonian territories, measures to improve sanitary conditions in the region and methods for preventing and combating epidemics (Article III). The strategic objectives that have been developed by the parties included in the Amazonian Strategic Cooperation Agenda of 2010³¹⁴ indicate their understanding of the environmental and social impacts that can be addressed under the Treaty: (1) forests, biodiversity, water resources; (2) protection of ancestral and current knowledge and wisdom; and (3) life quality of inhabitants with emphasis on vulnerable populations, indigenous people and other tribal communities. Hence, various environmental and social impacts of mining could be addressed by the Amazon Cooperation Treaty Organization. Under the Amazonian Strategic Cooperation Agenda of 2010, the parties agreed, among others, to “promote shared discussion spaces to establish control policies for mining activities that contaminate the water”³¹⁵.

Steps of the value chain covered: The Amazon Cooperation Treaty does not address specific parts of the value chain of a resource individually. It covers all activities with an impact on the environment or on natural resources.

³¹² Garcia and Calasans (2015) at 239.

³¹³ Garcia (2011) at 88.

³¹⁴ Amazonian Strategic Cooperation Agenda, Lima, 29 November 2010, p. 23 et seq.

³¹⁵ Amazonian Strategic Cooperation Agenda, Lima, 29 November 2010, p. 25.

Content

Relevant obligations for parties: The mechanisms established to fulfil the objectives of the Amazon Cooperation Treaty involve no more than the generation of knowledge and the exchange of information.³¹⁶ The Treaty does not establish legally binding obligations related to environmental protection and resource conservation.³¹⁷ Instead it emphasises the sovereignty of the parties regarding the natural resources in their territories. As a framework agreement, the Amazon Cooperation Treaty contains general obligations, which should be gradually made more concrete through norms and regulations adopted in the regular meetings of its institutional bodies.³¹⁸

The obligation to establish a regular system for exchange of information relates only to conservationist measures adopted by the parties in their respective territories (Article VII). The Amazon Cooperation Treaty also requires the establishment of a close cooperation in the fields of scientific and technological research for the purpose of the creating more suitable conditions for the acceleration of the economic and social development of the region (Article IX).

Institutions, reviews and decision-making

Institutions: The Amazon Cooperation Treaty itself already established several bodies: (1) a Meeting of the Ministers of Foreign Affairs that is similar to the Conference of the parties in modern MEAs and convenes at the initiative of any party, if four parties support the meeting; (2) the Amazonian Cooperation Council comprising top level diplomatic representatives that meets once a year to carry out decisions taken by the Meeting of the Ministers of Foreign Affairs; (3) the Permanent National Commissions in each territory to ensure national implementation; and (4) Special Committees that can be set up by the parties.

To improve and strengthen the cooperation process under the Amazon Cooperation Treaty, the parties adopted the Protocol of Amendment in 1998. It created the Amazon Cooperation Treaty Organization (ACTO) with corporate body status and empowered ACTO to enter into agreements with parties, non-parties and international organizations. In addition, the Protocol of Amendment set up a Permanent Secretariat to implement the objectives established in the Treaty in conformity with the decisions taken at the meetings of Ministers of Foreign Affairs and the Amazonian Cooperation Council. After the Amendment Protocol entered into force on 2 August 2002 ACTO and the Permanent Secretariat became operational.

Reporting: Parties are not required to report on the implementation of the Treaty. However, there is an obligation to present annual reports on existing or future conservation measures in Article VII b.

Evaluation and review: The Treaty does not establish a mechanism for regular evaluation and review.

Compliance procedures, remedies and dispute settlement procedures: There are no compliance procedures. The Amazon Cooperation Treaty also lacks specific provisions on dispute resolution. Instead, it operates by consensus for all significant decisions and emphasizes the sovereignty of each country.³¹⁹

Stakeholder and public involvement: The Amazon Cooperation Treaty itself neither recognizes the importance of public participation nor does it establish specific mechanisms in this respect. However, the significance of information sharing and incorporation of the civil society has been reiterated in several

³¹⁶ Garcias (2011) at 95 et seq.

³¹⁷ Tigre (2017) at 393.

³¹⁸ Garcia and Calasans (2015) at 239.

³¹⁹ UNDP (2011) at 14.

documents developed under the Amazon Cooperation Treaty such as the Declaration of Manaus of 2004³²⁰ and the Amazonian Strategic Cooperation Agenda of 2010³²¹.

Assessment

Coherence with other international treaties and policies: The Amazon Cooperation Treaty does not limit the parties' right to conclude bilateral or multilateral on specific or generic topics provided they do not contravene the objectives of the Treaty (Article XVIII) and has no effect on other international treaties in force between the parties (Article XIV).

The Amazon Cooperation Treaty only sets up mechanisms to generate knowledge and exchange information. It defines "preservation of environment" and "conservation and rational utilization" as objectives, but does not establish related obligations.³²² The Treaty is consistent with the principles and obligations that have developed under customary international law for transboundary watercourses. Only Venezuela is party to the 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses³²³ that is widely viewed as a codification of customary international law.³²⁴

The Amazon Cooperation Treaty is broad in scope and therefore has overlaps with other international environmental treaties such as the 1992 Convention on Biological Diversity³²⁵ and the 1971 Ramsar Convention on Wetlands³²⁶.

Political weight of the instrument: Most transboundary watersheds around the world are not under any governance regime in form of a treaty or an organization. Considering the size of the Amazon basin and the significant amount of water resources, the existence of the Amazon Cooperation Treaty Organization is a significant achievement.³²⁷ It has gained influence by implementing projects with parties, non-parties and international organizations and has become the most important contact for activities in the Amazon River Basin.³²⁸

The Amazon Cooperation Treaty is the only legal instrument adopted by all Amazon countries for the protection of the Amazonian natural environment. Since 1978, Amazon countries have repeatedly committed to regional cooperation and environmental protection through the Amazon Cooperation Treaty and the Amazon Cooperation Treaty Organization. However, every affirmation of the commitment to promote regional conservation in the Amazon region was combined with a reminder of each party's sovereignty over natural resources, making sure there is no actual obligation to reduce the exploitation of natural resources.³²⁹ Hence, not obligations for environmental protection or resource conservation could be agreed on that would further the objectives of the Treaty.

Consideration of small and medium-scale companies: Companies are not mentioned in the Amazon Cooperation Treaty. However, the Treaty aims to achieve overall development in the Amazonian territories and emphasises the necessity to maintain a balance between economic growth and conservation of the environment.

³²⁰ Declaration of Manaus, 14 September 2004, available at: <http://www.otca-oficial.info/library/details/149> (last accessed on 28 February 2019).

³²¹ Amazonian Strategic Cooperation Agenda, Lima, 29 November 2010.

³²² Newton (2013) at 175 et seq.

³²³ Convention on the Law of the Non-navigational Uses of International Watercourses, New York, 21 May 1997, in force 17 August 2014, 36 *International Legal Materials* (1997), 700.

³²⁴ Loures et al. (2013) at 52.

³²⁵ Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, in force 29 December 1993, 31 *International Legal Materials* (1992), 818.

³²⁶ Ramsar Convention on Wetlands of International Importance, Ramsar, 2 February 1971, in force 21 December 1975, 11 *International Legal Materials*, 969.

³²⁷ Newton (2013) at 174.

³²⁸ UNDP (2011) at 9 et seq.

³²⁹ Tigre (2017) at 393.

Effectiveness: The Amazon River Basin is subject to increasing human pressure associated with, among others, large and small scale mining.³³⁰ However, the Amazon Cooperation Treaty does not establish any legally binding obligations for the management and protection of water resources or the conservation of environment. Its negotiation was influenced by the reluctance to give up sovereignty over natural resources. Hence, the Amazon Cooperation Treaty establishes only few obligations and focuses on procedures and platforms for cooperation instead that can facilitate progress towards its objectives.³³¹

Under the Amazon Cooperation Treaty, the parties have adopted several declarations and resolutions. They also adopted the Amazonian Strategic Cooperation Agenda in 2010 that lists short, medium and long term activities for sustainable forest management, integrated water resource management, and protected area management.³³² In 2018, ACTO published the Strategic Action Program; it aims for an integrated management of water resources in the Amazon River Basin.³³³ However, due to a lack of frequency of meetings, the effectiveness of the Amazon Cooperation Treaty has been limited and its progress has been small.³³⁴

Without an obligation to protect the environment and a complaint mechanism for violations, states remain unaccountable.³³⁵ But at least, a platform for cooperation among the states sharing the Amazon River Basin has been created that facilitated the development of agreed action plans and projects.

Political opportunities and good practice examples:

- ▶ Multilateral forum for the integration and sustainable development of countries sharing one water river basin
- ▶ Amazonian Strategic Cooperation Agenda as a tool to facilitate discussions about instruments to reduce the negative impacts of mining activities on water
- ▶ Revision and update of the Amazonian Strategic Cooperation Agenda in 2018 to align it, among others, with the Sustainable Development Goals and the Paris Agreement on Climate Change
- ▶ The Strategic Action Program of 2018 aims at an integrated management of water resources in the Amazon River Basin and lists activities to address water pollution, deforestation, loss of biodiversity, erosion and land-use change. Implementation of the Strategic Action Program could cover mining.
- ▶ No opportunity to adopt legal standards for the management of natural resources due to the unwillingness of the parties to limit their sovereignty

³³⁰ Newton (2013) at 171.

³³¹ Garcia (2011) at 96.

³³² Amazonian Strategic Cooperation Agenda, Lima, 29 November 2010.

³³³ Strategic Action Program, Brasilia 2018, available at: <http://www.otca-oficial.info/assets/documentos/20181022/d2726864fa8c9bf232eeb8fbc7ca7e11.pdf> (last accessed on 28 February 2019).

³³⁴ Gomes and Piqueras (2016) at 6.

³³⁵ Tigre (2017) at 394.

2.1.2.5 Convention on the Protection and Use of Transboundary Watercourses and International Lakes

Table 6: Convention on the Protection and Use of Transboundary Watercourses and International Lakes (adoption: 17 March 1992; in force: 6 October 1996)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Promotion of international cooperation on prevention, control and reduction of transboundary water pollution and sustainable use of transboundary waters
Parties	41
Territorial scope	Originally restricted to countries within the UNECE region; since 2016 open to accession by all UN Member States
Resources covered	All resources
Stage of the value chain	All stages
Steering tool	Various instruments for prevention, reduction and control of pollution, and reasonable and equitable use of resources; cooperation between Riparian Parties through agreements and joint bodies
Assessment	+

Summary

The UNECE Water Convention aims at promoting international cooperation for the prevention, control and reduction of transboundary water pollution and sustainable use of transboundary waters. To this end, the parties are required to take measures such as prior licensing for waste-water discharges to avoid harm in the territory of other parties and to ensure transboundary waters are used in a reasonable and equitable way. Riparian parties have to enter into agreements and establish joint bodies in case they have not already done so. The UNECE Water Convention can therefore be relevant for the extraction, transport and processing of resources, but does not single out specific resources or activities.

Having been of regional scope in the beginning, the UNECE Water Convention has been open for accession from all countries since 2016. Together with the UN Watercourse Convention, it has contributed to the international water law process. The two Conventions are compatible and also largely complementary. It remains to be seen whether countries around the world will ratify both Conventions. In requiring riparian parties to cooperate, the UNECE Water Convention allows the use of existing bilateral and multilateral agreements and requires their adjustment to the principles of the Convention.

Overview

Form and legal status: The UNECE Water Convention³³⁶ was adopted on 17 March 1992 and entered into force on 6 October 1996. It has 41 Parties from Europe and Central Asia, out of the 56 countries of the UNECE region. So far no non-UNECE country has ratified the Convention after it was opened in 2016.

Objectives: The Convention aims to promote international cooperation for the prevention, control and reduction of transboundary water pollution and sustainable use of transboundary waters.

³³⁶ Convention on the Protection of Transboundary Watercourses and International Lakes, Helsinki, 17 March 1992, in force 6 October 1996, 1936 United Nations, Treaty Series (1996), 269.

Territorial scope: Originally, the UNECE Water Convention was only open to countries and regional integration organizations that are members to the United Nations Economic Commission for Europe (UNECE) or have a consultative status. However, in 2003 the Meeting of the Parties adopted an amendment that opened the UNECE Water Convention to accession by all Member States to the United Nations.³³⁷ This amendment entered into force in 2013 and became operational in 2016.³³⁸

Geographically, the requirements of the Convention relate to transboundary waters, which are defined as "any surface or ground waters which mark, cross or are located on boundaries between two or more States" (Article 1). As it is based on the concept of the catchment area, its scope extends beyond the mere water body and includes other elements of the environment, such as air, land, fauna and flora to the extent that they interact with the relevant transboundary watercourse or international lake.³³⁹ Sea waters are excluded from the scope of the UNECE Water Convention.

Type of steering tool: The UNECE Water Convention applies a two-tiered approach comprising general obligations that apply to all Parties to the Convention and specific obligations that must be implemented through further agreements among the Riparian Parties sharing the same transboundary waters.³⁴⁰ The steering tools of the Convention can be associated to the principles of no harm, reasonable and equitable use of resources and cooperation.

Links to extraction, processing and transport of resources

Resources covered: The UNECE Water Convention does not address any specific resources. However, its scope covers all resources where their extraction, processing, transport, storage or further processing has impacts on the water quality of transboundary waters or requires the use of transboundary waters.

Environmental and social impacts covered: The Convention aims to prevent, control and reduce transboundary impacts through pollution of transboundary waters. These are defined as "any surface or ground waters which mark, cross or are located on boundaries between two or more States" (Article 1). Impacts can include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors. Effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors also qualify as transboundary impacts (Article 1 Nr. 2).

Steps of the value chain covered: The UNECE Water Convention does not single out specific steps of the value chain. However, the different obligations established to ensure good water quality and a reasonable and equitable use of waters may relate to all stages from the extraction, processing, transport to the storage and further processing of resources.

Content

Relevant obligations for parties: The UNECE Water Convention follows a two-tiered approach with general obligations for parties related to the prevention of pollution and the reasonable and equitable use of resources and with specific obligations for riparian parties to cooperate closely in regard to the waters they share.

The general obligations mirror the two substantive norms of equitable and reasonable utilisation and the prevention of significant harm;³⁴¹ they can be relevant for the extraction, processing and transport

³³⁷ Decision III/1, Amendments to Articles 25 and 26 of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Madrid, 28 November 2003, in force 6 February 2013, ECE/MP.WAT/14, p. 2.

³³⁸ <https://www.unece.org/env/water/> (last accessed on 28 February 2019).

³³⁹ UNECE (2015), p. 22.

³⁴⁰ UNECE (2013), p. 9.

³⁴¹ Rieu-Clarke (2017) at 195.

of resources. First, Parties have to take all appropriate measures to prevent, control and reduce water pollution causing or likely to cause transboundary impacts (Article 2.2 (a)). These measures include the application of low- and non-waste technology, the control via prior licensing of waste-water discharges, limits for waste-water discharges based on the best available technology for hazardous substances, environmental impact assessment, sustainable water-resource management, and measures to prevent the pollution of groundwater (Article 3.1). Second, Parties have to take appropriate measures to ensure transboundary waters are used with the aim of ecologically sound and rational water management, conservation of waters and environmental protection (Article 2.2 (b)). The Parties shall take all appropriate measures to ensure transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or are likely to cause transboundary impact (Article 2.2 (c)).

With the second set of obligations that aim to ensure that riparian parties cooperate in regard to the water resources they share, the UNECE Water Convention puts a strong emphasis on the procedural steps of cooperation.³⁴² Riparian parties shall on the basis of equality and reciprocity enter into bilateral or multilateral agreements or other arrangements, or adapt existing ones to eliminate contradictions with the Convention (Article 9.1). The agreement or arrangement has to provide for the establishment of joint bodies that identify pollution sources, elaborate emission limits for waste water and joint water quality objectives, propose measures to maintain and improve the existing water quality, and develop concerted action programmes for the reduction of pollution loads from, among others, industrial sources (Article 9.2). The Riparian Parties, through the joint bodies, have to establish and implement of joint monitoring programmes (Article 11.1), agree upon pollution parameters and pollutants for monitoring (Article 11.2), and carry out assessments of the transboundary waters and the effectiveness of measures (Article 11.3).

Institutions, reviews and decision-making

Institutions: The institutional arrangement established by the UNECE Water Convention is similar to that of modern MEAs. The main decision making body is the Meeting of the Parties (Article 17) that is supported by the Executive Secretary of the UNECE carrying out the usual secretariat functions (Article 19). Since the entry into force of the Convention, several other bodies have been set up. In 2003, the Meeting of the Parties established the Legal Board to deal with legal questions related to the work under the Convention upon request by any other body under the Convention as well as other Working Groups.³⁴³ In 2012, it established an Implementation Committee to facilitate, promote and safeguard the implementation, application and compliance with the UNECE Water Convention.³⁴⁴

In addition, riparian parties are required to enter into separate agreements or arrangements and to establish joint bodies (Article 9.2). In case of pre-existing agreements or arrangements without joint bodies, those have to be established. The UNECE Convention contains a detailed list of tasks to be performed by the joint body, including the provision for inventories and information exchange on pollution sources, the elaboration of joint water quality objectives, and the development of concerted action programmes.

Reporting: The UNECE Water Convention itself does not require the Parties to provide regular reports, but just to share information during the Meeting of the Parties. To track progress in the implementa-

³⁴² Rieu-Clarke (2017) at 195.

³⁴³ Decision III/3, Work under the Convention in the Period 2004-2006, Madrid, 26.-28. November 2003, ECE/MP.WAT/15/Add.1.

³⁴⁴ Decision VI/1, Support to Implementation and Compliance, Rome, 28.-30 November 2012, ECE/MP.WAT/37/Add.2.

tion of the Convention and of the newly established Sustainable Development Goal on Water, the Meeting of the Parties established a reporting mechanism in 2015 that started with a pilot reporting exercise in 2016-2017.³⁴⁵

Evaluation and review: The Convention assigns the Meeting of the Parties to keep its implementation under continuous review (Article 17.2). To this end, the Meeting of the Parties reviews the policies for and methodological approaches to the protection and use of transboundary waters (a), and considers and undertakes additional action that may be required for the achievement of the purpose of the Convention (f).

Compliance procedures, remedies and dispute settlement procedures: The UNECE Water Convention itself does not establish compliance procedures. In 2012, the Meeting of the Parties established a mechanism to support implementation and compliance.³⁴⁶ The objective of the mechanism is to facilitate, promote and safeguard implementation and application as well as compliance with the Convention, in a non-adversarial manner.

The UNECE Water Convention contains a provision on dispute settlement, suggesting using either the ICJ or an arbitration procedure set out in detail in the Annex IV, if the parties cannot solve their dispute by negotiations or other methods of dispute settlement (Article 22).

Stakeholder and public involvement: The UNECE Water Convention does not establish procedures for public participation, but requires certain information to be made available to the public. This includes information on the conditions of transboundary waters, measures taken or planned to be taken to prevent, control and reduce transboundary impacts, and the effectiveness of those measures. Addressees of this obligation are the riparian parties that share transboundary waters (Article 16).

Assessment

Coherence with other international treaties and policies: Since its entry into force in 2014, the 1997 Convention on the Law of the Non-navigational Uses of International Watercourses³⁴⁷ has become the main global instrument in the water sector. As the UNECE Water Convention has been open to accession from all Member States to the United Nations since 2013, the two treaties will be implemented in parallel in many countries. Analysis conducted in this regard came to the conclusion that the two conventions are not only compatible but also largely complementary: more detailed rules contained in either convention offer important elements of guidance for interpretation and application of less-detailed provisions on the same subject matter in the other convention.³⁴⁸

In comparison with bilateral or multilateral treaties between countries sharing transboundary waters, the UNECE Water Convention does not replace them, but requires the elimination of contradictions with the Convention's basic principles (Article 9.1).

The 1991 Convention on Environmental Impact Assessment in a Transboundary Context³⁴⁹ supplements the requirement of the UNECE Water Convention to develop, adapt and implement environmental impact assessment procedures to prevent, control and reduce transboundary impact. Procedures for the assessment of impacts on transboundary waters have to be consistent with the requirements of the Espoo Convention.³⁵⁰

³⁴⁵ Decision VII/1, Reporting under the Convention, Budapest, 17.-19. November 2015, ECE/MP.WAT/49/Add.2.

³⁴⁶ Decision VI/1, Support to Implementation and Compliance, Rome, 28.-30 November 2012, ECE/MP.WAT/37/Add.2.

³⁴⁷ Convention on the Law of the Non-navigational Uses of International Watercourses, New York, 21 May 1997, in force 17 August 2014, 36 *International Legal Materials* (1997), 700.

³⁴⁸ Rieu-Clarke (2017) at 195 et seq.; UNECE (2015) at 74 et seq.

³⁴⁹ Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 25 February 1991, in force 10 September 1997, 1989 United Nations, Treaty Series (1997), 309.

³⁵⁰ Boisson de Chazournes (2013) at 141.

Political weight of the instrument: The UNECE Water Convention has been ratified by 41 of the 56 members to the UNECE³⁵¹ in Europe and Central Asia. Due to its global opening, it can contribute to the coverage of a large number of transboundary basins by agreements and joint management structures.³⁵² Even before the formal entry into force of the amendment in 2013, that became operational in 2016, numerous non-UNECE countries participated in and contributed to activities under the UNECE Convention. While the focus has been on the involvement of neighbouring countries at the beginning, the participation of countries outside the UNECE region has meanwhile become usual practice.³⁵³ Whether the UNECE Water Convention will achieve global application, in particular next to the 1997 UN Watercourse Convention, remains to be seen.

Consideration of small and medium-scale companies: The UNECE Water Convention addresses its Parties and does not establish any specific requirements for private actors. However, the Parties have to regulate the pollution and use of waters with transboundary impacts and will therefore establish requirements for private actors. When drafting regulations, the Parties shall be guided by the polluter-pays principle and will therefore ensure that the costs of pollution prevention, control and reduction measures are borne by the polluter. There is no consideration of small and medium-scale companies.

Effectiveness: Over the years, the UNECE Water Convention has already contributed to the international water law process through its intergovernmental platform. Since its global opening in 2016, this effect could increase as wider and more diverse experience from various countries will come together.³⁵⁴

The Convention was instrumental for the efforts of its Parties to implement their international commitments on water such as the water-related Millennium Development Goals. As a global instrument, the Convention is expected to support the reaching of the Sustainable Development Goals in the future.³⁵⁵

Political opportunities and good practice examples:

- ▶ Interesting regulatory technique for fostering cooperation between riparian parties. Cooperation is facilitated on the international and on the regional level, allowing for general and more specific standards.
- ▶ The Convention accepts pre-existing regional agreements and requires Parties to eliminate inconsistencies.

³⁵¹ <https://www.unece.org/oes/nutshell/region.html> (last accessed on 28 February 2019).

³⁵² Trombitcaia and Koeppel (2015) at 26 et seq.

³⁵³ Trombitcaia and Koeppel (2015) at 27 et seq.

³⁵⁴ Trombitcaia and Koeppel (2015) at 26 et seq.

³⁵⁵ Trombitcaia and Koeppel (2015) at 26 et seq.

2.1.2.6 World Heritage Convention

Table 7: Convention Concerning the Protection of the World Cultural and Natural Heritage (adoption: 16 November 1972; in force: 17 December 1975)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Preserve cultural and natural heritage
Parties	193 countries that have ratified, incl. Germany
Territorial scope	Global
Resources covered	No specification, but mining important threat
Stage of the value chain	No specification
Steering tool	Information, monitoring
Assessment	++ Nearly universal participation, lacking enforcement mechanisms

Summary

The World Heritage Convention aims at protecting natural and cultural heritage with outstanding universal value. Although its obligations are not resource-specific, mining is one of the most important threats to the sites listed on the World Heritage list, and the Convention bodies have stated that resource extraction and heritage protection are incompatible. However, the Convention is mainly based on transparency obligations and “naming and shaming”, and is lacking enforcement mechanisms. The Convention enjoys nearly universal participation.

Overview

Form and legal status: The Convention Concerning the Protection of the World Cultural and Natural Heritage³⁵⁶ is an international treaty. It was adopted under the auspices of the UNESCO in 1972, and came into force on 17 December 1975. It has been ratified by 193 countries, including Germany, the United States, and China.³⁵⁷ The Operational Guidelines³⁵⁸, which are regularly updated by the World Heritage Committee, contain much of the normative content of the world heritage regime.³⁵⁹

Objectives: The objective of the Convention is to conserve and preserve natural and cultural heritage as part of the world heritage of mankind as a whole.

Territorial scope: The Convention is open to all states that are members of the UNESCO³⁶⁰. The Convention covers the territories of all its parties.

Type of steering tool: The Convention mainly draws on transparency obligations and “naming and shaming”: parties are requested to report on the state of conservation of heritage sites. The Convention bodies monitor the state of conservation, and may add sites to a list of “Sites in Danger”.

³⁵⁶ Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, in force since 17 December 1975, United Nations, Treaty Series, vol. 1037, p. 151.

³⁵⁷ <https://whc.unesco.org/en/statesparties/> (last visited 28 February 2019).

³⁵⁸ Available at <https://whc.unesco.org/en/guidelines/>.

³⁵⁹ Affolder (2007) at 38.

³⁶⁰ The UNESCO has 195 members and 10 associate members: <https://en.unesco.org/countries/member-states> (last visited 28 February 2019).

Links to extraction, processing and transport of resources

Resources covered: The Convention does not specifically include or exclude resources.

Environmental and social impacts covered: The Convention covers only those impacts of resource extraction, processing and transport processes that affect the outstanding universal value of heritage sites.

Steps of the value chain covered: The Convention potentially applies to all activities involving resources along the whole value chain.

Content

Relevant obligations for parties: The World Heritage Convention underlines the international interest in the protection of sites while at the same time highlighting the sovereignty of states over their heritage. While the obligations set out in the Convention itself often lack precision and contain many qualifiers, the Operational Guidelines contain most of the concrete guidance for parties.

The Convention establishes the main obligations of parties, namely to ensure the identification, nomination, protection, conservation, presentation, and transmission to future generations of the cultural and natural heritage found within their territory, to adopt respective policies and measures, to develop technical and scientific studies, and to establish training centres.

The core of the heritage regime is the concept of listing heritage sites on the World Heritage list.³⁶¹ Parties may propose cultural or natural heritage sites for listing to the World Heritage Committee (see below), which has the final say on this matter. The Convention states that parties “undertake not to take any deliberative measure which might damage directly or indirectly the cultural or natural heritage” (Article 6(3)). The Operational Guidelines further establish that parties shall take legislative and regulatory measures to protect the sites “from social, economic and other pressures or changes that might negatively impact the Outstanding Universal Value”³⁶². To this end, they also have to delineate the boundaries of the site and create buffer zones around heritage sites, where necessary for the protection of the site. If no buffer zone is created, the party needs to justify this decision.³⁶³ Parties are required to establish management systems for the sites and to regularly report on the status of conservation on the heritage sites on their territory (see “Periodic Reporting” below). If the site is threatened, the party need to undertake corrective measures

The Convention itself does only require parties to submit an inventory of heritages “as so far as possible”. The incentive for Parties to propose sites for listing is mainly one of prestige, but also the fact that financial assistance might be granted. Parties may request international assistance, e.g. for the conservation and management of heritage sites, or for emergency measures. The World Heritage Committee decides on the allocation of resources, giving priority to sites that are listed on the List of World Heritage in Danger.³⁶⁴

Institutions, reviews and decision-making

Institutions: The World Heritage Convention’s key body is the World Heritage Committee, composed of 21 parties that are elected by the General Assembly of Parties to the Convention.³⁶⁵ The Committee

³⁶¹ 1052 sites have been listed, 55 in danger, <https://whc.unesco.org/en/list/> (last accessed 28 February 2019).

³⁶² Paragraph 98 of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁶³ Paragraph 103-107 of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁶⁴ Paragraph 233 ff. of the Operational Guidelines for the implementation of the World Heritage Convention. No regional quotas are foreseen.

³⁶⁵ Currently the following states are members of the Committee: Angola, Azerbaijan, Burkina Faso, Croatia, Cuba, Finland, Indonesia, Jamaica, Kazakhstan, Kuwait, Lebanon, Peru, Philippines, Poland, Portugal, Republic of Korea, Tunisia, Turkey, United Republic of Tanzania, Viet Nam, Zimbabwe (as of 28 June 2017). See: <https://whc.unesco.org/en/committee/>.

meets at least once a year and additionally at extraordinary sessions.³⁶⁶ It determines which heritage sites are included in the “World Heritage List” (subject to the consent of the respective state) and the “list of World Heritage in Danger”, and decides on the use of resources of the World Heritage Fund. The World Heritage Fund is a trust fund, sourced primarily from both compulsory and voluntary contributions of parties. In 1992, a World Heritage Centre was established to work as the secretariat to the Convention.³⁶⁷

Reporting: Parties are required to submit reports on the application of the Convention and the state of conservation of World Heritage properties every six years (“Periodic Reporting”).³⁶⁸ States are also invited to report to the Heritage Centre on major activities to be undertaken in heritage sites that might affect the outstanding universal value (“state of conservation reports”). The guidelines clarify that notice should be given “before making any decisions that would be difficult to reverse”.³⁶⁹ The Committee assesses these reports region by region and advises the parties on measures to be taken. The last reporting cycle ran from 2008-2015, followed by a two-year reflection period on how the reporting process could be improved.³⁷⁰

Evaluation and review: The Convention does not foresee a review. However, the World Heritage Committee has developed through the Operational Guidelines much of the normative content of the regime, sometimes interpreting the Convention rather expansively.³⁷¹ These guidelines are regularly being reviewed by the Committee. Decisions in the Committee are taken by two-thirds majority.

Compliance procedures, remedies and dispute settlement procedures: The Convention does not establish a compliance procedure or a dispute settlement procedure. However, the Committee has established a “Reactive Monitoring” process for heritage sites under threat³⁷²: the World Heritage Centre, other sectors of UNESCO and the Advisory Bodies to the World Heritage Committee report to the Committee on the state of conservation of these listed heritage sites, based on information from the parties themselves (state of conservation reports) but also from other sources (NGOs, individuals, press articles, etc.); the party concerned needs to be given the opportunity to react to this information.³⁷³ If there is evidence that the site has seriously deteriorated, the Committee may decide to inscribe the site on the Heritage in Danger list, which does not require the consent of the respective state. The state of conservation of sites on the Heritage in Danger list are reviewed annually by the Committee, which may include monitoring missions to the site. The Committee determines corrective measures that should be taken by the respective party.³⁷⁴ The Committee has in a number of instances requested parties to halt mining activities in heritage sites, or to refrain from granting mining licenses.³⁷⁵ The Committee may also decide to delete the site completely from the World Heritage List, when it has deteriorated to the extent to lose its heritage characteristics, or where a party has failed to take the corrective measures. However, this option has only been used once when oil drilling destroyed the Arabian Oryx Sanctuary.³⁷⁶

³⁶⁶ Rule 2 of the Rules of Procedure of the Committee. The 41st meeting took place from 2-12 July 2017.

³⁶⁷ See <https://whc.unesco.org/en/world-heritage-centre/>.

³⁶⁸ Paragraph 199 ff. of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁶⁹ Paragraph 172 of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁷⁰ See <https://whc.unesco.org/en/pr-reflection/>.

³⁷¹ E.g. the provisions on reporting or the establishment of buffer zones go beyond the Convention text, see Affolder (2007) at 53.

³⁷² Paragraph 169 of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁷³ See <https://whc.unesco.org/en/reactive-monitoring/> (last accessed on 28 February 2019).

³⁷⁴ See paragraphs 190-191 of the Operational Guidelines. The Committee „urges“ states to take the corrective measures – this decision is not binding.

³⁷⁵ See for instance, Decision 39 COM 7A.13 Niokolo-Koba National Park (Senegal) (N 153) or Decision 38 COM 8B.5 Okavango Delta (Botswana).

³⁷⁶ Keough (2011) at 602.

Stakeholder and public involvement: The International Union for Conservation of Nature (IUCN), the International Council on Monuments and Sites (ICOMOS) and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) have been named in the Convention as advisory bodies to the World Heritage Committee (Article 8(3)). They attend the meetings of the Committee, advise on the implementation of the Convention, and assist e.g. with the monitoring of sites or decisions on listing new sites.³⁷⁷ The Committee may also call on other organisations to assist e.g. with the Reactive Monitoring. The World Heritage Centre has also established partnerships with a number of private and public stakeholders to help to mobilize funds, sponsor projects and raise awareness.³⁷⁸

Information from organisations and stakeholders are an important source for the World Heritage Centre and the Committee to become aware of possible threats to sites.³⁷⁹ Also during missions to sites, the teams usually consult with different local stakeholders to ascertain the state of the site and possible threats. The Committee has relied on several occasions on information from NGOs when deciding to list a site on the Heritage in Danger list.³⁸⁰

Assessment

Coherence with other international treaties and policies: The Committee aims to ensure coordination and information-sharing with other UNESCO Conventions and other relevant treaties such as the CBD, the UNFCCC, the Ramsar Convention, CITES, the Convention on Migratory Species (CMS) or UNCLOS.³⁸¹

Political weight of the instrument: The World Heritage Convention has achieved nearly universal participation, including important political players like the United States, China or Russia. The listing of so far 1052 heritage sites confirms the interest of states in this international regime.

Consideration of small and medium-scale companies: The Convention does not establish obligations directly linked to specific private actors.

Effectiveness: After around 40 years of being in force, the World Heritage Convention's success has been often cast into doubts. The number of ratifications is very high, and the possibility of receiving financial support has been an effective means to convince states to join the Convention.³⁸² However, issues of concern are the geographical imbalance of sites listed³⁸³, a democratic deficit³⁸⁴, and the very limited enforcement powers of the World Heritage Committee. Although a number of success stories can be named, it is questionable in view of many sites under threat whether the regime has been effective in protecting heritage sites. The listing of sites might even create perverse effects such as the increased attractiveness of sites for tourists and consequential deterioration of sites.³⁸⁵

The Convention does not explicitly prohibit mining. However, the World Heritage Committee names resource extraction as one of the 14 primary factors affecting heritage sites.³⁸⁶ Between beginning of 1979 and end of 2018, the Committee has received 392 reports on mining or quarrying issues in 43

³⁷⁷ Paragraph 31 of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁷⁸ <https://whc.unesco.org/en/become-partner/>.

³⁷⁹ See e.g. State of conservation of World Heritage properties, WHC/17/41.COM/7 Paris, 19 June 2017.

³⁸⁰ See Affolder (2007) at 61.

³⁸¹ Paragraph 41 ff. of the Operational Guidelines for the implementation of the World Heritage Convention.

³⁸² Keough (2011) at 598.

³⁸³ Of the currently listed 1053 sites, almost half pertain to Europe or North America; only 91 sites in Africa are listed, see <https://whc.unesco.org/en/list/>. See also Meskell (2013).

³⁸⁴ Only 21 parties represented in the Committee determine much of the normative content of the regime.

³⁸⁵ Keough (2011) at 608.

³⁸⁶ <https://whc.unesco.org/en/factors/>.

state parties.³⁸⁷ 25% of the sites reported in 2018 were affected by mining and quarrying activities.³⁸⁸ The Committee has stated that resource extraction and heritage protection are incompatible, and has in many instances requested parties to halt mining activities.³⁸⁹ *Affolder* names three examples where the involvement of the World Heritage Committee has at least influenced national decisions on mining in heritage sites.³⁹⁰ While the Convention might be able to influence decisions on new extraction permits, it is not very probable that a party would propose a site for listing if mining was already occurring.

Apart from the monitoring and listing process, the Convention bodies have also entered into direct dialogue with stakeholders on the issue of mining. The World Heritage Centre started in 1998 discussing the issue with the International Council on Mining in Metals, which adopted in 2003 the “no go commitment” committing all the ICMM’s member companies to not explore or mine in World Heritage sites.³⁹¹ The World Heritage Committee has urged the parties to the Convention to respect this no go commitment.³⁹² A number of oil companies and investors reacted to appeals of the Committee by also committing to not explore or mine in heritage sites, including Shell and Goldman Sachs.³⁹³

Political opportunities and good practice examples:

- ▶ Note: The 21st session of the General Assembly is on 14-15 November 2017
- ▶ Positive feature: direct involvement of selected NGOs as advisory bodies
- ▶ Positive experience: direct dialogue with the mining industry

³⁸⁷ https://whc.unesco.org/en/soc/?action=list&soc_start=1%2F01%2F1979&soc_end=31%2F12%2F2018&id_threats=100.101& (last accessed 28 February 2018).

³⁸⁸ See https://whc.unesco.org/en/soc/?&&soc_start=01.01.2018&soc_end=31.12.2018&groupby=threats&action=list&mode=chart (last accessed 28 February 2019).

³⁸⁹ See e.g. Decision: 39 COM 7A.13, Niokolo-Koba National Park (Senegal) (N 153). See also the list in IUCN (2013).

³⁹⁰ She examines the examples of Canada, United States and Australia. See *Affolder* (2007).

³⁹¹ See <https://www.iucn.org/fr/node/26245>.

³⁹² Decision 37 COM 7 (Part III).

³⁹³ <https://whc.unesco.org/en/extractive-industries/>.

2.1.2.7 Antarctic Treaty System

Table 8: Antarctic Treaty (adoption: 1 December 1959; in force: 23 June 1961)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Use for peaceful purposes; prevention of international discord
Parties	53 (29 consultative and 24 non-consultative parties)
Territorial scope	Antarctica (area south of 60° South Latitude)
Resources covered	None
Stage of the value chain	None
Steering tool	Framework
Assessment	+

Table 9: Minerals Convention (adoption: 2 June 1988)

Key aspects	Summary
Form and legal status	Not in force
Objectives	Use for peaceful purposes; prevention of international discord
Parties	None, although all parties signed
Territorial scope	Antarctica
Resources covered	Mineral resources
Stage of the value chain	Prospecting, exploration and development; no scientific research
Steering tool	Notification and authorisation
Assessment	+

Table 10: Environmental Protocol (adoption: 4 October 1991; in force: 14 January 1998)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Comprehensive protection of the Antarctic environment and dependent and associated ecosystems
Parties	39 (29 consultative and 10 non-consultative parties)
Territorial scope	Antarctica and areas of connected and associated ecosystems
Resources covered	Mineral resources
Stage of the value chain	Any activity relating to mineral resources other than scientific research
Steering tool	Prohibition
Assessment	++

Summary

The Antarctica is governed by the Antarctic Treaty System that includes the Antarctic Treaty of 1959 and several other international treaties. The Antarctic Treaty stipulates that Antarctica should be used exclusively for peaceful purposes, preserves the *status quo* with regard to territorial claims, and pro-

vides a framework for activities in Antarctica. The Environmental Protocol of 1991 prohibits any activities relating to mineral resources except for scientific research. It was negotiated after the Minerals Convention of 1988, which would have introduced an internationalised system for Antarctic mining including authorization procedures, lost the support of important states and therefore never entered into force.

The Environmental Protocol designates the Antarctica as a natural reserve. Its prohibition on any activity related to mineral resources, with the exception of scientific research, can only be revoked in case the consulting parties adopt another legally binding regime to replace the prohibition. Although the parties reaffirmed their territorial rights and even made submissions to the Commission on the Limits of the Continental Shelf that is responsible for deep seabed mining, the prohibition is currently effective and most likely not be questioned before 2048.

Overview

Form and legal status: The Antarctic Treaty System is a complex of international treaties developed under the Antarctic Treaty. The Antarctic Treaty³⁹⁴ was adopted on 1 December 1959 in Washington by twelve countries that were active in Antarctica and entered into force on 23 June 1961. Since then, it has been acceded by many countries and now has 53 parties.³⁹⁵ On 2 June 1988, the Minerals Convention³⁹⁶ (CRAMRA) was adopted in Wellington. Although it was signed by 19 states, none of them ever ratified the Convention.³⁹⁷ Later, the Minerals Convention was superseded by the Environmental Protocol³⁹⁸ that was adopted in Madrid on 4 October 1991 and entered into force on 14 January 1998 after all consultative parties at the time had ratified it. The Environmental Protocol currently has 39 parties.³⁹⁹

Objectives: The Antarctic Treaty aims to ensure that “Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or objective of international discord” (Preamble of the Antarctic Treaty). The Minerals Convention reiterated these objectives (Article 2.1 of the Minerals Convention). The Environmental Protocol states the conviction of parties that the Antarctic Treaty system needs to be strengthened (Preamble of the Environmental Protocol) and aims to develop “a comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems” (Preamble and Article 2 of the Environmental Protocol).

Territorial scope: Geographically, the Antarctic Treaty applies to the Antarctica, defined as the area south of 60° South Latitude, including all ice shelves (Article VI of the Antarctic Treaty). However, it clarifies that the provisions of the Antarctic Treaty do not affect high sea rights within that area. The Environmental Protocol applies to the Antarctic environment and dependent and associated ecosystems (Article 2 of the Environmental Protocol) and therefore extends the territorial scope further north. Further, it has been argued that the prohibition of mining in Article 7 of the Environmental Protocol applies to the continental shelf and deep seabed surrounding the Antarctic continent and the Antarctic islands up to the limit of 60° South Latitude, and extends beyond the Antarctic environment and its dependent and associated ecosystems in case the mining activities would have an impact on the environment and the dependent and associated ecosystems.⁴⁰⁰

³⁹⁴ The Antarctic Treaty, Washington, 1 December 1959, in force 23 June 1961, 402 United Nations, Treaty Series (1961), 71.

³⁹⁵ See https://www.ats.aq/devAS/ats_parties.aspx?lang=e (last accessed on 28 February 2019).

³⁹⁶ Convention on the Regulation of Antarctic Mineral Resource Activities, Wellington, 2 June 1988, available on the internet https://www.ats.aq/documents/recatt/Att311_e.pdf (last accessed on 28 February 2019).

³⁹⁷ See <https://www.mfat.govt.nz/en/about-us/who-we-are/treaties/convention-on-the-regulation-of-antarctic-mineral-resource-activities/> (last accessed 28 February 2019).

³⁹⁸ Protocol on Environmental Protection to the Antarctic Treaty, Madrid, 4 October 1991, in force 14 January 1998, 30 *International Legal Materials* (1991), 1455.

³⁹⁹ See https://www.ats.aq/devAS/ats_parties.aspx?lang=e (last accessed on 28 February 2019).

⁴⁰⁰ Rothwell (2000) at 596 et seq.

Type of steering tool: The Antarctic Treaty provides a framework for activities in Antarctica determining that it may only be used for peaceful purposes (Article I of the Antarctic Treaty). The Minerals Conventions differentiated between three different stages of mineral activity. While prospecting would have been allowed without prior authorization (Article 37 of the Minerals Convention), exploration and development would have needed such prior authorization (Articles 44 and 53 of the Minerals Convention). In comparison, the Environmental Protocol uses a much stricter steering tool than the Minerals Convention. It designates Antarctica as a natural reserve (Article 2 of the Environmental Protocol) and prohibits any activity relating to mineral resources other than scientific research (Article 7 of the Environmental Protocol). Effectively, the Environmental Protocol establishes a moratorium on mining for probably at least 50 years.⁴⁰¹

Links to extraction, processing and transport of resources

Resources covered: The Environmental Protocol prohibits any activity relating to mineral resources other than scientific research (Article 7 of the Environmental Protocol). While there is no definition of the term mineral resources, there is no reason for a narrow interpretation. Hence, the Environmental Protocol applies to all mineral resources. The Minerals Convention defined mineral resources as all non-living natural non-renewable resources, including fossil fuels, metallic and non-metallic minerals (Article 1 Number 6 of the Minerals Convention).

Environmental and social impacts covered: The Environmental Protocol aims to protect the Antarctic environment as well as dependent and associated ecosystems (Article 2 of the Environmental Protocol). It covers all potential impacts of mineral activities and follows an ecosystem approach.⁴⁰²

Steps of the value chain covered: Article 7 of the Environmental Protocol prohibits any activity relating to mineral resources other than scientific research, without specifying which activities this includes. However, by reference to the definition in the Minerals Convention, Antarctic mineral resource activities comprise prospecting, exploration or development (Article 1 Number 7 of the Minerals Convention). The Minerals Convention also defines these three activities. In general, prospecting means activities aimed at identifying areas of mineral resource potential for possible exploration, exploration means activities aimed at identifying and evaluating specific mineral resource occurrences or deposits, and development means activities which take place following exploration and includes pilot projects, processing, storage, and transport activities (Article 1 Number 8 to 10 of the Minerals Convention).

Content

Relevant obligations for parties: Under the Antarctic Treaty system, parties have several obligations in regard to the Antarctica. Activities specifically relating to mineral resources are addressed by the Environmental Protocol that replaced the complex system of the Minerals Convention that never entered into force.

The Minerals Convention provided for an internationalised system for Antarctic mining similar to that applicable under Part IX UNCLOS for deep seabed mining (see the section on UNCLOS).⁴⁰³ Parties would have needed to notify prospecting activities (Article 37 of the Minerals Convention) and to apply for a permit for exploration and development activities (Articles 44 and 53 of the Minerals Convention).

The Environmental Protocol now prohibits *any* activity related to mineral resources, other than scientific research, in Antarctica (Article 7 of the Environmental Protocol). This prohibition will remain in

⁴⁰¹ Abdel-Motaal (2016) at 110. According to Article 25.2 of the Environmental Protocol, every consultative party to the Antarctic Treaty can request a conference to review the operation of the Protocol.

⁴⁰² Rothwell (2000) at 594.

⁴⁰³ Stephens (2011) at 325.

force until a legal regime concerning mineral resources has been established (Article 25.5 lit. a) and has recently been reinforced by the parties.⁴⁰⁴ After the expiration of 50 years after entry into force of the Environmental Protocol, any consultative party may request a conference to review the operation of the Protocol (Article 25.2 of the Environmental Protocol). Hence, the Environmental Protocol includes an indefinite prohibition on any activity relating to mineral resources other than scientific research.⁴⁰⁵

Accordingly, *scientific research* related to mineral resources is subject to the requirements contained in the Environmental Protocol. Parties have to cooperate in the planning and conduct of activities (Article 6.1 of the Environmental Protocol), and are required to conduct an environmental impact assessment (Article 8.1 of the Environmental Protocol). Also, with regard to environmental emergencies, parties have to require operators to undertake reasonable preventative measures, to establish contingency plans, to take response measures, and to pay the costs of response measures taken by parties (Annex VI of the Environmental Protocol).

Institutions, reviews and decision-making

Institutions: There are three main institutions under the Antarctic Treaty System: the Antarctic Treaty Consultative Meeting (ATCM), the Secretariat of the Antarctic Treaty and the Committee for Environmental Protection (CEP).

The Antarctic Treaty itself only provided for the *Antarctic Treaty Consultative Meeting* (Article IX of the Antarctic Treaty) that meets annually.⁴⁰⁶ It functions as a forum for information exchange, consultation, and formulation of measures, decisions and resolutions. Out of the 53 parties, there are by now 29 consultative parties with recognized activities in Antarctica and 24 non-consultative parties that do not participate in decision-making. Only the consultative parties have decision-making powers (Article IX.1 of the Antarctic Treaty). Other contracting parties need to demonstrate their interest in Antarctica in order to participate in the meetings in which new measures are discussed (Article IX.2 of the Antarctic Treaty).

Due to the initial reluctance of some consultative parties to accept any form of “permanent administrative machinery”⁴⁰⁷ it took until 2001 to establish the *Secretariat of the Antarctic Treaty*.⁴⁰⁸ It is situated in Buenos Aires and has various functions, including the support of the annual Antarctic Treaty Consultative Meeting and of the meetings of the Committee for Environmental Protection, the facilitation of exchange of information between the parties, the provision of information about the Antarctic Treaty System as well as the collection, storage and archiving of documents of the Antarctic Treaty Consultative Meeting.⁴⁰⁹

In addition, the Environmental Protocol established the *Committee for Environmental Protection* (Article 11 of the Environmental Protocol). Its role is to “provide advice and formulate recommendations to the parties in connection with the implementation” of the Environmental Protocol. The advice relates to the effectiveness of measures, the need to update or strengthen measures, the collection of information related to environmental protection, the state of the Antarctic environment, and the need for

⁴⁰⁴ Resolution 6 (2016) – ATCM XXXIX – CEP XIX, Santiago, 1 June 2016, available on the internet at <https://www.scar.org/library/policy/antarctic-treaty/atcm-xxxix-and-cep-xix-2016/> (last accessed on 28 February 2019).

⁴⁰⁵ Committee for Environmental Protection (2016) at 7.

⁴⁰⁶ See http://www.ats.aq/e/ats_meetings_atcm.htm (last accessed on 28 February 2019).

⁴⁰⁷ Scott (2003) at 476.

⁴⁰⁸ Decision 1 (2001) – ATCM XXIV – CEP IV, St. Petersburg, 20 July 2001, available on the internet at https://www.ats.aq/de-vas/info_measures_listitem.aspx?lang=e&id=278 (last accessed on 28 February 2019).

⁴⁰⁹ Measure 1 (2003): Secretariat of the Antarctic Treaty, Madrid, 16 June 2003, available at https://www.ats.aq/de-vas/info_measures_listitem.aspx?lang=e&id=294 (last accessed on 28 February 2019).

scientific research (Article 12. 1 of the Environmental Protocol). The Committee has met annually since 1998, usually in conjunction with the Antarctic Treaty Consultative Meeting.⁴¹⁰

Reporting: The Environmental Protocol requires parties to report annually on the steps taken for implementation to the Committee on Environmental Protection and also to the other parties (Article 17 of the Environmental Protocol).

Evaluation and review: Both, the Antarctic Treaty and the Environmental Protocol, provide for review procedures.

Under the *Antarctic Treaty*, every consultative party can request a conference to review the operation of the Treaty after it has been effective for 30 years (Article XII.2 lit. a of the Antarctic Treaty). The *Environmental Protocol* provides for a similar procedure, just extending the period to 50 years after entry into force (Article 25.2 of the Environmental Protocol). Also, Article 7 of the Environmental Protocol can only be modified or amended in case another legally binding regime is put into place (Article 25.5 lit a of the Environmental Protocol).

In addition to this extraordinary review after 50 years, the Environmental Protocol establishes procedures for regular reviews. The Antarctic Treaty Consultative Meeting considers the reports submitted by the parties on their implementation activities (Article 17.2 of the Environmental Protocol) and reviews the work of the Committee on Environmental Protection (Article 10.2 of the Environmental Protocol).

Compliance procedures, remedies and dispute settlement procedures: Both, the Antarctic Treaty and the Environmental Protocol, provide for procedures to settle disputes. A mechanism to ensure compliance is the designation of observers.

Under the Antarctic treaty, issues concerning interpretation or application are addressed first by consultation, potentially followed by a reference to the International Court of Justice (Article XI of the Antarctic Treaty). Under the Environmental Protocol, the second step for certain provisions, including mineral resources, can also be an Arbitral Tribunal (Article 19 of the Environmental Protocol). As the parties have to choose one of the two options on ratification, the second step is not conditional on consent of both parties at the time of the dispute.

Under the Antarctic Treaty, each consultative party has the right to designate observers to carry out inspections (Article VII.1 of the Antarctic Treaty). The observers transmit their reports to the representative of their party in the Antarctic Treaty Consultative Meeting (Article IX.3 of the Antarctic Treaty). The Environmental Protocol upgrades the right to designate observers to an obligation to arrange, individually or collectively, inspections by observers (Article 14.1 of the Environmental Protocol). Reports of inspections are sent to the Parties concerned for comment, circulated to all the parties and to the Committee on Environmental Protection, considered at the next Antarctic Treaty Consultative Meeting, and thereafter made publicly available (Article 14.4 of the Environmental Protocol).

Stakeholder and public involvement: Both, the Antarctic Treaty and the Environmental Protocol, provide for the involvement of non-governmental stakeholders. Scientific and environmental NGOs have played an active role in the governance of the Antarctic.⁴¹¹

The Antarctic Treaty promotes international cooperation in scientific investigation in Antarctica. In this regard, parties have to encourage international organisations having a scientific or technical inter-

⁴¹⁰ Committee for Environmental Protection (2016), p. 13.

⁴¹¹ Schramm, Stokke and Vidas (1996) at 96 et seq.

est in Antarctica (Article III.2 of the Antarctic Treaty). Also, the Rules of Procedure provide for the participation of experts from international organisations in the sessions of the Antarctic Treaty Consultative Meeting.⁴¹²

The Environmental Protocol provides for the participation of non-governmental stakeholders in the sessions of the Committee for Environmental Protection. First, the delegates may be accompanied by experts and advisers (Article 11.3 of the Environmental Protocol). Second, the Committee for Environmental Protection may, with the approval of the Antarctic Treaty Consultative Meeting, invite scientific, environmental and technical organisations which can contribute to its work to participate as observers at its sessions (Article 11.4 of the Environmental Protocol).

Assessment

Coherence with other international treaties and policies: There are several other international treaties that are relevant for activities in the Antarctica. The main overlaps are with treaties regarding the sea. First, there is an overlap with UNCLOS⁴¹³ as the Antarctic Treaty applies to the area south of 60° South Latitude. However, according to its Article VI the Antarctic Treaty does not prejudice rights that states have with regard to the high sea within this area. Second, there is an overlap with MARPOL⁴¹⁴ in regard to pollution from ships. In this regard, Article 14 of Annex IV to the Environmental Protocol declares MARPOL applicable. Still, in regard to mining activities in the Antarctica, the prohibition in Article 7 of the Environmental Protocol prevails. As long as Article 7 of the Environmental Protocol is effective, Part XI of UNCLOS on deep sea mining (see the section on UNCLOS) is not applicable to the area covered by the Environmental Protocol.

Political weight of the instrument: Participation in the Antarctic Treaty grew from initially twelve states to presently 53.⁴¹⁵ It managed to put on hold sovereign claims to that area and when parties could have required a review conference after 30 years, they declared their continuing support. The Minerals Convention would have provided for an internationalised system for Antarctic mining, but none of the 19 states that signed it ever ratified it due to objections from environmental groups and the withdrawal of Australia and France from formal participation in the Convention.⁴¹⁶ Instead, the Environmental Protocol was negotiated between 1989 and 1991 that was ratified by all 29 consultative members and 10 non-consultative members.⁴¹⁷ So far the Antarctic Treaty System has shown “significant resilience and has successfully weathered storms challenging its stability.”⁴¹⁸ In 2016, the parties confirmed their ongoing commitment to the prohibition in Article 7 of the Environmental Protocol for any mineral resource activity.⁴¹⁹

Consideration of small and medium-scale companies: Neither the Antarctic Treaty nor the Environmental Protocol consider small and medium-scale companies.

⁴¹² Decision 2 (2016) – ATCM XXXIX – CEP XIX, Santiago, 1 June 2016, available on the internet at https://www.ats.aq/de-vas/info_measures_listitem.aspx?lang=e&id=632 (last accessed 28 February 2019).

⁴¹³ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, in force 16 November 1994, 21 *International Legal Materials* (1982), 1261.

⁴¹⁴ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters, London, 2 November 1973, in force 2 October 1983, 12 *International Legal Materials* (1973), 1319, modified by the Protocol Relating to the Convention for the Prevention of Pollution from Ships, London, 17 February 1978, in force 2 October 1983, 17 *International Legal Materials* (1978), 246.

⁴¹⁵ Myhre (1989) at 37; Stephens (2011) at 325; Joyner (2010) at 16.

⁴¹⁶ Stephens (2011) at 325; Joyner (2010) at 16.

⁴¹⁷ Committee for Environmental Protection (2016) at 7.

⁴¹⁸ Liggett (2015) at 64.

⁴¹⁹ Resolution 6 (2016) – ATCM XXXIX – CEP XIX, Santiago, 1 June 2016, available on the internet at https://www.ats.aq/de-vas/info_measures_listitem.aspx?lang=e&id=642 (last accessed 28 February 2019).

Effectiveness: Currently, the prohibition for any mineral resource activities under Article 7 of the Environmental Protocol effectively protects the Antarctic environment and connected and associated ecosystems.⁴²⁰ However, submissions made under UNCLOS to the Commission on the Limits of the Continental Shelf (see the section on UNCLOS) indicate efforts to strengthen Antarctic territorial claims and prepare for a time when mineral resource exploitation might be feasible.⁴²¹ Nevertheless, in the absence of a new regime governing Antarctic minerals, the prohibition is indefinite and put an end to any uncertainty concerning Antarctic minerals that might have existed.⁴²² Currently, the Antarctic Treaty system is still effective and stable.⁴²³

Political opportunities and good practice examples:

- ▶ The prohibition on mineral resource activities is effective, probably also because they are not yet feasible.
- ▶ Rolling back the mining ban is in theory possible at any time, but is not likely until the 2048 review conference at the earliest.⁴²⁴
- ▶ The obligatory system of inspections by observers is a strong compliance instrument and quite rare in the environmental field.

2.1.2.8 Convention on Biological Diversity (CBD)

Table 11: CBD (adoption: 5 June 1992; in force: 29 December 1993)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Conservation of biodiversity, sustainable use of its components, fair and equitable sharing of benefits out of genetic resources
Parties	196 countries that have ratified, incl. Germany, excl. USA
Territorial scope	Global
Resources covered	Directly biotic resources, indirectly any use of resources harming biodiversity
Stage of the value chain	Mining, transport manufacturing, recycling, waste disposal
Steering tool	Information, regulation, planning, procedural, financial
Assessment	++ Widely ratified global convention with high impact on mining activities, effectiveness hampered by soft wording

Summary

The Convention on Biological Diversity (CBD)⁴²⁵ is an environmental convention aiming at the protection of biodiversity from any potentially harmful activity, including from mining of abiotic resources. Important instruments to protect biodiversity from the impacts of mining are in-situ conservation measures, in particular the establishment of protected areas, and environmental impact assessments. Regarding social impacts, the CBD recognises the dependence of the traditional lifestyles of indigenous

⁴²⁰ Stephens (2011) at 320.

⁴²¹ Liggett (2015) at 70.

⁴²² Stephens (2011) at 320.

⁴²³ Stephens (2011) at 316.

⁴²⁴ Stephens (2011) at 325. Assumption based on Article 25.2 of the Environmental Protocol.

⁴²⁵ Convention on Biological Diversity, 5 June 1992, United Nations, Treaty Series, vol. 1760, p. 79.

local communities on biological resources and provides for the preservation of relevant knowledge and practices and the equitable sharing of the benefits resulting from their utilisation. Being a framework convention, the effectiveness of the CBD largely depends on the willingness of the parties to fulfil their obligations to adapt their national legislations and to cooperate, and on the development of the soft wording into more detailed, concrete standards for ecosystem preservation. The conservation of biological diversity is recognised as “common concern of humankind”, which restricts the principle of permanent sovereignty of natural resources. The CBD gives non-party states and qualified stakeholders the right to observe and comment upon progress.

In addition to the following overview, the analysis of the CBD also includes a section on implementation.

Overview

Form and legal status: The CBD is an international treaty that was adopted on 5 June 1992. The Convention entered into force on 29 December 1993. 196 countries have ratified so far, including important players such as China.⁴²⁶ The USA, however, have signed but not ratified the Convention.⁴²⁷

Objectives: The objectives of the CBD are “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of the genetic resources [...]” (Article 1). Biological diversity as defined by the CBD⁴²⁸ must be preserved at three levels: genetic diversity within species, species diversity, and diversity of ecosystems.⁴²⁹

Territorial scope: The CBD is open to all states and regional economic integration organisations. It applies not only to the territory of its parties but also to processes and activities carried out under the parties’ jurisdiction or control beyond the limits of national jurisdiction. Moreover, the obligation of parties to cooperate extends to areas beyond national jurisdiction (Art. 5).

Type of steering tool: The CBD uses information tools, planning tools (development and adaption of national strategies, plans, or programmes for the conservation and sustainable use of biological diversity), regulatory instruments (e.g. measures for in-situ and ex-situ conservation), procedural tools (environmental impact assessment), and financial tools (fund for developing countries).

Links to extraction, processing and transport of resources

Resources covered: Directly, the CBD targets the variability among living organisms, i.e. only biotic resources. Indirectly, any activity potentially harming biodiversity is covered by the Convention, which includes the extraction, processing and transport of abiotic resources.

Environmental and social impacts covered: The CBD is an environmental convention aiming at the protection of biodiversity from any potentially harmful activity. Article 3 states the right of states to exploit their resources but combines it with the duty to prevent transboundary harm and damage to areas beyond national jurisdiction. In addition, the preamble “affirms” that the conservation of biological diversity is a “common concern of humankind”. While the exact meaning and implications of this principle are unclear and debated,⁴³⁰ biodiversity has ceased to be the internal affair of a single state and

⁴²⁶ As of 28 February 2019, 196 countries have ratified, see status of ratification at https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVII-8&chapter=27&clang=en (last visited on 28 February 2019).

⁴²⁷ Ibid.

⁴²⁸ “The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.” (Art. 2 CBD).

⁴²⁹ Dupuy and Viñuales (2015) at 187.

⁴³⁰ According to the most widespread view in literature, the responsibilities related to resources of common concern have erga omnes effect, i.e. are directed towards the international community as a whole, and can be enforced by any other state,

has become the concern of all states.⁴³¹ The notion of common concern is the basis for the obligations of the CBD concerning conservation of biodiversity and the international interest in the environmental implications of such activities.⁴³² On the other hand, the sustainable use of biological *resources* is a matter of the sovereignty of the relevant state, but subject to a system of access and benefit sharing.⁴³³

Social impacts are only covered in so far as the CBD recognises the dependence of the traditional lifestyles of indigenous local communities on biological resources, and provides for the preservation of relevant knowledge and practices and the equitable sharing of the benefits resulting from their utilisation.⁴³⁴ COP 7 has adopted voluntary guidelines for the conduct of cultural, environmental, and social impact assessment of development planned for, or likely to impact on, sacred sites and lands and waters traditionally occupied or used by indigenous or local communities (*Akwé Kon Guidelines*).⁴³⁵ These guidelines provide a framework to ensure the full involvement of indigenous and local communities in the assessment of cultural, environmental and social concerns and interests of these communities of proposed developments.⁴³⁶ Moreover, the Conference of the Parties has established an ad hoc working group on the implementation of Art. 8 (j) CBD.⁴³⁷

Steps of the value chain covered: The CBD indirectly addresses each step of the lifecycle of abiotic resources potentially harming biodiversity: extraction (mining), transport, manufacturing, waste disposal, etc.

Content

Relevant obligations for parties: The CBD's provisions are largely expressed as goals and principles to be followed and implemented by Parties through national measures and policies, rather than as precisely defined obligations; therefore the CBD is regarded as a framework convention for promoting conservation and sustainable use of biodiversity.⁴³⁸

The CBD's obligations for parties are expressed in Art. 5-20. Under the heading "general measures for conservation and sustainable use", Art. 6 requires parties to develop or to adapt national strategies, plans, or programmes for the conservation and sustainable use of biological diversity, and to integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes or policies. Art. 7 obliges parties to identify components of biological diversity which are important for conservation and use, and indicated in Annex I, and to monitor them. Moreover, parties shall identify processes and activities which may have significant adverse effects on conservation and sustainable use of biological diversity, monitor their effects and maintain and organise the relevant data.⁴³⁹

The most relevant obligations are contained in Art. 8-10 CBD. Art. 8 lists measures for *in-situ* conservation⁴⁴⁰, which include the establishment of protected areas or areas where special measures need to be taken to conserve biological diversity, the rehabilitation and restoration of degraded ecosystems and

see Durner (2001) at 241, 254 and 260 et seq. with further references. According to Wolfrum (1996) at 381, another consequence of the principle of common concern is the duty of cooperation among states.

⁴³¹ See Wolfrum (1996) at 380.

⁴³² See Birnie et al (2009) at 621; Wolfrum (1996) at 380-381.

⁴³³ Dupuy and Viñuales (2015) at 187.

⁴³⁴ See the Preamble and Art. 8 (j) CBD.

⁴³⁵ COP 7 decision VII/16.

⁴³⁶ Working Group on Article 8 (j), available at <https://www.cbd.int/convention/wg8j.shtml> (last visited 28 February 2019).

⁴³⁷ See Working Group on Article 8 (j), available at <https://www.cbd.int/convention/wg8j.shtml> (last visited 28 February 2019).

⁴³⁸ Birnie et al (2009) at 616.

⁴³⁹ See also the Addis Ababa Principles and the Guidelines for the Sustainable Use of Biodiversity adopted by COP 7 in 2004, available at <https://www.cbd.int/doc/publications/addis-gdl-en.pdf> (last visited 28 February 2019).

⁴⁴⁰ „In-situ conservation” is defined by Art. 2 and basically refers to the conservation of ecosystems and natural habitats and the maintenance and recovery of viable population of species in their natural surroundings.

promotion of the recovery of threatened species, and the development and maintenance of necessary legislation or regulatory provisions for the protection of threatened species and populations. Measures for *ex-situ* conservation⁴⁴¹ under Art. 9, e.g. measures to reintroduce threatened species into their natural habitats, are mainly intended to complement the in-situ measures. Art. 10 contains obligations related to sustainable use⁴⁴², for example adopting measures to avoid or minimize adverse impacts on biological diversity, or protecting and encouraging customary use of biological resources in accordance with traditional cultural practices compatible with conservation and sustainable use. These preservation provisions, in particular on the establishment of protected areas, have the most immediate relevance to mining.⁴⁴³

In addition, Art. 14 CBD requires parties, “as far as possible and as appropriate”, to put in place environmental impact assessment procedures for projects that may have significant adverse effects on biological diversity. In contrast to the Espoo Convention⁴⁴⁴, the CBD provision is not limited to trans-boundary effects but also applicable to domestic projects without such effects. Public participation is provided “where appropriate”. The COP has developed guidelines for its implementation.⁴⁴⁵

Article 14 CBD also requires parties to introduce appropriate arrangements to ensure that the environmental consequences of their programs and policies that are likely to have significant adverse impacts on biodiversity are duly taken into account (strategic environmental assessment, SEA). The COP has developed draft guidelines.⁴⁴⁶

Art. 15 (7) obliges parties to take measures aimed at sharing genetic resources and the benefits arising from their commercial and other use in a fair and equitable way. Details are provided by the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS Protocol).⁴⁴⁷ Risks arising from biotechnology, especially those from “living modified organisms” (LMOs), are addressed in several CBD provisions and in more detail by the Cartagena Protocol which refers to the precautionary principle⁴⁴⁸, and the Nagoya Kuala Lumpur Protocol on liability and Redress.⁴⁴⁹ Both aspects, while being central to the CBD, are not relevant for the efficiency of abiotic resources.

Moreover, the CBD includes obligations to cooperate, to exchange information, to provide for incentives and financial resources, research and training, public education and awareness.

Institutions, reviews and decision-making

Institutions: The CBD has the usual institutional structure and follows the approach of modern MEAs of establishing a Conference of the Parties (COP) that is to review the treaty’s implementation. The CBD Secretariat is based in Montreal, Canada. The CBD established a Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) which provides information to the COP on the technical as-

⁴⁴¹ „Ex-situ conservation” means the conservation of components of biological diversity outside their natural habitats (Art. 2).

⁴⁴² “Sustainable use” is defined as “using the components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations” (Art. 2).

⁴⁴³ See Pring (1999) at 12; Phillips (2001).

⁴⁴⁴ Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, Finland, 25 February 1991, United Nations, Treaty Series, vol. 1989, p. 309.

⁴⁴⁵ CBD Decision VI/7, U.N. Doc. UNEP/CBD/COP/6/20 at 93.

⁴⁴⁶ Cf. the CBD’s draft guidance on biodiversity-inclusive strategic environmental assessment, decision VIII/28 and document UNEP/CBD/COP/8/27/Add.2.

⁴⁴⁷ Of 29 October 2010, in force since 12 October 2014, UNEP/CBD/COP/DEC/X/1 of 29 October 2010.

⁴⁴⁸ Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 29 January 2000, in force since 11 September 2003, United Nations, Treaty Series, vol. 2226, p. 208.

⁴⁴⁹ Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, 15 October 2010, in force since 5 March 2018, UNEP/CBD/BS/COP-MOP/5/17 of 15 October 2010.

pects of the CBD's implementation. In 2014, the Subsidiary Body for Implementation (SBI) was established 2014 with a core mandate including: (a) review of progress in implementation; (b) strategic actions to enhance implementation; (c) strengthening means of implementation; and (d) operations of the convention and the Protocols.⁴⁵⁰ Other subsidiary bodies have been created by the COP for a limited mandate and period of time ("ad hoc open-ended Working Groups"), inter alia on protected areas and on the review of implementation of the CBD.⁴⁵¹ The system created by the CBD has been called a "normative factory", since both the CBD and its bodies "focus on the development of numerous standards, guidelines and other measures to guide the adoption of domestic measures."⁴⁵²

Reporting: Parties are required to report on the implementation of the CBD and its effectiveness.

Evaluation and review: The COP's key function is to guide and keep the CBD's implementation under review⁴⁵³, which includes for example reviewing scientific and other sources of advice, adopting protocols and amendments and establishing subsidiary bodies.⁴⁵⁴ In reviewing progress of implementation, it is supported by the Subsidiary Body on Implementation established in 2014.⁴⁵⁵ In 2010, the COP adopted the Strategic Plan for Biodiversity for the 2011-2020 period and the Aichi biodiversity targets, which provides an overarching international framework, not only for the CBD and other biodiversity-related conventions, but for the entire UN system and all other partners engaged in biodiversity management and policy development.⁴⁵⁶

Compliance procedures, remedies and dispute settlement procedures: The CBD provides incentives aimed at inducing participation and compliance.⁴⁵⁷ Similar to other multilateral environmental treaties, developed countries are obliged to provide support to developing countries, in particular "new and additional" financial resources to enable developing countries to implement the CBD (Art. 20 (2)). However, the use of such funds by developing states is subject to regular monitoring and evaluation by the COP and the funding mechanism (GEF).⁴⁵⁸ Another incentive is the access to and transfer of technology, e.g. for the conservation and sustainable use of biological diversity.

Concerning dispute settlement, the CBD contains the typical clause of MEAs prescribing negotiations and offering voluntary resort to alternative methods of settlement such as arbitration or the ICJ.⁴⁵⁹

Stakeholder and public involvement: According to Art. 23 (5) CBD, the United Nations, its specialized agencies and the International Atomic Energy Agency, as well as non-party states, may participate at COP meetings as observers. Any other body or agency qualified in fields related to conservation and sustainable use of biological diversity may be admitted as observers as well, unless at least one third of the parties object. This corresponds to the principle of common concern of humankind affirmed in the CBD preamble which provides at least a general basis for international action, gives all states an interest in conserving biodiversity and the right to observe and comment upon progress.⁴⁶⁰ Thus, the COP "provides a forum in which criticism can be voiced and common problem and solutions discussed".⁴⁶¹

⁴⁵⁰ CBD decision XII/26.

⁴⁵¹ See <https://www.cbd.int/convention/bodies/intro.shtml> (last visited on 28 February 2019).

⁴⁵² Dupuy and Viñuales (2015) at 189.

⁴⁵³ Birnie et al (2009) at 638.

⁴⁵⁴ See Art. 23 CBD.

⁴⁵⁵ COP Decision XII/12 and terms of reference in annex to decision XII/26. See also the modus operandi of the SBI annexed to decision XIII/25.

⁴⁵⁶ See <https://www.cbd.int/sp/>.

⁴⁵⁷ Birnie et al (2009) at 636.

⁴⁵⁸ See Art. 21 (2) and Birnie et al (2009) at 633.

⁴⁵⁹ Birnie et al (2009) at 630, 639. See Art. 27 and Annex II for arbitration and conciliation.

⁴⁶⁰ Birnie et al (2009) at 619.

⁴⁶¹ Birnie et al (2009) at 619.

Implementation

The parties to the CBD – states and the EU – have an obligation under international law to comply with the CBD's provisions and fulfil its obligations. By default, parties are free as to how they do fulfil their obligations, unless the treaty provides otherwise. In the case of treaty regimes such as the CBD, the work of the **bodies** established under it, most importantly decisions by the COP, are mandated to set out in more detail how to implement the CBD. Questions of implementation include what parties are supposed to do and which mechanisms are there to monitor, exchange views on, facilitate and enforce implementation.

There are **three main hooks** for implementing the CBD at national level specifically with regard to mining: National Biodiversity Strategies and Action Plans (NBSAPs), the Strategic Plan for Biodiversity 2011-2020 with the so-called Aichi targets, and a COP14 decision of 2018 on mainstreaming biodiversity in the mining sector.⁴⁶²

The **NBSAP** is the main general instrument for linking the CBD to implementation at the national level. It is basically an obligation for national biodiversity planning and to ensure that it is mainstreamed into the planning and activities of all sectors whose activities can have an impact on biodiversity – which includes mining. As of July 2018, 190 of the CBD's 196 parties had submitted NBSAPs.⁴⁶³ While the COP has addressed the NBSAP and provided guidance regarding content and process in several COP decisions,⁴⁶⁴ there is no guidance specifically on mining. There is no direct obligation in Article 6 CBD to regularly or periodically review or update NBSAPs.

When the CBD adopted its **Strategic Plan** for Biodiversity 2011-2020 and its **Aichi Biodiversity Targets** in 2010, the COP also urged parties to review and revise their NBSAPs accordingly, and to report to the COP. Subsequent decisions also referred to indicators for the Strategic Plan as well as indicators for the Sustainable Development Goals.⁴⁶⁵ As of July 2018, 146 parties had submitted an NBSAP that takes into account the Strategic Plan for Biodiversity.

Parties also have to submit **national reports** every four years in which they set out their measures for implementing the CBD and their effectiveness. The 6th National Report was due by the end of 2018.⁴⁶⁶ Neither the COPs reporting guidelines nor the resource manual refer to mining activities.⁴⁶⁷ However, the “technical reporting guidance”⁴⁶⁸ developed by the UNEP contain several questions that also address mining.

The CBD does not have a formal and mandatory mechanism for **reviewing** the NBSAP, the national reports, or generally whether the parties comply with their obligations, or for following up on the information provided in these documents. Following a pilot phase in 2017-2018, COP14 decided to include a voluntary peer review as an element of the multidimensional review approach. It also requested the Executive Secretary to develop “options to enhance review mechanisms”.⁴⁶⁹

According to one assessment of NBSAPs, 35% of NBSAPs include planned actions on mining in order to **mainstream** biodiversity into the mining sector, of which only one is counted specifically for metals

⁴⁶² CBD decision 14/3.

⁴⁶³ <https://www.cbd.int/nbsap/about/latest/default.shtml>.

⁴⁶⁴ See overview at <https://www.cbd.int/nbsap/guidance.shtml>.

⁴⁶⁵ CBD Decision XIII/1, para. 11.

⁴⁶⁶ CBD decision XIII/26, para. 27.

⁴⁶⁷ For the reporting guidelines see CBD decision XIII/27, annex; the resource manual is available at <https://www.cbd.int/nr6/default.shtml>.

⁴⁶⁸ Available at <https://www.cbd.int/nr6/default.shtml>. Apparently it was prepared by the CBD Secretariat, UNEP and UNDP.

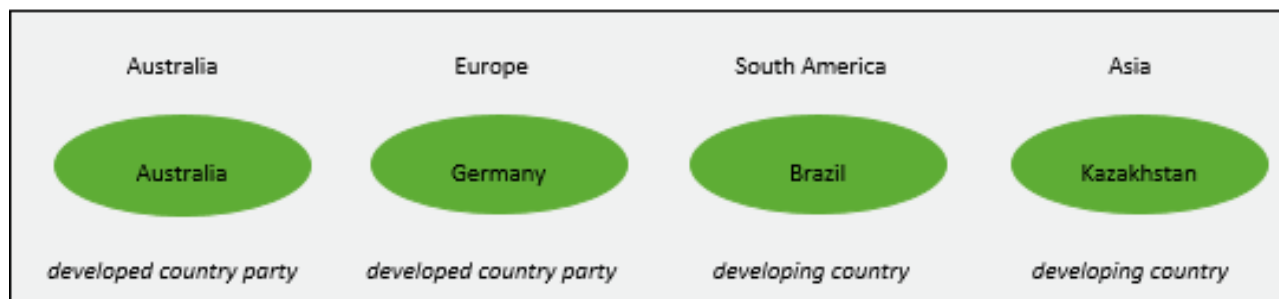
⁴⁶⁹ Decision 14/29 “Review mechanisms” of 30 November 2018, CBD/COP/DEC/14/29, <https://www.cbd.int/nbsap/vpr/default.shtml>. The webpage also contains a link to the notification from the Executive Secretary of 3 May 2018 asking for parties to participate.

and gems.⁴⁷⁰ The CBD also has a Business and Biodiversity Platform with an online database of tools and mechanisms for mainstreaming approaches. However, there is no entry for the mining sector for any of the selected countries.⁴⁷¹

Following a 2016 COP decision on mainstreaming biodiversity in certain sectors,⁴⁷² in 2017 the CBD's Subsidiary Body on Scientific, Technical and Technological Advice recommended a decision on mainstreaming in other sectors including mining. In an example of inter-institutional division of labour, the SBSTTA invited the International Resource Panel to address impacts on biodiversity and ecosystem functions and services in its assessment on mineral resource governance.⁴⁷³ In addition, the CBD Executive Secretary issued a thematic note on "Mainstreaming of biodiversity in the energy and mining sector", which provides an overview of these sectors, existing and potential approaches to mainstreaming, and opportunities and potential actions.⁴⁷⁴ In 2018, COP14 adopted a **decision on mainstreaming** with regard to the energy and mining, infrastructure, manufacturing and processing sectors.⁴⁷⁵ It recognises that these sectors have potential impacts on biodiversity which may threaten the provision of vital ecosystem functions and services. While the decision is a catch-all compilation of areas for mainstreaming, at least two noteworthy aspects stand out: First, with regard to action by the state parties, the decision emphasises the overarching levels of strategic and spatial planning levels and economy and sector-wide policies. Second, the decision repeatedly stresses the importance of mainstreaming biodiversity in finance and investment decision-making. The decision also calls upon business to use a revised "typology" of actions for reporting on biodiversity-related business actions, prepared by the Secretariat.⁴⁷⁶ The decision also established a long-term strategic approach for mainstreaming biodiversity and an Informal Advisory Group on Mainstreaming of Biodiversity.

Extraction of minerals in NBSAPs of selected countries

Figure 1: Overview of the countries chosen for the CBC implementation analysis



Source: Own figure, Ecologic Institute

Australia

Australia submitted its Biodiversity Conservation Strategy 2010-2030 as its second NBSAP in 2011.

⁴⁷⁰ UNDP (2017), p. 4, 9, 19.

⁴⁷¹ <https://www.cbd.int/business/resources/tools.shtml>.

⁴⁷² CBD decision XIII/3, para. 103.

⁴⁷³ SBSTTA recommendation XXI/4 of 14.12.2017, CBD/SBSTTA/REC/XXI/4, para 9 -draft decision para. 1.

⁴⁷⁴ CBD SBI doc. CBD/SBI/2/4/ADD3 of 26 May 2018.

⁴⁷⁵ Decision 14/3, "Mainstreaming of biodiversity in the energy and mining, infrastructure, manufacturing and processing sectors" of 30 November 2018, CBD/COP/DEC/14/3.

⁴⁷⁶ CBD/SBI/2/4/Add.2 of 20 May 2017.

The mining sector plays an important role in Australia's economy. According to the industry association "Minerals Council of Australia", the minerals industry is the fourth largest contributor to Australia's Gross Domestic Product and the country's largest export earner.⁴⁷⁷

The NBSPA mentions mining as having a direct impact on biodiversity. While the NBSAP aims at mainstreaming biodiversity also into the extractive industry, the target is quantified but quite general: Australia sought to achieve, by 2015, a "25% increase in the number of Australians and public and private organisations who participate in biodiversity conservation activities." The corresponding action relevant for the mining industry is to "incorporate information and approaches to meeting biodiversity responsibilities into corporate planning and annual reporting guidelines".⁴⁷⁸

Target 9 states that by 2015, all jurisdictions would review relevant legislation, policies and programs to maximise alignment with Australia's Biodiversity Conservation Strategy.

The NRMCC will monitor the implementation of the Strategy and formally review it every five years with the advice of an independent panel.⁴⁷⁹

The first review found, inter alia, that alignment of the Strategy with the Convention on Biological Diversity, and other related international obligations could be enhanced. The timing of the Strategy's release was not ideal as it preceded the adoption of the Convention's Strategic Plan, making its implementation through the Strategy challenging. The Strategy could more comprehensively align with the Convention's Strategic Plan and be adaptable to evolving themes and priorities.⁴⁸⁰

In 2016, Australian State and Territory Environment Ministers agreed to revise 'Australia's Biodiversity Conservation Strategy: 2010 – 2030' based on the findings of a review into the first five years of the Strategy's implementation. During 2017 a working group of officials from Australian state and territory governments, and the Australian Local Government Association has worked to prepare a revised Strategy.⁴⁸¹

The consultation on the draft revised Strategy, "Australia's Strategy for Nature 2018-2030: Australia's biodiversity conservation strategy and action inventory", closed on 16 March 2018.⁴⁸²

Germany

Germany ratified the CBD in 1993 and submitted its revised NBSAP in 2016.⁴⁸³ It is a translation of its existing internal Nature Conservation Action Programme 2020, which is an update of its National Strategy on Biological Diversity of 2007. The revised NBSAP prioritised the CBD Strategic Plan targets.⁴⁸⁴

Mining is noticeably absent from Germany's NBSAP, although there are still mining activities mainly for coal, and the national report acknowledges that extraction of mineral resources and fossil fuels results in loss of habitats for plant and animal species.⁴⁸⁵ "Post-mining landscapes" are mentioned in passing as possible areas to increase wilderness areas.⁴⁸⁶ The fifth national report notes that legisla-

⁴⁷⁷ Minerals Council of Australia, Submission on the draft Australia's Strategy for Nature 2018 – 2030, 23.03.2018, <http://www.environment.gov.au/biodiversity/conservation/strategy/draft-revision>.

⁴⁷⁸ Australia (2010), p. 55.

⁴⁷⁹ Australia (2010), p. 64.

⁴⁸⁰ Department of Environment and Energy (2016): Report on the Review of the first five years of Australia's Biodiversity Conservation Strategy, at 64, available at <http://www.environment.gov.au/biodiversity/publications/australias-biodiversity-conservation-strategy-five-year-review>.

⁴⁸¹ <http://lgaq.asn.au/-/australia-s-biodiversity-conservation-strategy>.

⁴⁸² <http://www.environment.gov.au/biodiversity/conservation/strategy/draft-revision>.

⁴⁸³ Germany (2015).

⁴⁸⁴ Germany (2015), p. 3.

⁴⁸⁵ Germany (2014), p. 87.

⁴⁸⁶ Germany (2015), p. 9.

tion requires land to be re-cultivated or renatured after extraction ended. In terms of action and planning, it refers in general terms to increasing resource efficiency, as set out in the German government's Raw Materials Strategy of 2010.⁴⁸⁷

The NBSAP's chapter on international responsibility does not mention the mining sector. The fifth national report acknowledges Germany's responsibility for the impacts of its resource consumption in the producing country. It refers to envisaged bilateral "raw materials partnerships" as a "new form of foreign trade cooperation".⁴⁸⁸

Brazil

Brazil has been a party to the CBD since 1994. It submitted its third NBSAP in August 2016 for the period 2016-2020. It has not reported on its implementation yet, as its most recent National Report, NR5, was submitted in February 2015.

Brazil notes the important role of mineral extraction in the national economy, and the increasing demand for natural resources and potential conflicting interests among sectors regarding the use of these resources.⁴⁸⁹ Brazil's NBSAP 2016-2020 is highly detailed with extensive background data. For instance, for Cerrado, one of Brazil's biomes, Brazil produced a map of land uses, according to which 0.01% is classified as "Mining".⁴⁹⁰ The NBSAP also contains an extensive and detailed list of targets and related actions, actors and timetables. Mining is mostly mentioned together with other relevant sectors, e.g. when the NBSAP defines the action of implementing the relevant chapters of the National Climate Change Adaptation Plan.⁴⁹¹ While the NBSAP counts 22 targets specifically relating to promoting sustainable management practices in extractive industries,⁴⁹² only a handful of actions that are listed to achieve the targets set by the NBSAP appear to specifically relate to mining. For instance, Brazil intends to implement an "independent technical panel to promote scientific assessments of mining activities in Brazil" in order to promote best practices, to be carried out by IUCN.⁴⁹³ Brazil also intends to make available to users a spatial analysis online tool focusing on mining ventures, together with information on the relevant environmental attributes, vulnerabilities, legal restrictions, potential, suitability, and socio-environmental costs for the implementation of ventures.⁴⁹⁴ Other actions relate to, inter alia, researching the impacts of mining on fish fauna through the dredging of rivers.⁴⁹⁵ There are also several actions relating to small-scale extractive activities (not only of minerals), the health of extractive workers and to capacity building.⁴⁹⁶ According to the fifth National Report, Brazil also implements a national Low Carbon Mining Plan.⁴⁹⁷

The NR5 provides information on implementation through legal instruments such as "Ecological-Economic Zoning" (ZEE), a landscape-scale planning and management tool under the National Environment Policy. All Brazilian states have to produce a ZEE within five years and the NR5 provides an overview on the status.⁴⁹⁸

⁴⁸⁷ Germany (2014), p. 87.

⁴⁸⁸ Germany (2014), p. 87.

⁴⁸⁹ Brazil (2015), p. 133.

⁴⁹⁰ Brazil (2016), p. 39.

⁴⁹¹ Brazil (2016), p. 236.

⁴⁹² Brazil (2016), p. 175.

⁴⁹³ Brazil (2016), p. 173.

⁴⁹⁴ Brazil (2016), p. 268.

⁴⁹⁵ Brazil (2016), p. 185,

⁴⁹⁶ See e.g. Brazil (2015), p. 187; Brazil (2016), p. 158, 187, 252.

⁴⁹⁷ Brazil (2015), p. 99.

⁴⁹⁸ Brazil (2014), p. 133-135.

Kazakhstan

Kazakhstan has been a party to the CBD since 1994. While it has submitted five national reports, with NR5 in 2014, the only NBSAP it submitted was in 2001. Kazakhstan's NR5 notes that its economy relies heavily on natural resources, with revenues constituting about half of the budget revenues and more than 70 % of exports.⁴⁹⁹ The mining industry was "the basis of the economy". In the 5 years prior to the report, the area of oil and gas production, uranium mines etc. "drastically extended" in certain parts of the country, entailing "constantly rising pressure on ecosystems".⁵⁰⁰ Yet NR5 does not contain any targets or actions specifically relating to mining.⁵⁰¹ It concludes that there was an urgent need to adopt a new NBSAP.

Assessment

Coherence with other international treaties and policies: According to Dupuy and Viñuales, "[c]onservation and management of biodiversity requires the protection of the species and habitats that make this diversity possible".⁵⁰² Therefore the CBD is considered as "a hub that provides a common basis for many [...] instruments for the protection of species and spaces."⁵⁰³ While some of these instruments protect single species or group of species from excessive exploitation, e.g. whales⁵⁰⁴, other treaties protecting wildlife introduce protective techniques and approaches. The most important ones, besides the CBD, are:⁵⁰⁵ the Ramsar Convention⁵⁰⁶, the Word Heritage Convention⁵⁰⁷, CITES⁵⁰⁸, and the Bonn Convention⁵⁰⁹. While none of these treaties deal with biological diversity as such, Part XII of the UNCLOS⁵¹⁰ comprises protection of ecosystems and conservation of species of marine life. Art. 22 (2) CBD requires parties to implement the CBD regarding the marine environment "consistently with the rights and obligations of States under the law of the sea". While this provision ensures that UNCLOS will normally prevail⁵¹¹, the CBD also applies to marine biodiversity and "does not give blanket priority to UNCLOS":⁵¹² Art. 22 (1) CBD clarifies that existing treaty rights and obligations are not affected by the CBD "except where the exercise of those rights and obligations would cause serious damage or threat to biological diversity". While in practice, regulation of marine biodiversity depends mainly on the parties to UNCLOS,⁵¹³ "a coherent and comprehensive understanding of the present law requires consideration of both treaties".⁵¹⁴ In 2017 the UN General Assembly mandated negotiations towards a treaty

⁴⁹⁹ Kazakhstan (2014), p. 58.

⁵⁰⁰ Kazakhstan (2014), p. 9, 34, 55.

⁵⁰¹ Cf. Kazakhstan (2014), p. 69-70.

⁵⁰² Dupuy and Viñuales (2015) at 187.

⁵⁰³ Ibid.

⁵⁰⁴ International Convention for the Regulation of Whaling, 2 December 1946, in force 10 October 1948, United Nations, Treaty Series, vol. 161, p. 72.

⁵⁰⁵ Birnie et al (2009) at 652. The CBD's website also mentions the 2004 International Treaty on Plant Genetic Resources for Food and Agriculture, and the 1952 International Plant Protection Convention (IPPC), <https://www.cbd.int/brc/>.

⁵⁰⁶ Convention on Wetlands of International Importance (Ramsar Convention), 2 February 1971, in force since 21 December 1975 United Nations, Treaty Series, vol. 996, p. 245.

⁵⁰⁷ Convention Concerning the Protection of the World Cultural and Natural Heritage, 16 November 1972, in force since 17 December 1975, United Nations, Treaty Series, vol. 1037, p. 151.

⁵⁰⁸ Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 3 March 1973, in force since 1 July 1975, United Nations, Treaty Series, vol. 993, p. 243.

⁵⁰⁹ Convention on the Conservation of Migratory Species of Wild Animals Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1973, entered into force on 1 July 1975 (CMS) United Nations, Treaty Series, vol. 1651, p. 355.

⁵¹⁰ United Nations Convention on the Law of the Sea, 10 December 1982, in force since 16 November 1994, UN Doc. I-31363.

⁵¹¹ Birnie et al (2009) at 750.

⁵¹² Birnie et al (2009) at 750. But see Pring (1999) at 12.

⁵¹³ Birnie et al (2009) at 751.

⁵¹⁴ Birnie et al (2009) at 751.

on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, which are supposed to conclude in the first half of 2020.⁵¹⁵

The biodiversity-related conventions cooperate with each other through memoranda of cooperation, joint work programmes and a Biodiversity Liaison Group.⁵¹⁶

Political weight of the instrument: The CBD is one of the most important conventions on wildlife protection and the only one to address biodiversity as such. It is a global treaty with 196 parties including all important players but the USA, and is thus one of the most widely ratified of all environmental conventions.⁵¹⁷

Consideration of small and medium-scale companies: The CBD does not specifically regulate ASGM activities. However, COP 10 decision X/21 on business engagement expressly includes small and medium sized enterprises (SMSEs), e.g. when encouraging business and the private sector to share and adopt lessons learned between and among business and enterprises, or when requesting the dissemination of tools and examples of best practice for encouraging the participation of business.⁵¹⁸ While there does not appear to be an inevitable conflict between mining and biodiversity, as some initiatives of larger mining companies show⁵¹⁹, it remains challenging, especially for smaller companies, to adopt practices compatible with biodiversity preservation.⁵²⁰ One way of addressing this could be implementing the COP's mainstreaming decision of 2018 (see below non effectiveness).

Effectiveness: The CBD is a framework convention, the success of which largely depends on the willingness of the parties to fulfil their obligations to adapt their national legislations and to cooperate. In addition, many CBD provisions use qualifiers, requiring Parties to meet obligations only "as far as possible and as appropriate" or "in accordance with its particular conditions and capacity."⁵²¹ Thus, their specific content is considerably softened. For example, under Art. 14 "the parties may well escape any form of EIA, particularly when the possible risks may be long-term and difficult to predict".⁵²² Nonetheless, the CBD "creates a firm framework in which the COP can be expected to develop more detailed, concrete standards for ecosystem preservation as time goes on".⁵²³ Through a multitude of programmes, the CBD has developed important normative activity.⁵²⁴ However, more state practice is needed to define the CBD's vague notions.⁵²⁵

The CBD has provided extensive guidance on what parties should do in order to implement its provisions and to prepare NBSAPs. Similar to the CCD, the NBSAPs could be a useful tool for parties to define and implement policies. However, there are no or weak mechanisms for revising NBSAPs and for following up on implementation, although there is pressure exercised through COP decisions. It remains to be seen to what extent the voluntary peer review of NBSAP revision and implementation can prove to be a meaningful exercise.

Mining has so far hardly been addressed at the CBD level. The NBSAPs examined contain very little on targets or actions specifically on mining. This might change with the focus on mainstreaming that is outlined in the 2018 COP decision on mainstreaming in the mining and other sectors. It remains to be

⁵¹⁵ See <https://www.un.org/bbnj/>.

⁵¹⁶ <https://www.cbd.int/brc/>.

⁵¹⁷ See Birnie et al (2009) at 612.

⁵¹⁸ COP 10 decision X/21, 2 (d), 3 (e).

⁵¹⁹ See the case studies in Starke (2004): Integrating mining and biodiversity conservation: Case studies from around the world, Gland and London: IUCN and ICMM.

⁵²⁰ Koziell (2004) at 3.

⁵²¹ Birnie et al (2009) at 617.

⁵²² Birnie et al (2009) at 621.

⁵²³ Pring (1999) at 12.

⁵²⁴ Dupuy and Viñuales (2015) at 189 with reference to the CBD's website on principles, guidelines and tools at <https://www.cbd.int/guidelines/> (last accessed on 28 February 2019).

⁵²⁵ Birnie et al (2009) at 649.

seen whether and how the CBD will provide more guidance specifically on mining. The development of “guidelines to support efforts at the national level” could be a useful first step. The emphasis in the decision on targeting financing and investment decisions as well as financial risk disclosure is a particularly interesting approach.

Mining activities for abiotic resources clearly threaten biodiversity, since even sites protected under the World Heritage Convention are under pressure from mining.⁵²⁶ Important instruments to protect biodiversity from the impacts of mining are in-situ conservation measures, in particular the establishment of protected areas, and environmental impact assessments. However, growing development pressure makes protected areas vulnerable to pressures from commercial interests or local inhabitants.⁵²⁷

Political opportunities and good practice examples:

- ▶ Good practice: COP 14 (November 2018) decision on mainstreaming biodiversity in energy and mining, manufacturing and processing, although it needs follow-up and implementation
- ▶ Good practice: large involvement of stakeholders as observers
- ▶ Good practice: Dialogue between nature conservation organisations and mining industry

2.1.2.9 Convention on Environmental Impact Assessment in a Transboundary Context

Table 12: Convention on Environmental Impact Assessment in a Transboundary Context (adoption: 25 February 1991; in force: 10 September 1997)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Environmentally sound and sustainable development; international cooperation in assessing environmental impacts in a transboundary context
Parties	45
Territorial scope	Originally restricted to countries within the UNECE region; since 2014 accession by all UN Member states allowed
Resources covered	In particular oil, gas, iron, steel, asbestos, gas, metal ores, coal
Stage of the value chain	In particular resource extraction, processing, transport and storage
Steering tool	Transboundary environmental impact assessment
Assessment	+

Summary

The Espoo Convention aims to prevent, reduce and control significant adverse environmental impacts in a transboundary context. To this end, it establishes an obligation for its parties to provide for a transboundary environmental impact assessment (EIA) with regard to certain activities that include groundwater abstraction, mining, operation of oil refineries, initial smelting of cast iron and the construction of pipelines for the transport of oil or gas. The Espoo Convention is therefore relevant for extraction, processing, transport and storage of various resources. However, the EIA procedure is required only in case the activities are likely to cause significant adverse transboundary impacts.

⁵²⁶ Phillips (2001) at 11. See also the analysis on the World Heritage Convention at Section 2.1.2.6.

⁵²⁷ Koziell (2004) at 2.

The Espoo Convention has been ratified by various countries from Europe and Central Asia, as well as the European Union and Canada. It has been developed based on experiences in European and North American states with national environmental impact assessment procedures. Since its adoption, the Espoo Convention has been used as a best practice example in the negotiation of new regional agreements. In comparison with other international treaties that require environmental impact assessment procedures for certain activities or for certain impacts, the Espoo Convention is the only international instrument that details the procedural steps.

Overview

Form and legal status: The Espoo Convention⁵²⁸ was adopted on 25 February 1991 and entered into force on 10 September 1997. It has 45 parties especially from Europe and Central Asia. The first amendment, which allowed accession by non-UNECE parties, entered into force in 2014. The second amendment⁵²⁹ entered into force on 23 October 2017 and currently has 31 parties. It introduced a compliance procedure and amended the list of activities subject to EIA.

Objectives: The Espoo Conventions aims at ensuring environmentally sound and sustainable development as well as enhancing international cooperation in assessing environmental impacts in particular in a transboundary context. It therefore focuses on harm prevention and cooperation.⁵³⁰

Territorial scope: Originally, the Espoo Convention was only open to countries and regional economic integration organizations that are members of the United Nations Economic Commission for Europe (UNECE) or have a consultative status. The first Amendment⁵³¹ opened the Espoo Convention to accession by all UN member states. However, the Meeting of the Parties is prohibited to consider or approve such a request for accession until the first Amendment becomes operational (Article 17.3). Currently, there are thirteen ratifications missing.⁵³²

Type of steering tool: Parties to the Espoo Convention have to require environmental impact assessments for certain activities as a procedural instrument to facilitate cooperation and participation in the transboundary context. The Convention also details mandatory procedural steps and elements that parties need to follow when conducting the environmental impact assessment.

Links to extraction, processing and transport of resources

Resources covered: The scope of the Espoo Convention is not determined by resources, but by activities that are likely to cause significant adverse transboundary impacts. Some of the activities listed in Appendix I relate to specific resources. These are oil (crude oil refineries – No 1), gas (installations for the gasification – No 1), iron and steel (installation for initial smelting – No 4), asbestos (installations for the extraction and the processing and transformation – No 5), oil and gas (large-diameter pipelines for transport – No 8), and metal ores and coal (major quarries, mining, on-site extraction and processing – No 14). The Espoo Convention can also cover other resources in case the associated activities are likely to cause a significant transboundary impact and the concerned parties agree (Article 2.5 and Appendix III).

Environmental and social impacts covered: The Espoo Convention defines the terms impact and transboundary impact. Accordingly, effects caused by a listed activity on the environment including human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other

⁵²⁸ Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 25 February 1991, in force 10 September 1997, 1989 United Nations, Treaty Series (1997), 309.

⁵²⁹ Decision III/7, Second Amendment to the Espoo Convention, Cavtat, 1-4 June 2004, ECE/MP.EIA/6, Annex VII, p. 93.

⁵³⁰ Marsden (2016) at 145.

⁵³¹ Decision II/14, Amendment to the Espoo Convention, Sophia, 26/27 February 2001, in force 26 August 2014, ECE/MP.EIA/4, Annex XIV, p. 144.

⁵³² See: <https://www.unece.org/env/eia/about/amendment.html> (last accessed on 28 February 2019).

physical structures or the interaction among these factors are covered. Effects on cultural heritage or socio-economic conditions resulting from alterations to those factors are also included in the definition. The impact is transboundary if its origin is an activity in one of the parties and it is likely to cause significant effects in another Party. The Convention's definition of transboundary impact explicitly excludes impacts of an exclusively global nature and concentrates on transboundary impacts with a local or sub-regional character.⁵³³

Steps of the value chain covered: The Espoo Convention primarily applies to activities listed in Appendix I that are likely to cause a significant adverse transboundary impact. These activities fall into various categories such as resource extraction, processing, transport and storage.

For **resource extraction**, these activities include “installations for the extraction of asbestos and the processing and transformation of asbestos and products containing asbestos” (No 5) and generally “major quarries, mining, on-site extraction and processing of metal ores or coal” (No 14). The list also includes “extraction of petroleum and natural gas for commercial purposes” above a certain threshold. It mentions “groundwater abstraction activities” (No 12) and “deforestation of large areas” (No 16), which can be associated with resource extraction.

With regard to **processing**, the activities cover “crude oil refineries” and “installations for the gasification and liquefaction of 500 metric tons or more of coal or bituminous shale per day” (No 1) and “major installations for the initial smelting of cast-iron and steel and for the production of non-ferrous metals” (No 4).

For **transport** of resources “large-diameter pipelines for the transport of oil, gas or chemicals” (No 8) are covered and with respect to **storage** “major storage facilities for petroleum, petrochemicals and chemical products” (No 16).

The Espoo Convention can also cover activities not listed in the Annex that are likely to cause a significant transboundary impact in case the concerned parties agree (Article 2.5 and Appendix III).

Content

Relevant obligations for parties: As a general obligation, the Espoo Convention requires the parties to take all appropriate and effective measures to prevent, reduce and control significant adverse *transboundary* environmental impacts from proposed activities (Article 2.1). To this end, the parties have to take the necessary legal, administrative or other measures to implement the Espoo Convention and especially to establish an environmental impact assessment procedure (Article 2.2). The Espoo Convention prescribes mandatory steps for the environmental impact assessment procedure. It does not address EIA for domestic activities without potential transboundary impacts.

The mandatory steps include the notification of all parties possibly affected by a proposed activity and the transmittal of more detailed information to those parties that want to participate in the environmental impact assessment procedure. Based on information provided by the affected party and comments received from the public in areas likely to be affected, the party of origin prepares the environmental impact assessment documentation that is the basis for a second stage of public participation and consultation with the affected party.

The party of origin has to ensure that the final decision on the proposed activity takes due account of the outcome of the environmental impact assessment, including the environmental impact assessment documentation as well as the comments received in the stages of public participation and consultation between the parties (Article 6.1). It has to notify affected parties of the decision (Article 6.2).

⁵³³ Schrage (2008) at 32.

Institutions, reviews and decision-making

Institutions: The institutional arrangement of the Espoo Convention resembles that under modern MEAs. There are some differences as the Espoo Convention is under the umbrella of the UNECE. For instance, functions of the Secretariat are assigned to the Executive Secretariat of the UNECE. With respect to compliance, an Implementation Committee was established in 2001⁵³⁴ but might be superseded following the introduction of a compliance procedure by the entry into force of the second amendment in 2017.⁵³⁵

Reporting: Originally, the Espoo Convention did not provide for a regular reporting of the parties. The second amendment, which came into force in October 2017, introduced this requirement. The Meeting of the Parties has to decide on the frequency and the information to be included in the reports (Article 14bis).

Evaluation and review: The Espoo Convention does not establish a detailed mechanism to evaluate the overall effectiveness of its provisions on a regular basis. However, the Meeting of the Parties has the mandate and duty to keep under continuous review the implementation of the Convention, in particular to review the policies and methodological approaches to environmental impact assessment by the parties to further improve the procedures in a transboundary context (Article 11 (2) (a)). The Espoo Convention also provides for a mechanism for amendments that has been used twice.

Compliance procedures, remedies and dispute settlement procedures: Originally, the Espoo Convention did not provide for compliance procedures. The Implementation Committee that was established by the Meeting of the Parties in 2001⁵³⁶ could be superseded by the new compliance procedure required by the second amendment which entered into force in October 2017. It requires parties to review compliance based on regular reports by parties and to adopt a “non-adversarial and assistance-oriented” compliance procedure (Article 14bis).⁵³⁷

The Espoo Convention contains a provision on dispute settlement, suggesting using either the ICJ or an arbitration procedure set out in detail in the Annex VII.

Stakeholder and public involvement: The Espoo Convention does not provide for the involvement of stakeholders or the public in decision making procedures of its institutions. However, public participation is an important element of the procedure for environmental impact assessment and therefore in the implementation of the Convention.⁵³⁸ In 2004, the Meeting of the Parties to the Convention adopted a Guidance on Public Participation in Environmental Impact Assessment in a Transboundary Context⁵³⁹ that provides additional information.

The public is defined as “one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organizations or groups” (Article 1). Hence, the public is understood to comprise the broad public and also other bodies worth consulting, including specialists and non-governmental organizations.⁵⁴⁰

The standards set by the Espoo Convention for public participation during a transboundary environmental impact assessment procedure include the equivalence of public participation in the party of

⁵³⁴ Decision II/4, Review of Compliance, 26/27 February 2001, ECE/MP.EIA/4, Annex IV at 72; revised as Decision III/2, Review of Compliance, 1-4 June 2004, Cavtat, 1-4 June 2004, ECE/MP.EIA/6, Annex II, p. 49.

⁵³⁵ Decision III/7, Second Amendment to the Espoo Convention, Cavtat, 1-4 June 2004, ECE/MP.EIA/6, Annex VII, p. 93.

⁵³⁶ Decision II/4, Review of Compliance, 26/27 February 2001, ECE/MP.EIA/4, Annex IV at 72; revised as Decision III/2, Review of Compliance, 1-4 June 2004, Cavtat, 1-4 June 2004, ECE/MP.EIA/6, Annex II, p. 49.

⁵³⁷ Decision III/7, Second Amendment to the Espoo Convention, Cavtat, 1-4 June 2004, ECE/MP.EIA/6, Annex VII, p. 93.

⁵³⁸ Finnish Environment Institute (2003), p. 21.

⁵³⁹ Decision III/8, Guidance on Public Participation in Environmental Impact Assessment in a Transboundary Context, ECE/MP.EIA/7, 1-4 June 2004.

⁵⁴⁰ Finnish Environment Institute (2003), p. 21.

origin and the affected party, the opportunity to provide comments first on the proposed activity and second on the environmental impact assessment documentation, and the obligation for the competent authority to take due account of the comments received.

Assessment

Coherence with other international treaties and policies: There are several other international treaties that address transboundary impacts, public participation or environmental impact assessment.

Other treaties for **transboundary impacts** include the 1979 Convention on Long-range Transboundary Air Pollution⁵⁴¹, the 1986 Convention on Early Notification of a Nuclear Accident⁵⁴² and the 1989 Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal⁵⁴³. Specifically under the UNECE, the 1992 Convention on the Transboundary Effects of Industrial Accidents⁵⁴⁴ and the 1992 Convention of the Protection and Use of Transboundary Watercourses and International Lakes⁵⁴⁵ have been developed.

For **public participation**, the 1998 Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters⁵⁴⁶ has been adopted under the UNECE. It not only requires parties to provide for public participation in respect of decisions about specific activities, but also gives members of the public access to justice to challenge the decision taken. A transboundary context is not necessary.

Provisions on **environmental impact assessment** have been included for instance in the 1992 Convention on Biodiversity.⁵⁴⁷ They target the effects of projects on biological diversity, require public participation and encourage a transboundary assessment. Also, the 1991 Protocol on Environmental Protection on the Antarctic Treaty⁵⁴⁸ includes obligations on environmental impact assessment for human activities. Similarly, the United Nations Convention on the Law of the Sea⁵⁴⁹ requires countries to conduct an environmental impact assessment where planned activities under their control may cause significant impacts to the marine environment.

Political weight of the instrument: The Espoo Convention is the leading instrument in the field of transboundary environmental impact assessment; it has been ratified by over forty countries from Europe and Central Asia, as well as Canada and the European Union.⁵⁵⁰ Russia and the United States have signed the Convention but not yet ratified it. Before the Espoo Convention was adopted, environmental impact assessment was already to a certain extent implemented in some countries in North America

⁵⁴¹ Convention on Long-range Transboundary Air Pollution, Geneva, 13 November 1979, in force 16 March 1983, 18 *International Legal Materials* (1979), 1442.

⁵⁴² Convention on Early Notification of a Nuclear Accident, Vienna, 26 September 1986, in force 27 October 1986, 25 *International Legal Materials* (1986), 1370.

⁵⁴³ Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 22 March 1989, in force 5 May 1992, 28 *International Legal Materials* (1989), 657.

⁵⁴⁴ Convention on the Transboundary Effects of Industrial Accidents, Helsinki, 17 March 1992, in force 19 April 2000, 31 *International Legal Materials* (1992), 1330.

⁵⁴⁵ Convention on the Protection of Transboundary Watercourses and International Lakes, Helsinki, 17 March 1992, in force 6 October 1996, 1936 United Nations, Treaty Series (1996), 269.

⁵⁴⁶ Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, 25 June 1998, in force 30 October 2001, 38 *International Legal Materials* (1999), 517.

⁵⁴⁷ Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, in force 29 December 1993, 31 *International Legal Materials* (1992), 818.

⁵⁴⁸ Protocol on Environmental Protection to the Antarctic Treaty, Madrid, 4 October 1991, in force 14 January 1998, 30 *International Legal Materials* (1991), 1455.

⁵⁴⁹ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982, in force 16 November 1994, 21 *International Legal Materials* (1982), 1261.

⁵⁵⁰ Kersten (2009) at 178.

and Europe. Hence the Convention could build on experience and add the aspect of transboundary impacts.⁵⁵¹ Since its adoption, other countries have started drafting similar regional treaties – for example countries in North America and the riparian countries to the Caspian Sea.⁵⁵² The Espoo Convention allows for parties to agree further details in additional bilateral treaties, and some countries have used this option.⁵⁵³ As the Espoo Convention is now open for accession by all member states to the United Nations, more parties might accede and increase its political weight.

The political weight of the instrument might be less in light of the ICJ's finding that it is a requirement under *general international law* to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource.⁵⁵⁴ On the other hand, the Espoo Convention might have been instrumental in the ICJ coming to its conclusion in the first place. It may also have political weight in shaping the content of the general obligation through providing best practice - although the ICJ has so far held that in absence of other elements, it is for each state to determine the specific content of the EIA.⁵⁵⁵

Consideration of small and medium-scale companies: The Espoo Convention does not establish any obligations for private actors, but addresses state parties and competent authorities in state parties. However, there is an indirect affect as the activities listed in Appendix I that require a transboundary environmental impact assessment will usually be carried out by private actors. There is no explicit consideration of small and medium-scale companies. Whether they will be affected will depend on whether their activities are likely to be listed in Appendix I and have the capacity to cause a significant adverse transboundary impact.

Effectiveness: The Espoo Convention has proven an effective instrument for transboundary environmental impact assessment among its parties and has set an example for negotiations in other regions. It may have contributed to paving the way for the International Court of Justice's finding of 2010 that there is a general obligation to conduct a transboundary environmental impact assessment which has a customary grounding.⁵⁵⁶ Some parties to the Espoo Convention entered into bilateral agreements to enhance the level of detail for transboundary environmental impact assessment. Public participation as provided for in the Espoo Convention and the Aarhus Convention can improve the quality of environmental impact assessments.

Political opportunities and good practice examples:

- ▶ The Espoo Convention has been opened for accession by all Member states to the United Nations and could become an international instrument for transboundary environmental impact assessment.
- ▶ Appendix I listing the activities that trigger environmental impact assessment procedures has already been revised once to include additional activities.
- ▶ While other international treaties require an environmental impact assessment for certain activities or to prevent certain impacts, the Espoo Convention is the only international instrument that details the procedure.
- ▶ The broad definition of relevant impacts could be used as a best practice example.

⁵⁵¹ Schrage (2008) at 29 et seq.

⁵⁵² Kersten (2009) at 178.

⁵⁵³ Kersten (2009) at 179.

⁵⁵⁴ *Pulp Mills on the River Uruguay (Argentina/Uruguay)*, Judgment, 20 April 2010, *ICJ Reports* (2010), at 14, para 204; *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica/Nicaragua)*, Judgment, 16 December 2015, *ICJ Reports* (2015), at 665, para 104.

⁵⁵⁵ *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica/Nicaragua)*, Judgment, 16 December 2015, *ICJ Reports* (2015), at 665, para 104.

⁵⁵⁶ *Pulp Mills on the River Uruguay (Argentina/Uruguay)*, Judgment, 20 April 2010, *ICJ Reports* (2010), at 14, para 204.

- Since the ICJ has stated a general obligation to undertake an environmental impact assessment in a transboundary context, it remains to be seen whether the Espoo Convention may also have political weight in shaping the content of that obligation e.g. through providing best practice.

2.1.2.10 Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa

Table 13: Convention to Combat Desertification (adoption: 14 October 1994; in force: 26 December 1996)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Combat desertification; mitigate the effects of drought
Parties	196
Territorial scope	Global, but actions are directed towards drylands
Resources covered	All; no specification
Stage of the value chain	All; no specification
Steering tool	National, sub-regional and regional action programmes
Assessment	+

Summary

The United Nations Convention to Combat Desertification (UNCCD) aims to combat desertification and to mitigate the effects of drought in drylands. Achieving these objectives is associated with the rehabilitation, conservation and sustainable management of land and water resources. The Convention requires affected country parties to prepare and implement national action programmes in a participatory process including, among others, local communities. Specific quantitative targets for land conservation and provisions on measures for rehabilitation, conservation and sustainable management are missing.

For mineral extraction the Convention is relevant only insofar as the different stages affect land or water resources. It depends on the parties to what extent they include measures in their national action programmes that mitigate the effects of mining. Although most affected countries have developed such programmes, those are usually not very specific and only of low quality. Where mining has been identified as a challenge, specific targets or measures have not been determined.

Until recently, the Convention has only been of marginal importance. However, this might change in the future as the UNCCD has staked its claim to be the central legal framework for the implementation of SDG 15.3 on land degradation neutrality. Considering the vagueness of the requirements under the Convention, it is doubtful whether action programmes can be turned into an effective tool to tackle desertification and drought in general and the negative environmental and social impacts of mining in particular. Also, the territorial scope of the Convention is limited and not all challenges associated with mining could be addressed.

In addition to the following overview, the analysis of the UNCCD also includes a section on implementation.

Overview

Form and legal status: The Convention⁵⁵⁷ was adopted on 14 October 1994 and entered into force on 26 December 1996. With 196 parties it is basically universal.⁵⁵⁸

Objectives: The Convention aims to combat desertification and to mitigate the effects of drought in all countries experiencing serious drought and/or desertification, but particularly in Africa. Further objectives include the improvement of land productivity and the “rehabilitation, conservation and sustainable management of land and water resources” (Article 2).

Territorial scope: The Convention has 196 parties, which makes it basically global in scope. Although the Convention contains obligations for all parties, including those that are not affected by desertification and drought, all action to be taken is directed towards arid, semi-arid and dry sub-humid areas (referred to in this section as “drylands”). These areas cover some 40% of the world’s land area.⁵⁵⁹ An attempt to formally extend the territorial scope of the Convention beyond drylands has not been successful.⁵⁶⁰

Type of steering tool: The Convention pursues a so-called bottom-up approach with action programmes developed and implemented at the national, sub-regional and regional level as its primary instruments.⁵⁶¹ Criteria for preparing these programmes are detailed in the Convention’s five regional implementation Annexes for Africa, Asia, Latin America and the Caribbean, the Northern Mediterranean, and Central and Eastern Europe.

Since the Convention entered into force, more than 100 NAPs have been prepared by affected country parties from Africa, Asia, Latin America and the Caribbean, the Northern Mediterranean as well as Central and Eastern Europe in accordance with the specific regional requirements listed in Annex I to V. Most of these NAPs have been developed in the period between 2000 and 2004. They reflect the countries’ understanding of the challenges ahead in regard to desertification and drought and the actions required to tackle these challenges. Some of these NAPs address the extraction of minerals in drylands, either as driver for desertification and drought or as opportunity for alternative livelihood for the affected people and communities.

Links to extraction, processing and transport of resources

Resources covered: The Convention aims to combat desertification and to mitigate the effects of drought. Hence, it focuses on the conservation and sustainable use of land and water in drylands. The action programmes developed on the national, sub-regional and regional level can address all the resources located there affecting the objectives of the Convention.

Environmental and social impacts covered: The Convention covers environmental and social impacts of any activities that contribute to desertification and drought. These include primarily the resources land and water as well as living conditions of the people particularly at the community level (Article 2.2). Measures in national action programmes shall address various aspects such as power eradication, food security, demographic dynamics, sustainable agricultural practices, energy sources, and natural resources management (Article 10.4).

⁵⁵⁷ United Nation’s Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, Paris, 14 October 1994, in force 26 December 1996, 33 *International Legal Materials* (1994), 1328.

⁵⁵⁸ See <http://www2.unccd.int/status-ratification> (last accessed on 28 February 2019).

⁵⁵⁹ EMG (2011) at 22.

⁵⁶⁰ Ginzky (2016) at 19.

⁵⁶¹ Beyerlin and Marauhn (2011) at 206.

Steps of the value chain covered: The action programmes developed on the national, sub-regional and regional level can address all steps of the value chain that affect the conservation and sustainable management of land and water. Therefore, actions related to the mineral extraction or the restoration of ecosystems are possible as long as they are related to drylands. The Convention does not require affected country parties to take actions in specific sectors, nor does it provide in case parties choose to do so. Various countries, including Guyana⁵⁶², Tanzania⁵⁶³ and Ghana⁵⁶⁴ have addressed mining in their national action programmes.

Content

Relevant obligations for parties: The Convention differentiates between obligations for all parties, affected parties, affected developing parties and developed parties. Some obligations are further specified by five regional implementation annexes. In general, the obligations do not translate the goals in practice and are rather general.⁵⁶⁵ The core obligations with the most specific content are:

The overarching general obligations for all parties include the adoption of an integrated approach addressing the physical, biological and socio-economic aspects of the processes of desertification and drought, and the integration of poverty eradication into efforts to combat desertification and to mitigate the effects of drought (Article 4.2 lit. a and c). In addition, affected country parties have to direct policies and resource to combating desertification, including by giving “due priority” to desertification and allocating “adequate resources” (Article 5 lit. a). Developed country parties have to actively support developing country parties and to provide substantial financial resources (Article 6 lit. a).

The core obligation under the Convention is for affected country parties to prepare, publish and implement **national action programmes** (Articles 9, 10). These shall, among others, incorporate long-term strategies to combat desertification and to mitigate the effects of drought, and give particular attention to the implementation of preventive measures for lands that are not yet degraded or which are only slightly degraded. The regional implementation annexes provide more details on the formulation and content of the national action programme. However, there are no specific provisions on the type and manner of land use.

Institutions, reviews and decision-making

Institutions: The institutional arrangement of the Convention resembles that of other modern MEAs. The Conference of the Parties (COP) is the supreme body of the Convention that takes the decisions necessary to promote effective implementation (Article 22) and has been meeting biennially since 2001. It is supported by the Permanent Secretariat that facilitates the sessions of the COP as well as its subsidiary bodies (Article 23) and is located in Bonn. One subsidiary body is the Committee on Science and Technology (CST) that provides information and advice to the COP on scientific and technological matters relating to combating desertification and mitigating the effects of drought (Article 24). The second subsidiary body is the Committee for Review of the Implementation of the Convention (CRIC) that has been established in 2001 to assist the COP in regularly reviewing the implementation of the Convention.⁵⁶⁶

⁵⁶² Guyana's National Action Plan, December 2015, available at https://knowledge.unccd.int/sites/default/files/naps/Guyana_Aligned%2520NAP.pdf (last accessed on 28 February 2019).

⁵⁶³ Tanzania's National Action Programme, November 2014, available at <https://knowledge.unccd.int/sites/default/files/naps/NAP%2520Guidelines%2520BOOK%2520-%2520FINAL.pdf> (last accessed 28 February 2019).

⁵⁶⁴ Ghana's National Action Programme, April 2002, available at <https://knowledge.unccd.int/sites/default/files/naps/ghana-eng2002.pdf> (last accessed 28 February 2019).

⁵⁶⁵ Kannan (2014) at 157.

⁵⁶⁶ Decision 1/COP.5, Additional procedures or institutional mechanisms to assist in the review of the implementation of the Convention, ICCD/COP(5)/11/Add.1, 12 October 2001.

Reporting: As a general rule, each party has to communicate reports on the measures which it has taken for the implementation of the Convention (Article 26.1). In these reports, affected country parties have to describe the strategies and national or regional action programmes they have established to combat desertification and to mitigate the effects of drought, including information on the implementation (Article 26.2 and 3). Developed country parties have to include measures taken to assist in the preparation and implementation of national and regional action programmes in their reports (Article 26.5).

Evaluation and review: The COP regularly reviews the implementation of the Convention and the functioning of its institutional arrangements based on the reports communicated by the parties and the experience gained at the different levels of implementation (Article 22.2). Based on this review it can issue recommendations, make amendments to the Convention and adopt new annexes.

The Convention gives the Conference of the Parties the mandate to adopt procedures and institutional mechanisms to resolve questions with regard to implementation (Article 27). In 2001, the COP has established the Committee for the Review of Implementation of the Convention with the mandate to assist in regularly reviewing the implementation of the Convention.⁵⁶⁷

Compliance procedures, remedies and dispute settlement procedures: The Convention contains a provision on dispute settlement that suggests the use either of arbitration or the ICJ in case parties cannot solve their disputes through negotiation or other peaceful means of their own choice (Article 28).

Stakeholder and public involvement: The Convention takes a participative approach towards tackling desertification and drought on various levels.

At the national level, affected country parties shall develop and implement their national action programmes through participatory mechanisms ensuring the active involvement of non-governmental organizations and local populations (Article 10.2 lit f). Complementary, also support projects for the elaboration and implementation of national action programmes shall be designed, funded and implemented to allow participation at the local community level (Article 13.1 lit c). Participation also plays a crucial role in research programmes (Article 17. 1 lit. f), education and awareness (Article 19.3 lit. b), and financing (Article 21.3).

At the international level, the Conference of the Parties shall seek the cooperation of national and international non-governmental organizations (Article 22.2 lit. h). Hence, participation has been institutionalized. Also, some UNCCD delegations, particularly those from industrialized countries, admit NGOs officially to their governmental delegations in advisory capacity.⁵⁶⁸

Implementation

Framework: The Convention has been developed through decisions adopted by the Conference of the Parties (COP) that provide guidance for implementation. Relevant are especially the strategic frameworks that have been adopted in 2007 and 2017, inter alia, to guide the preparation and implementation of NAPs. Despite these efforts, the Convention has not gained considerable attention in the international community and the provision of financial support has been relatively limited. However, since the adoption of the Sustainable Development Goals (SDGs) that also determine land-related targets, the Convention's importance is increasing. While this might increase the attention the international community gives to the conservation and management of land, it will not necessarily trigger a rethinking in regard to specific activities such as mineral extraction. The COP has met annually until 2001 and on a biennial basis ever since. During the sessions, it has adopted various decisions that set the framework for implementation of the Convention. While these decisions provide further guidance, they do

⁵⁶⁷ Decision 1/COP.5, Additional procedures or institutional mechanisms to assist in the review of the implementation of the Convention, ICCD/COP(5)/11/Add.1, 12 October 2001.

⁵⁶⁸ Wissenschaftlicher Beirat der Bundesregierung Global Umweltveränderungen (WBGU) (2011) at 261.

not mention specific activities that affect land and water management such as mining. It falls within the responsibility of affected country parties to determine the activities necessary to combat desertification and drought. The COP has adopted two strategic frameworks for the implementation of the Convention, one in 2007 for the period 2008-2018⁵⁶⁹ and one in 2017 for the period 2018-2030⁵⁷⁰.

- ▶ **Period 2008-2018:** The strategic framework determined improved living conditions of affected populations, improved conditions of affected ecosystems, generation of global benefits and resource mobilization as the four strategic objectives for implementation. It also formulates five operational objectives: (1) advocacy, awareness raising and education, (2) policy framework, (3) science, technology and knowledge, (4) capacity building, and (5) financing and technology transfer. Affected country parties were urged to align their NAPs as well as other relevant implementation activities under the Convention to the strategy. Since the adoption in 2007, affected country parties have started the process of aligning their NAPs; in addition the alignment of the sub-regional (SRAPs) and regional action programmes (RAPs) has also been initiated. However, only few NAPs have been aligned and submitted.⁵⁷¹ While countries could have included activities in regard to mining in their work towards the strategic objectives, the strategic framework itself is neutral in regard to the type of actions affected country parties take.
- ▶ **Period 2018-2030:** The new strategic framework reflects recent developments – especially SDG Target 15.3 on land degradation neutrality – and adds promotion of sustainable land management, contribution to land degradation neutrality, mitigation of the effects of drought to the previous strategic objectives. It also names the mobilization of substantial and additional financial and non-financial resources to support implementation. Parties are strongly encouraged to apply and align their NAPs with the new strategic framework. Again, it is up to the affected country parties to identify the actions necessary to work towards the strategic objectives. Therefore, parties can include actions in the mining sector in case they serve the strategic objectives, but are not required to do so.

Up to now, the negative impacts of mineral extraction on water and land as well as on local communities have been hardly reflected under the UNCCD. The COP has only addressed the mining and extraction industry twice in its decisions and only in regard to its economic opportunities in drylands. Therefore, COP Decisions do not provide guidelines to mitigate the impacts of the mining sector on land and water management.

- ▶ **2001:** The COP takes note of the conclusions and recommendations an Ad Hoc Working Group that recognized the potential for private sector investment in drylands in its report naming the mining and extraction industry as one example.⁵⁷² The Ad Hoc Working Group recommended incentives for sustainable use of land resources by corporate interests and environment-friendly guidelines for the relevant economic sectors in the drylands to ensure benefits at the local level.
- ▶ **2003:** As further steps to implement the Convention and to promote private sector and economic opportunities in drylands, the COP recommends parties to take measures that increase the competitiveness of products and services in the drylands through adherence by the mining and extraction industry to codes of sustainable land use practice.⁵⁷³

Timeline for implementation and reporting: To implement the UNCCD, affected country parties mainly have to develop NAPs and to report on the implementation process. In 2007 and 2017, the COP

⁵⁶⁹ Decision 3/COP.8, The 10-year strategic plan and framework to enhance the implementation of the Convention (2008–2018), 14 September 2007, ICCD/COP(8)/16/Add.1.

⁵⁷⁰ Decision 7/COP.13, The future strategic framework of the Convention, 15 September 2017, ICCD/COP(13)/21/Add.1.

⁵⁷¹ UNCCD Evaluation Office (2015) at 6.

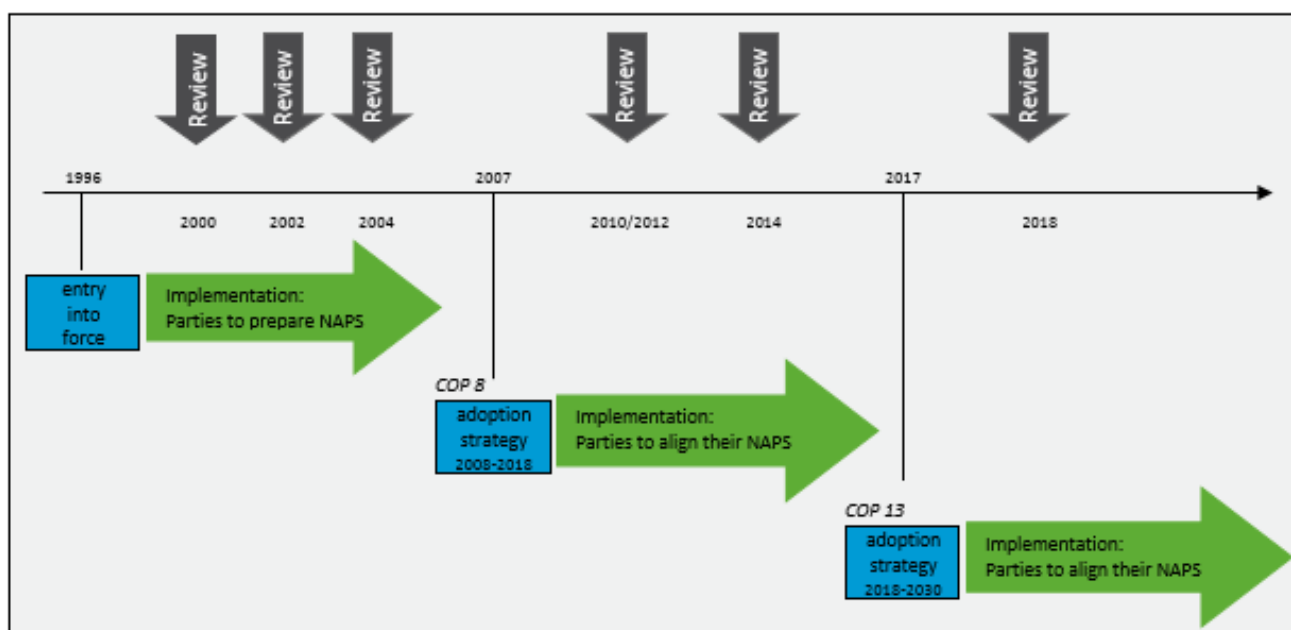
⁵⁷² Decision 3/COP.5, Report of the Ad Hoc Working Group for the in-depth review and analysis of reports submitted at the third and fourth sessions of the Conference of the Parties, 12 October 2001, ICCD/COP(5)/11/Add.1.

⁵⁷³ Decision 1/COP.6, Further steps in the implementation of the Convention, 3 September 2003, ICCD/COP(6)/11/Add.1.

adopted strategies to guide implementation and urged affected country parties to align the NAPs with the strategies.

The COP regularly reviews the implementation of the Convention and the functioning of its institutional arrangements based on the reports communicated by the parties and the experience gained at the different levels of implementation. In 2001, the COP has established the Committee for the Review of Implementation of the Convention (CRIC) with the mandate to assist in regularly reviewing the implementation of the Convention.⁵⁷⁴

Figure 2: Timeline for implementation and reporting under the UNCCD



Source: Own figure, Ecologic Institute

All parties have to communicate reports on the measures taken to implement the Convention to the COP through the Secretariat. Therefore, affected country parties initially provided information, among others, on the implementation of their NAPs and developed country parties on the support they had provided. Meanwhile, the "Performance Review and Assessment of Implementation System (PRAIS)" has been introduced.⁵⁷⁵ The parties now report on the implementation of the strategy, especially its strategic and operative objectives. This makes it difficult to link ongoing activities within affected country parties to their NAPs and the Convention. For example, the template for the fifth reporting cycle of 2014 only required the information whether or not affected country parties have a NAP and implement it. The provision of further information on the implementation has been voluntary.

Extraction of minerals in NAPs of selected countries

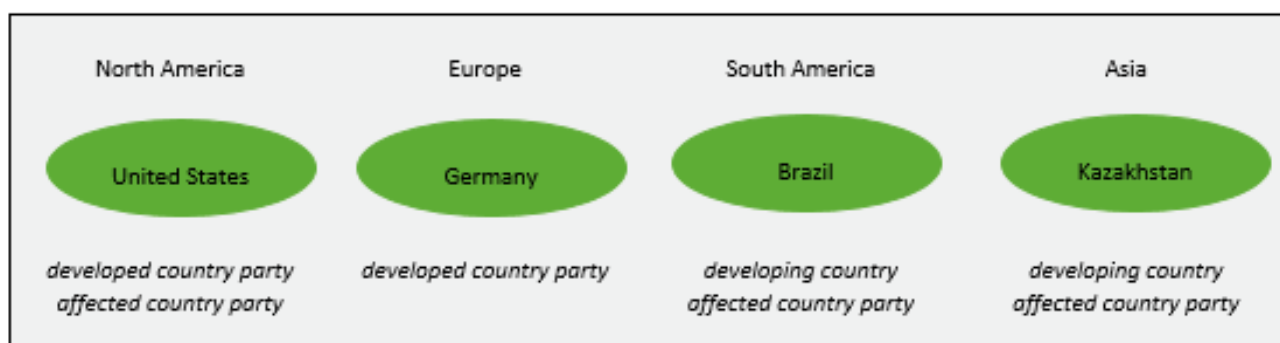
Various affected country parties have prepared and adopted NAPs to implement the Convention. Some of these reflect the possible connections between mineral extraction and desertification and drought. Although the economic potential and positive effects for the livelihood of local communities are stressed in most of these NAPs, some of them also describe mineral extraction as a driver for desertification and drought. In general, the actions listed in the programmes hardly address the negative impacts of mineral extraction. Despite the opportunity, affected developing country parties have hardly

⁵⁷⁴ Decision 1/COP.5, Additional procedures or institutional mechanisms to assist in the review of the implementation of the Convention, ICCD/COP(5)/11/Add.1, 12 October 2001.

⁵⁷⁵ See <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

used the UNCCD and the NAPs as an instrument to mitigate the negative impacts of mining activities on land and water resources. Therefore, the UNCCD's steering effect has been limited.

Figure 3: Overview of the countries chosen for the UNCCD implementation analysis



Source: Own figure, Ecologic Institute

Developed country parties support affected developing country parties in their efforts to combat desertification and to mitigate the effects of drought. They especially provide financial resources for the preparation and implementation of NAPs. While there have been various bilateral and multilateral projects to support affected developing country parties, hardly any of these projects address the extraction of minerals and its negative impacts on land, water and local communities.

United States

The United States signed the UNCCD on 14 October 1994 and ratified it on 17 November 2000. It contains significant dryland areas especially in the centre and in the west⁵⁷⁶ and therefore classifies as *affected country party* within the context of the UNCCD that is not listed in one of the regional implementation annexes and therefore is not required to prepare and implement a NAP. Upon ratification, the United States declared that it understands it is a *developed country party* within the context of the Convention and that it is not required to prepare a NAP. Therefore, so far, no NAP has been prepared.

In the third round of reporting in 2006, the United States submitted two reports, one in its role as affected country party and one in its role as developed country party. In its *affected country report* the United States describes its efforts to mitigate desertification in the west including, among others, advice to private land owners involved in agricultural and livestock production, efforts to increase use of specific renewable energy sources, programmes for reforestation and afforestation as well as intensification of soil conservation programmes, monitoring and assessment of drought and desertification, and measures for the rehabilitation of degraded land.⁵⁷⁷ While these efforts may affect mineral extraction, the report neither reflects the impacts of mineral extraction for land and water resources, nor does it mention specific activities to mitigate the impacts of mineral extraction for land and water resources. In its *developed country report* the United States reflects its activities in support of combating desertification especially through bilateral programmes with countries in Asia, Latin America and the Caribbean as well as Europe and Eurasia.⁵⁷⁸ None of these programmes has a focus on the impacts of mineral extraction on land and water resources.

⁵⁷⁶ See UNCCD (2017) at 248.

⁵⁷⁷ US (2006): National Report on Efforts to Mitigate Desertification in the Western United States. The First United States Report on Activities Relevant to the United Nations Convention to Combat Desertification, available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

⁵⁷⁸ USAID(2006): USAID FY 2004-2005 Activities in Support of the U.N. Convention to Combat Desertification, available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

In the report submitted as an affected country party during the fifth reporting circle in 2014, the United States reaffirmed it does not intend to develop a NAP.⁵⁷⁹ Due to the reporting format, hardly any information on efforts related to desertification, land degradation and drought had to be submitted. The United States only declared to have a monitoring system specifically dedicated to these issues that is regularly updated.⁵⁸⁰ Therefore, it is not transparent which activities have been implemented by the United States to achieve the targets of the Convention. Historically, the US has engaged in various activities nationally and internationally on mining.⁵⁸¹ However, it is not possible to link these to the UNCCD. It can be assumed that the United States does not consider activities to mitigate the negative impacts of mining on land and water resources necessary for implementation and does not utilise the Convention to approach the correlation between mineral extraction and desertification.

Germany

Germany signed the UNCCD on 14 October 1994 and ratified it on 10 July 1996. It does not have the status of an affected country party and therefore did not prepare a NAP. It submitted implementation reports in all reporting cycles, including the fourth reporting cycle in 2012 and the fifth reporting cycle in 2014. In 2018, Germany submitted an additional note to its sixth report giving information about national processes concerning land degradation neutrality, hence going beyond the reporting on support activities.⁵⁸² However, for now Germany's role under the UNCCD is to provide support.

In the implementation report of 2012, the various projects with affected developing country parties under the Convention are reflected. Among these, only one specifically addresses the mining sector: The BMZ funded the project "Defense of environmental rights and advocacy against pollution effects from mining industries" in Bolivia that was implemented with a national NGO.⁵⁸³

Due to the reporting format, no information has been given in the report of 2014 that could link support activities with mineral extraction in affected country parties.⁵⁸⁴ Although Germany provides funding for the implementation of the UNCCD especially in Africa⁵⁸⁵, there seem to be no projects focusing on mineral extraction. Yet, there are projects funded by the German government that target the mining sector.⁵⁸⁶ However, these are not linked to the UNCCD.

Brazil

Brazil signed the UNCCD on 14 October 1994 and ratified it on 25 June 1997. It has the status of an affected country party and prepared its NAP in 2004. Starting with the first reporting cycle, Brazil has participated in every reporting cycle from 2000 to 2014.

Brazils developed its NAP in 2004 in a participatory process. The NAP has a descriptive part on the state of desertification, the activities taken before adoption and the development process for the programme as well as a strategic part that gives orientation and lists the different actions to be taken in

⁵⁷⁹ US (2014): Report from United States of America as affected country Party, at 8, available on the internet at <http://prais2.unccd-prais.com> (last accessed on 28 February 2019).

⁵⁸⁰ Ibid at 11.

⁵⁸¹ USA, 2010, National Report - Transport, Chemicals, Waste Management, Mining, and Sustainable Consumption and Production, submitted to the United Nations' Department of Economic and Social Affairs Commission on Sustainable Development, available on the internet at <https://2009-2017.state.gov/documents/organization/140444.pdf> (last accessed 28 February 2019).

⁵⁸² Germany (2018): Additional note to the German National Report to UNCCD regarding the voluntary reporting on the implementation of Strategic Objective 1 (Land Degradation Neutrality) in Germany, https://prais.unccd.int/sites/default/files/2018-09/Germany_-_Additional_Note_on_SO-1.pdf.

⁵⁸³ Germany (2012) Fourth UNCCD reporting cycle, 2010–2011 leg - Report for Germany, pp. 918 et seq. and pp. 3195 et seq. The report is available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

⁵⁸⁴ Germany (2014): Report from Germany as developed country Party, available on the internet at <http://prais2.unccd-prais.com> (last accessed on 28 February 2019).

⁵⁸⁵ GIZ (2015) at 2.

⁵⁸⁶ See for example <https://www.giz.de/en/worldwide/14122.html>.

the future.⁵⁸⁷ The extraction of minerals is reflected in both parts of the NAP. It is described as an activity present in spaces affected by drought for more than two centuries.⁵⁸⁸ Besides its economic role, mining is said to have contributed strongly to the process of desertification in some high risk areas.⁵⁸⁹ Also, mineral exploitation has been found to cause environmental degradation in areas adjoining areas susceptible to desertification due to a lack of care in protection and recovery.⁵⁹⁰ Environmental impacts that have been witnessed in some regions include contamination of water by mercury, destruction of the landscape, soil erosion and silting of the creeks, rivers and lakes.⁵⁹¹

One of the thematic blocks for actions is the sustainable increase of productive capacity. It addresses the mining sector mainly by emphasising its importance and its potential: “The rational use of mineral resources, in the face of modern technologies available and the legal norms to which such activities are submitted, can constitute important economic and social alternatives for the development of this region.”⁵⁹² And further: “Managed in a sustainable way, in balance with the environment, mining can represent a viable alternative for socioeconomic development to benefit significant contingents of people who survive with very great difficulty.”⁵⁹³ Rather than naming specific actions to be taken in the future to mitigate the negative impacts of mining, the “implementation of alternative activities and projects of the mining sector” is suggested.⁵⁹⁴ Another thematic block is the preservation, conservation and sustainable management of natural resources. The revitalization of the hydrographic basin of the Sao Francisco River that was affected, among others, by mining activities through rerouting and discharge is named as one action.⁵⁹⁵ However, the NAP itself does not mention any planned actions specifically for the mining sector. Therefore, the NAP can be considered as a basis for activities mitigating the negative impacts of mining, but focuses on the opportunities and needs further elaboration.

After preparing its NAP, Brazil submitted its implementation reports in 2006, 2010, 2012 and 2014. Although the report of 2006 addresses implementation of the NAP, it does not follow up on progress in the mining sector.⁵⁹⁶ The report of 2010 already follows a template that reflects progress in the area of the objectives of the Strategic Framework for 2008-2018, but does not follow up on the activities listed in the NAP. Brazil did not align its NAP with the strategy due to a lack of financial resources, understaffing and poor internal coordination among relevant ministries.⁵⁹⁷ The report of 2012 also reflects implementation of the Strategic Framework for 2008-2018 and does not cover activities in the mining sector.⁵⁹⁸ The same applies to the latest report of 2014: Due to its reporting format no information are given specifically for the mining sector. The report only gives a short description of general challenges regarding NAP implementation and provides information on a programme to fight desertification that has been set up regardless of the Convention.⁵⁹⁹

⁵⁸⁷ Environment Ministry Brazil (2004): National Action Program to Combat Desertification and Mitigate the Effects of Drought, available on the internet at <http://knowledge.unccd.int/sites/default/files/naps/brazil-eng2004.pdf> (last accessed 28 February 2019).

⁵⁸⁸ Ibid, p. 7.

⁵⁸⁹ Ibid, p. 16.

⁵⁹⁰ Ibid, p. 25.

⁵⁹¹ Ibid, pp. 27-28.

⁵⁹² Ibid, p. 96.

⁵⁹³ Ibid, p. 97.

⁵⁹⁴ Ibid, p. 122.

⁵⁹⁵ Ibid, p. 136.

⁵⁹⁶ Brazil (2006): National Report – Implementation of the United Nations Convention to Combat Desertification: 2002-2006, available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

⁵⁹⁷ Brazil (2010): Report for Brazil, 4th Reporting and Review Cycle, at 14, 15, available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

⁵⁹⁸ Brazil (2012): Fourth UNCCD reporting cycle, 2010-2011 leg – Report for Brazil, available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

⁵⁹⁹ Brazil (2014): Informe de Brasil como país Parte afectado, at 8, available on the internet at <http://prais2.unccd-prais.com> (last accessed on 28 February 2019).

In Brazil, the NAP is only one instrument to prepare for drought that has not yet been integrated with the traditional instruments that have been developed to prepare for natural disasters.⁶⁰⁰ Still, since its preparation, ministries and authorities have used it as a frame of reference for a more sustainable use of natural resources.⁶⁰¹ However, the UNCCD and the NAP have not been instrumentalised to mitigate negative impacts of mining. Brazil's legal framework for mining focuses on the process for licensing, but hardly reflects possible negative environmental and social impacts.⁶⁰² A recent legislative initiative now aims to accelerate the process.⁶⁰³ It seems Brazil is focusing on the opportunities of mineral extraction and does neglect the correlation with desertification and drought. The UNCCD is neither the agenda setting instrument to tackle desertification and drought, nor did it initiate the adoption of regulations to mitigate the negative impacts of the mining sector on land and water resources.

Kazakhstan

Kazakhstan signed the UNCCD on 14 October 1994 and ratified it on 9 July 1997. It has the status of an affected country party and prepared a NAP in 2005. It started cooperating with UNDP to align the NAP; so far the process has not yet been completed.⁶⁰⁴ Kazakhstan participated in all reporting cycles starting in 2000.

The NAP starts with a description of the *status quo* and then presents the programme that is to be implemented in three phases.⁶⁰⁵ According to the findings in the NAP, the extraction of minerals causes pollution of the underground water, has negative impacts on ecosystems and therefore contributes to desertification.⁶⁰⁶ Also, the development of mineral fields causes major changes in fauna and therefore influences the degradation of vegetation.⁶⁰⁷ To prevent and combat desertification, Kazakhstan planned to conduct an inventory and assessment of degraded land in a first phase (2005-2007), to prepare and implement legal requirements and economic mechanisms for sustainable land management in a second phase (2008-2010), and to integrate desertification into socio-economic development in a third phase (2011-2015).⁶⁰⁸ While some of the activities listed might be relevant for mineral extraction, the national action programme does not list actions specifically for the mining sector.

In its 2006 implementation report, Kazakhstan classified the NAP as an instrument that allows decision makers to allocate resources to combat land degradation and to reduce social and economic consequences.⁶⁰⁹ It also identified measures to implement the Convention including "State Nature and Biosphere Reserves" as a tool to observe environmental limitations of mining in some territories in the northern Caspian Sea region.⁶¹⁰ The reports of 2010, 2012 and 2014 follow the template provided by the UNCCD and do not follow up on the implementation of specific NAP activities.⁶¹¹ Hence, they do not provide information on activities in the mining sector.

⁶⁰⁰ Gutierrez (2014) at 102.

⁶⁰¹ GIZ (2011) at 11.

⁶⁰² Freire (2016) at 25 et seq.

⁶⁰³ Spring (2017): "Brazil Senate approves creation of mining regulatory agency", 28 November 2017, available at <https://www.reuters.com/article/us-brazil-mining-regulation/brazil-senate-approves-creation-of-mining-regulatory-agency-idUSKBN1DS2PQ>.

⁶⁰⁴ Kazakhstan (2014): Report from Kazakhstan as affected country Party, at 9, available on the internet at <http://prais2.unccd-prais.com> (last accessed on 28 February 2019).

⁶⁰⁵ Kazakhstan (2005): The Program on Combating Desertification in the Republic Kazakhstan 2005-2015, available on the internet at <http://knowledge.unccd.int/sites/default/files/naps/kazakhstan-eng2005.pdf> (last accessed on 28 February 2019).

⁶⁰⁶ Ibid, p. 8.

⁶⁰⁷ Ibid, p. 9.

⁶⁰⁸ Ibid, pp. 10 et seq.

⁶⁰⁹ Ministry of Environmental Protection of Kazakhstan (2006): The Third National Report, at 5, available on the internet at <http://www.unccd-prais.com/Data/Reports> (last accessed on 28 February 2019).

⁶¹⁰ Ibid, at 17.

⁶¹¹ For example Kazakhstan (2014): Report from Kazakhstan as affected country Party, available on the internet at <http://prais2.unccd-prais.com> (last accessed on 28 February 2019).

Kazakhstan adopted a Law on Subsoil and Subsoil Use in 2010 that regulates mineral activities and is currently being revised to increase the investment attractiveness of the region and to simplify the permit procedures.⁶¹² However, the UNCCD is unlikely to play an important role in the legislative process. It seems Kazakhstan is focusing on the opportunities of mineral activities rather than the impacts on land and water resources.

Assessment

Coherence with other international treaties and policies: There are overlaps between the Convention and the 1992 Biodiversity Convention⁶¹³ as well as the 1992 United Nations Framework Convention on Climate Change⁶¹⁴ in regard to threats and objectives.⁶¹⁵ For example, a protocol on soil is being discussed under the Biodiversity Convention to address the conservation and sustainable use of soil biodiversity.⁶¹⁶ Another international treaty also addressing land use and land management is the 1971 Ramsar Convention on Wetlands⁶¹⁷ that protects wetlands also in drylands. The respective secretariats signed a Memorandum of Cooperation in 1998.⁶¹⁸

Political weight of the instrument: The Convention enjoys widespread support. It has been ratified by 196 countries and is basically universal. After Canada withdrew from the Convention in 2014, it re-accessed shortly thereafter with effect of March 2017.

The Convention is said to be the “sole legally binding international agreement linking environment and development to sustainable land management”.⁶¹⁹ It has been developed shortly after the 1992 Rio Conference that saw the adoption of the Biodiversity Convention and the United Nations Framework Convention on Climate Change. However, of the three Rio Conventions, the Convention has always been somewhat neglected in international environmental policy making.⁶²⁰

Considering the importance of soil protection and sustainable land use, the institutions dealing with these areas do not have a very high profile.⁶²¹ The Convention has recently seized the opportunity provided by SDG 15.3 to address land degradation neutrality and is willing to assume a leadership role.⁶²² This might increase the political relevance of the Convention in the future.⁶²³

Since its adoption, the Convention has shown its ability to adapt to new challenges: In 2007 the Conference of the Parties adopted a 10 year strategy for 2008 to 2018.⁶²⁴ In 2017, the Conference of the Parties adopted the new strategic framework for the period from 2018 to 2030 that focuses on land degradation neutrality and determines five strategic objectives.⁶²⁵

⁶¹² See <https://iclg.com/practice-areas/mining-laws-and-regulations/kazakhstan> (last accessed on 28 February 2019).

⁶¹³ Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, in force 29 December 1993, 31 *International Legal Materials* (1992), 818.

⁶¹⁴ United Nations Framework Convention on Climate Change, New York, 9 May 1992, in force 21 March 1994, 31 *International Legal Materials* (1992), 849.

⁶¹⁵ UNCCD (2017) at 15.

⁶¹⁶ Wolff and Kaphengst (2016) at 144.

⁶¹⁷ Ramsar Convention on Wetlands of International Importance, Ramsar, 2 February 1971, in force 21 December 1975, 11 *International Legal Materials*, 969.

⁶¹⁸ See http://archive.ramsar.org/cda/en/ramsar-documents-mous-memorandum-of-21238/main/ramsar/1-31-115%5E21238_4000_0 (last accessed 28 February 2019).

⁶¹⁹ <http://www2.unccd.int/convention/about-convention> (last accessed 28 February 2019).

⁶²⁰ Wissenschaftlicher Beirat der Bundesregierung Global Umweltveränderungen (WBGU) (2011) at 41.

⁶²¹ Wissenschaftlicher Beirat der Bundesregierung Global Umweltveränderungen (WBGU) (2011) at 41.

⁶²² See for example Decision 2/COP.12, Formulation, revision and implementation of action programmes in view of the 2030 Agenda for Sustainable Development, ICCD/COP(12)/20/Add.1, 23 October 2015.

⁶²³ So also the hope of the Secretariat: UNCCD (2015) at 19 et seq.

⁶²⁴ Decision 3/COP.8, The 10-year strategic plan and framework to enhance the implementation of the Convention, ICCD/COP(8)/16/Add.1, 14 September 2007.

⁶²⁵ Decision 7/COP.13. The future strategic framework of the Convention, ICCD/COP(13)/21/Add.1, 23 October 2017.

Consideration of small and medium-scale companies: The Convention only requires the consideration of socio-economic conditions in the countries in the development of national, sub-regional and regional action programmes (Annex I, Article 8.2 lit. a for Africa; Annex III, Article 2 lit. c for Latin America and the Caribbean). There is no consideration of companies; the countries are free in regard to the content of their national action programmes.

Effectiveness: First, there are several structural problems limiting the effectiveness of the Convention: Despite their value in guiding affected countries towards good governance to combat desertification and to mitigate the effects of droughts, the obligations are limited to drylands and hence only affect around 40% of the world's land area, and hardly require specific actions towards the objectives of the Convention.⁶²⁶ Quantitative goals for soil conservation and standards for the rehabilitation, conservation and sustainable management of land and water resources are missing.⁶²⁷

Second, NAPs as the key instrument of the UNCCD have proven a weak instrument especially to mitigate the negative impacts of mineral activities. Although there are a number of such programmes, their quality is not always convincing.⁶²⁸

Among the affected country parties, many developing countries have prepared NAPs while only few developed countries have engaged in the process. One example is the United States that already declared upon ratification of the Convention that it is not required to prepare a NAP. Also, out of the 15 EU Member States qualifying as affected country parties, only five prepared a NAP.⁶²⁹

When adopting the Strategic Framework for 2008-2018, the COP urged affected country parties to align their NAPs with the strategic and operational objectives determined by the Strategic Framework. However, in 2015 the COP noted that 8 years after adopting the 10-year strategic plan, only 20 per cent of Parties had so far aligned their NAPs with it.⁶³⁰ Both, Brazil and Kazakhstan, are examples of countries that have prepared NAPs, but have not aligned them with the Strategic Framework for 2008-2018. Although both countries declared in the fifth reporting cycle of 2014 that they are planning an alignment process, these processes have not been completed. Hence, there is already an implementation gap at this level.

There is no defined structure for NAPs as countries can choose their sectoral approaches and priority areas. Guidance is only provided by the Convention text and the regional Annexes. This gives countries discretion with regard to the activities they want to include in their NAPs. The UNCCD has no tool to ensure mineral activities are addressed in NAPs in case they contribute to desertification, land degradation and drought. Brazil and Kazakhstan have addressed mineral activities in their NAPs, other examples include Bhutan, Ethiopia, Eritrea, Liberia, Mongolia, Myanmar, Nigeria and Nieu. Still, even in case mineral activities have tremendous impacts on land and water resources in drylands, the UNCCD does not require countries to take measures. And affected country parties have not used the freedom given by the Convention to strategically address the link between mineral extraction and land degradation within their NAPs an plan for activities.

Also, the UNCCD does not provide guidance on how to address mineral activities in case countries choose to include them in their NAPs. Both, Brazil and Kazakhstan emphasise the economic opportunities mineral activities can offer. Although Brazil mentions sustainable management, it does not clarify the implications and necessary activities. Kazakhstan does not even determine any specific activities for the mining sector. Therefore, even if countries decide to include mineral activities in their NAPs,

⁶²⁶ Ginzky (2016) at 18.

⁶²⁷ Wissenschaftlicher Beirat der Bundesregierung Global Umweltveränderungen (WBGU) (2004) at 132.

⁶²⁸ Beyerlin and Marauhn (2011) at 207.

⁶²⁹ Bowyer et al. (2009) at 59.

⁶³⁰ UNCCD Decision 2/COP.12, Formulation, revision and implementation of action programmes in view of the 2030 Agenda for Sustainable Development, 23 October 2015, ICCD/COP(12)/20/Add.1, preamble.

that does not necessarily lead to a satisfactory handling of the associated negative environmental and social impacts.

While many affected country parties have prepared NAPs, implementation has been neglected.⁶³¹ One reason is that human and financial resources are allocated to the planning and reporting under the Convention instead of the implementation itself.⁶³² Another barrier has been the access to funding and the unwillingness of affected country parties to take the necessary action without financial support.⁶³³ However, due to the reporting format that has been used since 2010, information about the implementation of NAPs is hardly available as affected country parties are only asked whether they implement their NAPs or not. In 2014 both, Brazil and Kazakhstan, have stated that they are implementing their NAPs. Information on the activities taken and the progress made are not provided. Therefore, it is not possible to make a qualitative assessment of the actual implementation activities.

Developed country parties are required to provide support to affected developing countries in their efforts to address desertification, land degradation and drought. However, due to the resistance of developed country parties, the funding opportunities under the UNCCD are limited.⁶³⁴ Also, there have hardly been any projects specifically on NAP implementation in the mining sector. Germany, as one example, only had one project in Bolivia under the UNCCD focusing on the negative impacts of mineral activities. Developed country parties do not seem to have identified the correlation between mining and desertification as an area worth given priority in funding.

Many countries have legislation to regulate mineral activities. These focus on procedures for licenses, but also address environmental and social issues. The three selected affected country parties, the United States, Brazil and Kazakhstan, all have legislation focusing on the licensing procedures. Brazil and Kazakhstan are currently revising their legal frameworks to simplify these procedures to accelerate the process to better use the economic advantages associated with mining activities. It is, however, not possible to link the respective legal frameworks to the countries' NAPs or in general to UNCCD implementation.

With the NAPs the UNCCD has an instrument to address drivers of desertification, land degradation and drought. It leaves affected country parties discretion in regard to the sectors they include and the activities they determine. In combination with the funding provided and the cooperation offered, the UNCCD can be utilized by affected developing countries to address sectors that negatively affect land and water resources in drylands.

Also, it is not possible to get valuable information about the effectiveness of the NAPs as an instrument to address desertification, land degradation and drought. Some countries have included mining in their NAPs. As the reporting has been changed and does not relate to the implementation of NAPs, but instead to the implementation of the strategies adopted by the COP, progress and impacts of NAP implementation cannot be assessed.

Political opportunities and good practice examples:

Despite the potential, NAPs have not been used effectively to address desertification and land degradation in general and possible negative environmental and social impacts of mineral activities in particular. Although Brazil and Kazakhstan have identified mineral extraction as a driver for desertification, they have focused on the economic opportunities instead of determining specific activities to mitigate negative impacts. With the UNCCD only determining the preparation process, there is no tool to guide countries towards responsible mining. Nevertheless, there are opportunities:

⁶³¹ UNCCD Evaluation Office (2015) at 5.

⁶³² Ibid, at 4, 5.

⁶³³ Ginzky (2016) at 18 et seq.

⁶³⁴ Cotula (2016) at 150.

- ▶ A leading role in the implementation of SDG 15.3 on land degradation neutrality might increase the relevance of the Convention.
- ▶ Some countries including Brazil and Kazakhstan, but also Guyana, Ghana and Tanzania have included mining in their national action programmes as one possible sector that has impacts on desertification or one option to provide local communities with alternative livelihoods.
- ▶ Work under the strategic objectives for the period until 2030 determined by the new strategic framework can deal with the effects of mining on land degradation.
- ▶ As its geographical scope is limited, the Convention cannot be used as a tool to address land degradation associated with mining in general.

2.1.3 Human rights and social rights treaties

2.1.3.1 International Covenant on Civil and Political Rights (ICCPR)

Table 14: International Covenant on Civil and Political Rights (ICCPR) (adoption: 12 December 1966; in force: 23 March 1976 for all provisions except Article 41 (Human Rights Committee), and 28 March 1979 for Article 41)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Protect civil and political rights
Parties	169 state parties, incl. Germany
Territorial scope	Global
Resources covered	None specifically; “natural wealth resources” are mentioned in Article 1.2, and in Article 47
Stage of the value chain	All stages indirectly affected
Steering tool	Information, regulation
Assessment	+

Summary

The ICCPR is one of the two core international human rights instruments⁶³⁵ and enjoys wide support by states. The ICCPR does not specifically address the environmental impacts of resource extraction. However, mining activities can indirectly impair the enjoyment of different rights set out in the ICCPR.

Overview

Form and legal status: The ICCPR is an international treaty that was adopted on 12 December 1966 by the United Nations General Assembly (Resolution 2200A (XXI)). It entered into force on 23 March 1976, the provision on the Human Rights Committee on 28 March 1979.

⁶³⁵ The OHCHR lists nine core international human rights instruments in total – plus their optional protocols, <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CoreInstruments.aspx>.

As of January 2017, it had 169 parties. Most non-parties are small countries that claim that reporting obligations would burden their administrative capacities,⁶³⁶ or Muslim countries that oppose the ICCPR's approach to gender equality in particular.⁶³⁷ Several parties have only signed but not ratified the ICCPR (e.g. China), or ratified it with reservations or declarations.⁶³⁸

Some of the rights set out in the ICCPR come within the ambit of customary international law.⁶³⁹ Certain relevant provisions are recognised as peremptory norms (*ius cogens*), which basically means that no derogation is permitted, that other treaties that conflict with them are void, and that even subsequent agreements cannot modify them.⁶⁴⁰ This includes the prohibition of torture, Article 7, the prohibition of slavery, Article 8, and the right to self-determination, Article 1).⁶⁴¹

Article 4.1 ICCPR allows state parties to derogate, to a specified degree, from their obligations under the ICCPR during times of public emergencies. However, some of the ICCPR's rights are non-derogable, including, for example, the right to life (Article 6); the prohibition of torture, cruel, inhuman and degrading treatment (Article 7) and the prohibition of slavery, slave trade and servitude (Article 8).⁶⁴²

The ICCPR does not contain provisions on termination and does not provide for denunciation or withdrawal. Neither do the provisions of the Vienna Convention on the Law of Treaties on termination, denunciation or withdrawal apply, given that the drafters of the ICCPR deliberately excluded the possibility of denunciation.⁶⁴³

The ICCPR has two Optional Protocols. The First Optional Protocol⁶⁴⁴ establishes an individual complaint procedure, the Second Optional Protocol⁶⁴⁵ aims at the abolition of the death penalty.

Objectives: Unlike several other treaties, the ICCPR does not have a separate Article defining its objective. Its purpose, however, is nonetheless straightforward in that it aims to provide protection to civil and political rights of individuals.

Territorial scope: The ICCPR is open to states that are a member of the United Nations or of any of its specialized agencies, or party to the Statute of the ICJ. Other states need an invitation by the UN General Assembly. It is not open to regional economic integration organisations.

⁶³⁶ Tomuschat (2010).

⁶³⁷ Tomuschat (2010).

⁶³⁸ Domestically, ratification is required for China to become a party to the ICCPR. Other states that have signed but not ratified the ICCPR include Cuba, Nauru and Palau, for example. The reservations and declarations are accessible online: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-4&chapter=4&clang=en.

⁶³⁹ There is no definite list of customary international human rights law; many authors suggest that (at least) the rights set out in the Universal Declaration of Human Rights have obtained the status of customary international law. This, as well as the list of *ius cogens*, is, however, disputed. For details, cf., for example, Von der Wense (2013) at 17 et seq.

⁶⁴⁰ According to Article 52 of the Vienna Convention on the law of Treaties, they can be modified only by a subsequent norm of general international law having the same character.

⁶⁴¹ Cf. International Law Commission (2001) at Article 26, para. 5: "[...] peremptory norms that are clearly accepted and recognised include the prohibition of aggression, genocide, slavery, racial discrimination, crimes against humanity and torture, and the right to self-determination".

⁶⁴² Non-derogable rights set out on Article 4 ICCPR do not necessarily qualify as *ius cogens*; for further details on the differentiation, cf. for example Lepard (2010) at 339. See also the HRC's 1994 General Comment No. 24 on the admissibility of reservations to the ICCPR: "One reason for certain rights being made non-derogable is because their suspension is irrelevant to the legitimate control of the state of national emergency (for example, no imprisonment for debt, in article 11). Another reason is that derogation may indeed be impossible (as, for example, freedom of conscience)", HRC (1994) at para. 10.

⁶⁴³ See for further details on this conclusion: HRC (1997) at paras. 1-2, and OHCHR (2011) at Fn. 139. North Korea attempted to withdraw from the ICCPR but was informed that this would require consent by the remaining parties.

⁶⁴⁴ Optional Protocol to the International Covenant on Civil and Political Rights, Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966, entry into force 23 March 1976, in accordance with Article 9, United Nations, Treaty Series, vol. 999, p. 171; as of January 2017, the First Optional Protocol has 115 parties.

⁶⁴⁵ Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the abolition of the death penalty, Adopted and proclaimed by General Assembly resolution 44/128 of 15 December 1989, entry into force 11 July 1991, United Nations, Treaty Series, vol. 1642, p. 414; as of January 2017, the Second Optional Protocol has 84 parties.

The ICCPR applies, firstly, to individuals subject to the jurisdiction of its parties. It is under debate whether and to what extent it applies extraterritorially, i.e. to the respective state's citizens or activities abroad. The Human Rights Committee (HRC) has held, for example, that it assumes that the ICCPR applies extraterritorially if a state exercises "effective control" within a (foreign) territory.⁶⁴⁶ This view, however, is far from being universally recognised and remains controversial. The USA, for example, opposes this opinion with regard to Guantánamo.

As for its personal scope, the ICCPR only bestows individuals with rights; rights of legal persons or corporate bodies are not covered.⁶⁴⁷ Only individuals can file a complaint (see below).

The ICCPR lacks horizontal effect⁶⁴⁸, i.e. it does not produce obligations for non-state actors such as corporations. However, it requires state parties to take positive measures to provide individuals with protection against private interference, i.e. against interferences not only by state-owned companies but also by private sector companies such as mining companies.⁶⁴⁹

Type of steering tool: The ICCPR uses information tools (reporting cycle, see below) and regulatory instruments (descriptions of rights and obligations and of limitations).

Links to extraction, processing and transport of resources

Resources covered: The ICCPR does not cover any specific resources. However, it refers – generically – to "natural wealth resources" in Article 1.2, and in Article 47. Article 1.2 ICCPR recognises the right of all peoples to freely dispose of their "natural wealth and resources". Article 47 states that nothing in the ICCPR "shall be interpreted as impairing the inherent right of all peoples to enjoy and utilize fully and freely their natural wealth and resources". Natural resources are not defined and it is unclear, which resources they comprise.

Environmental and social impacts covered: The ICCPR does not set out rights specifically relating to the environment. It does not specifically cover social impacts of mining either. Nonetheless, the HRC has linked environmental harm to infringements of certain human rights set out in the ICCPR. In particular, it has linked environmental harm to violations of the following rights: the rights of minorities / indigenous peoples (Article 27 ICCPR), the right to self-determination (Article 1 ICCPR), the right to participate in public affairs (Article 25 ICCPR), the right to equality before the law (Article 26 ICCPR), the right to life (Article 6 ICCPR), and the right to a home free from arbitrary or unlawful interference (Article 17 ICCPR).⁶⁵⁰

Steps of the value chain covered: The ICCPR does not cover any specific steps of the value chain. Indirectly, however, it is potentially relevant throughout the entire stage of the lifecycle, given that the enjoyment of the ICCPR's rights can be impaired at every step.

Content

Relevant obligations for parties: The ICCPR provides that state parties undertake "to respect and to ensure" all rights guaranteed by the ICCPR. To that end, parties may choose their method of implementation. In order to "ensure" rather than merely "respect" the rights, states might, however, have to take "active steps".⁶⁵¹ In addition, states should communicate their obligations under the ICCPR to make

⁶⁴⁶ Cf. for example, OHCHR (2014) and OHCHR (2014a).

⁶⁴⁷ HRC (2004), para. 9; Tomuschat (2010) at 20.

⁶⁴⁸ HRC (2004), para. 8; Tomuschat (2010) at 21.

⁶⁴⁹ HRC (2004), para. 8; Spohr / MPFPR (2016) at 13.

⁶⁵⁰ OHCHR (2013) at 7 (para. 12), with further references.

⁶⁵¹ HRC (2003), para. 1; Tomuschat (2010) at 18. The scope of state obligations under human rights instruments is disputed. Commonly three categories are distinguished – the responsibility to respect human rights, to protect human rights, and to fulfil human rights

sure that not only individuals but also administrative and judicial authorities are familiar with the state's obligations under the Covenant.⁶⁵² Some of the rights set out in the ICCPR are absolute (for example the prohibition of torture, Article 7 ICCPR), while others may be restricted under certain circumstances (observing the conditions of legality and proportionality).⁶⁵³

The entire body of rights set out in the ICCPR can, in principle, be affected by mining activities. Rights can become relevant at all stages of the value chain. Nonetheless, it is possible to highlight certain rights that are particularly at risk in the context of mining:

Article 8 (Prohibition of forced labour) and Article 22 (Right to form and join trade unions).⁶⁵⁴ Article 1 (Right to self-determination, in connection with Article 27), Article 2 (Right to access to effective remedies), Article 19 (Right to freedom of opinion, information and expression), Article 22 (Right to freedom of association), Article 24 (Right of protection for the child), Article 26 (Right to equality before the law, equal protection of the law, non-discrimination), or Article 27 (Rights of minorities).⁶⁵⁵

Given that mining can affect many of the rights set out in the ICCPR, describing all rights in detail would exceed the scope of this analysis. However, some rights are worthy of particular attention in this context. This concerns the right to self-determination in particular, given that indigenous peoples are commonly affected by mining activities. The HRC has derived the right to free, prior and informed consent (FPIC) from Article 27 ICCPR, including the right to be consulted before lands are exploited economically.⁶⁵⁶

Institutions, reviews and decision-making

Institutions: The HRC is the main treaty body of the ICCPR and monitors implementation of the ICCPR by its parties. It examines the state parties' reports and provides each state party submitting a report with "concluding observations" that contain the HRC's concerns and recommendations. The HRC has published several so-called "General Comments"⁶⁵⁷, setting out the HRC's views on the content and scope of the rights and obligations enshrined in the ICCPR. The General Comments provide – non-binding – yet significant guidance, which parties and non-parties tend to consider carefully. Those states that have ratified the First Optional Protocol have also recognised the HRC as being responsible for individual complaints (see below).

Reporting: Parties are required to report regularly on the implementation of the Covenant.⁶⁵⁸ After the state has submitted its report, the HRC presents a so-called "List of Issues" for the state to comment on during the next stage of the reporting cycle, which usually entails a "constructive dialogue" and a written response by the state. Upon this stage, the HRC provides its "Concluding Observations", which include recommendations for the respective state to take into account.

Evaluation and review: The ICCPR does not provide for a particular evaluation or review procedure. However, it invites parties to propose amendments to the treaty in accordance with Article 51 ICCPR. Thus far, however, the ICCPR has not been amended. It has been supplemented by the two Optional Protocols mentioned above.

⁶⁵² HRC (2003), para. 2.

⁶⁵³ Cf. ECOSOC (1985) ("Siracusa Principles on the Limitation and Derogation of Provisions in the ICCPR").

⁶⁵⁴ GIZ (2015) at 2.

⁶⁵⁵ See IFC, at 1 and 2.

⁶⁵⁶ HRC (1994), para. 3.2 and para. 7.

⁶⁵⁷ Accessible online at: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=8&DocTypeID=11.

⁶⁵⁸ In the human rights context, the Universal Periodic Review (UPR) is another review system; it was established in 2006, along with the Human Rights Council.

Compliance procedures, remedies and dispute settlement procedures: The ICCPR provides for an inter-state dispute settlement mechanism and, via its First Optional Protocol, for an individual complaints procedure.

Articles 41 to 43 ICCPR regulate the resolution of disputes between states regarding a state's (alleged) non-compliance with its obligations under the ICCPR; in that respect, the Covenant also provides for the appointment of an *ad hoc* Conciliation Commission if necessary (cf. Article 42 ICCPR). So far, this mechanism has not yet been used.⁶⁵⁹

In addition, the First Optional Protocol of the ICCPR has established an individual complaints procedure under which the HRC is competent to receive and consider complaints by individuals alleging a violation of their rights by a state. The HRC may suggest reparations and can follow-up on its conclusions but cannot enforce its views. Accordingly, the compliance is generally low and the procedure's overall effectiveness is limited and weak.⁶⁶⁰ On the other hand, the cases the HRC has addressed and its conclusions to that end have been influential in that national courts but also international courts refer to them for interpretative guidance.

Stakeholder and public involvement: Civil society is entitled to submit shadow reports during the reporting cycle for the HRC to consider before providing its "List of Issues". This form of civil society involvement is commonly used and also an important source for the HRC. During a typical reporting cycle of one country, several civil society organisations and national human rights institutes (NHRIs) will normally submit their reports.

Assessment

Coherence with other international treaties and policies: Several rights set out in the ICCPR can also be found in other human rights instruments, such as the European Convention on Human Rights, the African Charter on Human and Peoples' Rights or the American Convention on Human Rights. The HRC also cooperates with other bodies such as the UN General Assembly or the Economic and Social Council.

Political weight of the instrument: The ICCPR is a widely accepted human rights instrument with significant political weight. It has influenced the human rights landscape and case law.⁶⁶¹ The HRC is also respected, and although it lacks enforcement mechanisms, it is nonetheless influential, although the more recently established Human Rights Council probably receives more public attention. Generally, the ICCPR receives political attention in particular in the context of its reporting cycle and in response to individual complaints.

Consideration of small and medium-scale companies: The ICCPR regulates the rights of individuals. It does not specifically address the limited implementation capacity of small or medium-sized companies.

Effectiveness: The ICCPR's effectiveness cannot be measured, and it is hard – perhaps impossible – to tell whether the human rights situation has improved at all as a result of the ICCPR's existence. Generally, human rights violations are still widespread and compliance with the HRC's conclusions is low, partly given that they are non-binding. Nonetheless, the ICCPR and its HRC influence other treaty bodies and courts with their General Comments and through the reporting cycle. Furthermore, in connection with the First Optional Protocol, the ICCPR provides individuals with a means to file complaints in case they become victims of human rights violations under the Covenant. In terms of access to justice, this is an important and rare tool for individuals at the international level.⁶⁶²

⁶⁵⁹ See for details, e.g. Weiß/Thouvenin (2015) at 71.

⁶⁶⁰ Cf. Van Alebeek/Nollkaemper (2012) at 3, with further references.

⁶⁶¹ Cf. for example Aust/Nolte (2016) or Sloss (2009) at 536, with further references.

⁶⁶² Cf. for details, for example, ACLU; Lombardi (2013); Kane/Critzer (2012); Simmons (2009) at 183 et seq.

Political opportunities and good practice examples:

- ▶ Further explore the link between human rights and environmental protection
- ▶ Amendments of the ICCPR cannot be expected
- ▶ Civil society contributions during the reporting cycle
- ▶ Inter-state disputes
- ▶ Raise awareness of the rights set out in the ICCPR and of the (potential) possibility of initiating an individual complaint

2.1.3.2 International Covenant on Economic, Social and Cultural Rights (ICESCR)

Table 15: International Covenant on Economic, Social and Cultural Rights (ICESCR) (adoption: 12 December 1966; in force: 03 January 1976)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Protect economic, social and cultural rights
Parties	165 parties, incl. Germany
Territorial scope	Global
Resources covered	None specifically, although Articles 1.2, 11.2a and 25 ICESCR refer to (natural) resources"
Stage of the value chain	All stages indirectly affected
Steering tool	Information, regulation
Assessment	+

Summary

The International Covenant on Economic, Social and Cultural Rights (ICESCR)⁶⁶³ is one of the two core international human rights instruments and enjoys wide support across states⁶⁶⁴ The ICESCR does not specifically address the environmental impacts of resource extraction. However, mining activities can indirectly impair the enjoyment of different rights set out in the ICESCR.

Overview

Form and legal status: The ICESCR is a treaty that was adopted on 12 December 1966 by the United Nations General Assembly (Resolution 2200A (XXI)). It entered into force on 03 January 1976.

As of January 2017, it has 165 parties, including all EU member states. However, several states have only signed but not ratified the ICESCR (e.g. the United States) or ratified it along with reservations or declarations (e.g. China).⁶⁶⁵ It is disputed whether all or some of the rights enshrined in the ICESCR enjoy the status of customary international law.

⁶⁶³ International Covenant on Economic, Social and Cultural Rights, United Nations, Treaty Series, vol. 993, p. 3, 16 December 1966.

⁶⁶⁴ The OHCHR lists nine core international human rights instruments in total – plus their optional protocols, <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CoreInstruments.aspx>.

⁶⁶⁵ The reservations and declarations are accessible online: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&clang=en.

The ICESCR does not contain provisions on termination and does not provide for denunciation or withdrawal. Thus, it is generally assumed that a state party cannot withdraw from the ICESCR (at least not without the other parties' consent).⁶⁶⁶

The ICESCR has one Optional Protocol⁶⁶⁷ which establishes an individual complaints mechanism for individuals or groups who claim that their rights under the ICESCR have been violated, and an inter-state complaints mechanism. It also establishes an inquiry procedure (see below). The Optional Protocol is in force, but in contrast to the ICESCR, the complaints mechanism has so far only attracted 22 parties, excluding Germany.⁶⁶⁸

Objectives: Although there is no specific provision defining its objective, the ICESCR reflects a core objective of the UN, namely to promote “respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion” (Article 1.3 Charter of the UN).⁶⁶⁹

Territorial scope: The ICESCR is open to members of the United Nations, any of its specialized agencies, or party to the Statute of the ICJ. Other states need an invitation by the UN General Assembly. The ICESCR is not open to regional economic integration organisations (Article 26.1 ICESCR).

Parties are bound by the ICESCR with regard to their territory. There have been very small indications by the Committee on Economic, Social and Cultural Rights that the ICESCR may have an effect beyond state borders. Such effect could mean that states may be bound by their obligations under the ICESCR when acting extraterritorially. However, this potential development has so far not evolved into specific statements or interpretation.⁶⁷⁰

Type of steering tool: The ICESCR regulatory instruments (rights, obligations and limitations) as well as information tools such as reporting. As for its personal scope, the ICESCR bestows only individuals and groups of individuals with rights; it does not confer rights on legal persons or corporate bodies. The ICESCR also does not create obligations for non-state actors such as corporations. However, the obligations on states generally comprise that the state has to provide protection against human rights interferences caused by private actors.

Links to extraction, processing and transport of resources

Resources covered: The ICESCR does not address any specific resources but is generally applicable to human rights violations relating to resource extraction.

Environmental and social impacts covered: The ICESCR is relevant for different environmental and social impacts of mining (see below), either directly or indirectly.

Steps of the value chain covered: The ICESCR is of potential relevance throughout the entire stage of the value chain, given that the enjoyment of the ICESCR's rights can be impaired at every step.

Content

Relevant obligations for parties: Generally, and in particular in comparison to the International Covenant on Civil and Political Rights, the rights set out in the ICESCR are largely aspirational. Full realisation of the rights is subject to a state's “available resources” and the obligations are not strict (“with a view to achieving progressively”). States have significant leeway when it comes to protecting the

⁶⁶⁶ Although no party has so far attempted to withdraw, Committee on Economic, Social and Cultural Rights (CESCR) (2011): Statement on the Obligations of States Parties Regarding the Corporate Sector and Economic, Social and Cultural Rights, U.N. Doc. E/C.12/2011/1, para. 3.

⁶⁶⁷ Optional Protocol, adopted on 10 December 2008, entry into force on 5 May 2013, in accordance with Article 18.1 ICESCR, as of January 2017, it has 22 parties.

⁶⁶⁸ https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=IV-3-a&chapter=4&clang=en.

⁶⁶⁹ Spohr / Max Planck Foundation for International Peace and the Rule of Law (MPFPR) (2016) at 9.

⁶⁷⁰ Coomans (2011).

ICESCR's rights and often it suffices to demonstrate that a state has taken all "appropriate" protective measures. In addition, developing countries may limit their endeavours to their own nationals (Article 2.3).

Human rights obligations may entail that a state not has to refrain from violating the ICESCR's rights, but also to *protect* individuals and groups against human rights abuses or to take positive action to facilitate the enjoyment of basic human rights. This is a matter of interpretation of the provision in question.

Article 4 of the ICESCR sets out the conditions under which a state party may derogate from its obligations under the ICESCR. Unlike the ICCPR, it does not contain a list of non-derogable rights. The Committee on Economic, Social and Cultural Rights (CESCR) has, however, set up a list of those rights it deems to contain minimum core obligations that states must undertake to ensure (so-called minimum essential level). This includes, for example, minimum essential basic shelter and housing, access to the minimum essential amount of water, or essential primary health care.⁶⁷¹

While in principle, the entire body of rights set out in the ICESCR can be affected by mining activities, certain rights are particularly relevant: Article 4 (Right to just and favourable conditions of work), Article 6 (Right to work/earn one's living), Article 8 (Right to form and join trade unions, and the right to strike), Article 10 (Prohibition of child labour), Article 11 (Right to an adequate standard of living, including the right to food), and Article 15 (Right to enjoy the benefits of scientific progress).⁶⁷² Other relevant rights are Article 1 (Right to self-determination) and Article 12 (Right to health).⁶⁷³

The *right to self-determination* (Article 1 ICESCR) is particularly relevant to indigenous peoples, which are commonly (and often severely) affected by mining activities.⁶⁷⁴ The CESCR has derived the right to free, prior and informed consent from Article 1.2 ICESCR, noting that mismanagement or a lack of transparency in the context of mining and mining contracts can constitute a violation of Article 1.2 ICESCR and indigenous peoples' right to prior and informed consent.⁶⁷⁵ The CESCR has also derived the *right to water* from the right to an adequate standard of living (Article 11 ICESCR).⁶⁷⁶ It held that states are obliged to abstain from all activities that interfere with the right to water and to enact legislation prohibiting water depletion and pollution.⁶⁷⁷ However, the precise scope of this right and extent of the state's duties, in particular with regard to private actors have to be established on a case-by-case basis.

As for *environmental impacts*, it is important to note that the ICESCR does not set out a general right to a healthy environment. However, the CESCR recognises that several ICESCR rights depend on a healthy environment. Environmental degradation (threatens the enjoyment of rights such as the right to an adequate standard of living, including the rights to adequate housing, adequate food, and safe and clean drinking water and sanitation (Article 11) or the right to the highest attainable standard of physical and mental health.⁶⁷⁸

⁶⁷¹ Cf. Committee on Economic, Social and Cultural Rights (CESCR) (1991): General Comment No. 3, The nature of States parties' obligations, U.N. Doc. E/1991/23., para. 10; OHCHR (2013) at 1.

⁶⁷² GIZ (2015) at 2.

⁶⁷³ See IFC, *Human Rights Scenarios – Extractives (Mining) Sector* at 1 and 2, available at <http://www.ifc.org/wps/wcm/connect/72bc64804bd53bf29f6fbf6eac26e1c2/hria-em-1.pdf?MOD=AJPERES>.

⁶⁷⁴ See, for instance, Lennox (2012) or Feiring (2013).

⁶⁷⁵ Committee on Economic, Social and Cultural Rights (CESCR) (2009): Concluding Observations of the Committee on Economic, Social and Cultural Rights: Madagascar, U.N. Doc. E/C.12/MDG/ CO/2, at para. 12; Spohr / MPFPR (2016) at 28.

⁶⁷⁶ Committee on Economic, Social and Cultural Rights (CESCR) (2002): General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant), U.N. Doc. E/C.12/2002/11, para. 10; the debate on the right to water and its scope is complex and contentious. In recent years, it has received an increasing amount of attention, also due to the UN General Assembly and especially its Resolution A/64/292.

⁶⁷⁷ Spohr / MPFPR (2016) at 54, with further references.

⁶⁷⁸ OHCHR (2013) at 6-8.

More generally, the CESCR has expressed its concern regarding the negative impact of the exploitation of natural resources on the enjoyment of rights set out in the ICESCR and has urged states to take all appropriate means to ensure, for example, that a state's natural resources are not subjected to illegal exploitation, or to adopt measures to control the export of minerals and impose sanctions in case of illegal trade.⁶⁷⁹

Institutions, reviews and decision-making

Institutions: The ICESCR's main treaty body is the Committee on Economic, Social and Cultural Rights (CESCR). It was established in 1985 and has been assigned to carry out the UN Economic and Social Council's functions under Part IV of the ICESCR.⁶⁸⁰ The CESCR's functions resemble those assigned to the Human Rights Committee under the International Covenant on Civil and Political Rights. In particular, it monitors implementation of the ICESCR and is responsible for the reporting cycle under the ICESCR (see below). It has 18 members and meets twice a year in Geneva.

The CESCR issues so-called General Comments⁶⁸¹ which set out its views on the content and scope of the rights and obligations enshrined in the ICESCR. The General Comments provide non-binding yet legally and politically significant guidance.

The (few) states that have ratified the Optional Protocol to the ICESCR have also recognised the CESCR as being responsible for individual complaints (see below).

Reporting: The ICESCR has a reporting system that obliges parties to submit periodic reports to the CESCR every five years. The reports should reflect on the progress achieved in realizing the ICESCR's rights (Article 16.1 ICESCR). The reporting cycle follows the same approach as the reporting cycle under the ICCPR - a state submits its report, the CESCR presents its "List of Issues", followed by a "constructive dialogue" between the state and the CESCR (with inputs potentially provided by civil society); finally, the CESCR provides its "Concluding Observations", which include recommendations for the respective state to take into account.

Evaluation and review: The ICESCR does not have a particular evaluation or review procedure. Parties have so far not made use of the possibility in Article 29 to amend the ICESCR. It has been supplemented in 2008 by one Optional Protocol.

Compliance procedures, remedies and dispute settlement procedures: The ICESCR's Optional Protocol establishes an individual complaints mechanism for individuals or groups who claim that their rights under the ICESCR have been violated. In addition, the ICESCR's Optional Protocol has established a mechanism for inter-state complaints (Article 10 of the Optional Protocol). There is also an inquiry procedure giving the CESCR the competence to initiate inquiries in case it receives reliable information on serious, grave or systematic violations of the ICESCR by a state party.

However, the vast majority of states has not ratified the ICESCR's Optional Protocol including states such as China, Canada, Russia, the USA, UK, India or Germany.⁶⁸²

⁶⁷⁹ See, for example, Committee on Economic, Social and Cultural Rights (CESCR) (2009): Concluding Observations of the Committee on Economic, Social and Cultural Rights: Democratic Republic of the Congo, 20 November 2009, U.N. Doc. E/C.12/COD/CO/4., para. 6; or Committee on Economic, Social and Cultural Rights (CESCR) (2009): Concluding Observations of the Committee on Economic, Social and Cultural Rights: Chad, 16 December 2009, U.N. Doc. E/C.12/TCD/CO/3., para. 23.

⁶⁸⁰ The CESCR was created by ECOSOC in Resolution 1985/17 of 28 May 1985.

⁶⁸¹ Available at http://tbinternet.ohchr.org/_layouts/treatybodyexternal/TBSearch.aspx?Lang=en&TreatyID=9&DocTypeID=11.

⁶⁸² The fact that Germany has not ratified the Optional Protocol is constantly criticised by several civil society representatives and it is indeed striking that Germany has ratified most major human rights treaties but not the ICESCR's Optional Protocol. Officially, one of the reasons for Germany's reluctance relates to civil servants' right to strike – a right that Germany does not fully recognise. There are also concerns relating to social benefits.

Stakeholder and public involvement: Civil society participates in the reporting cycle by submitting shadow reports.

Assessment

Coherence with other international treaties and policies: Some rights set out in the ICESCR are also included in other international human rights instruments. However, the overlaps are less frequent and evident than in the case of the International Covenant on Civil and Political Rights. The European Convention on Human Rights, for example, (arguably) only contains one socio-economic right (the right to education). In contrast, there are more overlaps between the ICESCR and the African Charter on Human and Peoples' Rights, which enshrines, for example, the right of all peoples to economic, social and cultural development (Article 22.1 African Charter on Human and Peoples' Rights) or the right to health, to education, to protection of the family etc.

Overlaps also exist with ILO Conventions, for example, including No. 29 on Forced or Compulsory Labor, or No. 87 on Trade Unions. There are but few overlaps with specific working conditions in ILO Convention No. 176.

Political weight of the instrument: Formally, the ICESCR is a widely accepted human rights instrument that has been recognised by the vast majority of states. However, it has not been ratified by relevant actors such as the USA which is active in resource extraction and hosts relevant mining enterprises.

Consideration of small and medium-scale companies: The ICESCR does not specifically address the implementation capacity of small or medium-sized companies.

Effectiveness: The ICESCR's effectiveness seems to be limited, mainly due to the aspirational nature and often vague language of its rights and obligations. Violations of economic, social and cultural rights appear to be particularly widespread. In practice, its effectiveness could also be affected by the lack of state support for the Optional Protocol and its individual complaints procedure. Responses to violations of civil and political rights generally create greater outrage than breaches of the rights set out in the ICESCR.⁶⁸³ Similar distinctions can be identified in the case of the European Convention of Human Rights in contrast to the European Social Charter.⁶⁸⁴

As for the mining sector, the effectiveness of the ICESCR is limited because as a human rights instrument, it does not directly apply to mining activities as such. Impacts from resource extraction are addressed only if and when they amount to a human rights violation.

Political opportunities and good practice examples:

- ▶ Amendments of the ICESCR are not realistic
- ▶ Civil society contributions during the reporting cycle could be supported
- ▶ It could be explored whether and to what extent it could be feasible and useful to consider an extraterritorial effect of some obligations. However, this is a very sensitive issue both legally and politically and should be approached with caution
- ▶ The reasons for Germany to not ratify the Optional Protocol could be reviewed

⁶⁸³ Steiner, Alston and Goodman (2007) at 264, with further references.

⁶⁸⁴ Also the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights of 1988 is recognised by fewer states than the Convention as such; cf. Steiner/Alston/Goodman (2007) at 280/281, with further references.

2.1.3.3 International Labour Organisation - Safety and Health in Mines Convention (C176)

Table 16: Safety and Health in Mines Convention (adoption: 22 June 1995; in force: 5 June 1998)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Prevent fatalities, injuries or ill health affecting workers or members of the public; prevent damage to the environment
Parties	33
Territorial scope	Global
Resources covered	Minerals, excluding oil and gas
Stage of the value chain	Exploration, extraction, preparation of minerals
Steering tool	Allocation of responsibilities to competent authorities, employers and workers
Assessment	+

Summary

The Safety and Health in Mines Convention is a treaty under the umbrella of the International Labour Organization to improve the health and safety of miners. It was adopted together with the Safety and Health in Mines Recommendation that is not binding, but provides additional guidance. To implement the Convention, members have to assign tasks to a competent authority, employers and workers in national laws and regulations. The Convention is open for ratification by all member states to the International Labour Organization. However, only 33 countries have joined the Convention so far – including Russia, Germany, Sweden and the United States. Although the International Labour Organization is considered to be the pioneering international institution in the area of social and labour standards, enforcement of its Conventions in its member countries is weak, as the ILO has no effective mechanism to deal with violations.

Overview

Form and legal status: The Safety and Health in Mines Convention⁶⁸⁵ was adopted on 22 June 1995 and entered into force on 5 June 1998. Its ratification is optional for all ILO members – so far 33 out of 187 ILO member states have decided to do so.⁶⁸⁶ Implementation of the Convention is guided by the non-binding Safety and Health in Mines Recommendation that was adopted at the same time and provides details to the provisions of the Convention.⁶⁸⁷

Objectives: The Convention aims to prevent any fatalities, injuries or ill health affecting workers or members of the public, and also damage to the environment arising from mining operations. Its objective is to create a culture of health and safety in mines and to set comprehensive minimum standards to protect miners.

⁶⁸⁵ Convention concerning Safety and Health in Mines, Geneva, 22 June 1995, in force 5 June 1998, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312321:NO (last accessed on 28 February 2019).

⁶⁸⁶ See http://www.ilo.org/dyn/normlex/de/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312321 (last accessed on 28 February 2019).

⁶⁸⁷ Recommendation concerning Safety and Health in Mines, Geneva, 22 June 1995, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312521:NO (last accessed on 28 February 2019).

Territorial scope: The Convention is open for ratification to all 187 ILO members and could therefore achieve global scope. So far, 33 countries from Northern and Southern America, Africa, Europe and Asia are parties.

Type of steering tool: The Convention requires its members to assign responsibilities to competent authorities, employers and workers through national laws and regulations. A general obligation to formulate, implement and periodically review a coherent mining policy, together with tasks related to the planning, operation and monitoring of mines, establish a circle of continuous improvements.

Links to extraction, processing and transport of resources

Resources covered: The scope of the Convention applies to all mines and is not confined to specific resources (Article 2.1). However, according to the definition of mines, the exploitation and extraction of minerals does not include oil and gas (Article 1.1). Also, certain categories of mines can be excluded in case members cannot ensure their compliance with the established standard and would otherwise refrain from ratification altogether. In this case they have to formulate a plan to progressively include these categories of mines in the scope of the Convention.

Environmental and social impacts covered: The Convention focuses on the social impacts of mining activities as it aims to protect workers by preventing fatalities, injuries or ill health. To this end, it establishes several procedures and standards that competent authorities, employers and workers have to establish and comply with. The standards are quite abstract in order to be applicable to different countries, mining activities and circumstance. For instance, obligations such as to “ensure adequate ventilation” (Article 7(f)) do not specify technical details.

Although the Convention’s preamble recognises that it is “desirable” to prevent damage to the environment arising from mining, it does not establish specific requirements to that end. Members are only required to take measures for the safe storage, transportation and disposal of hazardous substances used in the mining process and waste produced at the mine (Article 5.4 (d)). Apart from that, impacts on the environment are only addressed as a collateral effect of measures taken to ensure safety and health of workers.

The non-binding Health and Safety Recommendation also gives very little guidance relating to the environment. It provides that emergency plans “might” include adequate protection of the environment. More generally, due regard “should be given” to the possible impact of mining activities on the surrounding environment. In particular, this should include the control of subsidence, vibration, fly-rock, harmful contaminants in the water, air or soil, the safe and effective management of waste tips and the rehabilitation of mine sites (no. 19(d) and 33).

Steps of the value chain covered: The Convention applies to the mining sector and all mines (Article 2.1). It covers the exploration, extraction and preparation of minerals in surface and underground sites except for the extraction of oil and gas (Article 1.1).

Content

Relevant obligations for parties: The Safety and Health in Mines Convention requires its members to adopt national laws and regulations with three different addressees: competent authorities, employers and workers.

To ensure *competent authorities* can meet their responsibilities, national laws and regulations shall provide for the supervision of safety and health in as well as the inspection of mines; procedures for reporting and investigating accidents, occurrences and mine disasters as well as the compilation and publication of corresponding statistics; the power to suspend or restrict mining activities on safety and health grounds; and the establishment of procedures to ensure workers and their representatives are consulted (Article 5.2).

To hold *employers* accountable, national laws and regulations have to ensure they take all necessary measures to eliminate or minimize the risks to safety and health in mines under their control during design, construction, commissioning, operation and maintenance (Article 7). They also have to prepare emergency response plans (Article 8), deal proactively with physical, chemical or biological hazards for workers (Article 9), ensure training of workers, supervision and control of safety, investigation and reporting of accidents (Article 10), and provide regular health surveillance of workers (Article 11).

Workers have several rights including the right to report accidents, to request inspections, to be informed of workplace hazards, to obtain information relevant for safety and health, to remove themselves from mines in case of danger, and to collectively select safety and health representatives (Article 13.1). These safety and health representatives have the right to represent workers, to participate in inspections, to have recourse to advisers and independent experts, to consult with the employer and the competent authority, and to receive a notice of accidents and dangerous occurrences (Article 13.2). Parties have the obligation to ensure that workers can exercise their rights without discrimination or retaliation, which can be an important element of ensuring compliance. In addition to their rights, workers also have certain duties that include the duty to comply with safety and health measures, to take reasonable care for their own safety and health, to report situations that could present a risk, and to cooperate with their employer.

Institutions, reviews and decision-making

Institutions: The ILO is an international organisation established in 1919 to set labour standards and also to develop policies and devise programmes promoting decent work for all women and men. Its Constitution⁶⁸⁸ established three organs: the International Labour Conference that meets annually in plenary assemblies and sets international labour standards (Article 3 of the ILO Constitution), the Governing Body that acts as an executive council and holds three sessions a year (Article 7 of the ILO Constitution) and the International Labour Office that functions as a permanent secretariat (Article 10 of the ILO Constitution).

The Safety and Health in Mines Convention was developed and adopted by the ILO and does not establish any additional intergovernmental bodies. It only requires its members to designate the competent *national* authority that is responsible for the monitoring and regulation of various aspects of safety and health in mines (Article 5.1).

Reporting: The ILO Constitution establishes reporting requirements for the members and non-members to a Convention. Members to a Convention have to report to the International Labour Office on the measures they have taken for implementation every five years (Article 22 of the ILO Convention).⁶⁸⁹ Notably, non-members also have a reporting obligation with regard to ILO conventions they have *not* ratified: They have to report at appropriate intervals to the Director General of the International Labour Office the position of their law and practice, showing the extent to which they have given effect to the convention and the difficulties in ratifying (Article 19.5 (e) of the ILO Constitution). The Safety and Health in Mines Convention does not establish any additional reporting requirements.

Evaluation and review: The ILO Constitution establishes a procedure to regularly review implementation of labour standards in member states. Two special bodies deal with reports submitted by members, the Committee of Experts on the Application of Conventions and Recommendations and the Conference Committee on the Application of Conventions.⁶⁹⁰

⁶⁸⁸ Constitution of the International Labour Organization, Paris, 1 April 1919, in force 28 June 1919, available at www.ilo.org.

⁶⁸⁹ The initial annual reporting has been replaced by a five-years-cycle due to the high number of conventions and reports. See Governing Body, Report of the Committee on Legal Issues and International Labour Standards, Geneva, November 1993, GB.258/6/19.

⁶⁹⁰ Romano (1996) at 4. Initially, the International Labour Conference examined the reports submitted by the Member States for the various Conventions at its annual sessions (Article 23 of the ILO Constitution).

The Safety and Health in Mines Convention supplements these provisions concerning evaluation and review. The parties shall review the policies on safety and health in mines periodically (Article 3) and the ILO Governing Body shall present the International Labour Conference a report on the working of the Convention and the need of its revision at such times as it may consider necessary (Article 22).

Compliance procedures, remedies and dispute settlement procedures: The ILO Constitution establishes two types of procedures to address compliance with the conventions that are based on the submission of either a representation or a complaint.

The *representation procedure* grants industrial associations of employers or of workers the right to make a representation to the International Labour Office against a member that is not in compliance with one of the Conventions (Article 24 of the ILO Constitution). This may lead to the establishment of a committee under the Governing Body that examines the representation and the government's response and issues a report to the Governing Body. In case the government's response is not considered satisfactory, the Governing Body is entitled to publish the representation and the response (Article 25 of the ILO Constitution). The procedure provides for transparency and clarification, but remains on the political level and does not allow for direct sanctions in case of violations.⁶⁹¹

The *complaint procedure* allows member states to the same convention, delegates to the International Labour Conference and the Governing Body to file complaints against any member state that is not in compliance with one of the Conventions (Article 26.1 and 4 of the ILO Constitution). This does not require a direct injury of the complainant as ILO Conventions promote interests that are common to all Member States.⁶⁹² After receiving the complaint, the Governing Body may appoint a Commission of Inquiry to carry out a full investigation and to make recommendations on measures to be taken (Article 26.3 of the ILO Constitution). This investigation procedure is usually set up in cases where a member state is accused of persistent and serious violations and has repeatedly refused to address them.⁶⁹³ If the concerned member state does not accept the recommendation made by the Commission of Inquiry, it has the right to refer the complaint to the International Court of Justice (ICJ) (Article 29.2 of the ILO Constitution). The ICJ then has the power to affirm, vary or reverse the findings and recommendations of the Commission of Inquiry (Article 32 of the ILO Constitution). Although no country has ever referred a complaint to the ICJ, this remains a possibility.⁶⁹⁴ If a country refuses to fulfil the recommendations of the Commission of Inquiry or the decision of the ICJ, the Governing Body can recommend measures to ensure compliance to the International Labour Conference (Article 33).

Stakeholder and public involvement: The Convention does not provide for the information or involvement of the public. However, it requires national laws and regulations to provide for certain rights of workers and their representatives. Accordingly, workers have the right to report accidents to the employer and to the competent authorities, the right to request inspections and investigations, the right to be informed of workplace hazards, the right to obtain information relevant to their safety or health, and the right to collectively select safety and health representatives (Article 13.1). The representatives have the right to represent workers on all aspects of workplace safety and health, the right to participate in inspections and investigations, the right to monitor safety and health matters, the right to have recourse to advisers and independent experts, the right to consult with the employer and the competent authority on safety and health matters, and the right to receive a notice of accidents (Article 13.2).

In general the ILO is a special international institution because its governance structure includes not only states but also employers and workers representatives.⁶⁹⁵ A country's delegation to the ILO is composed of two government delegates, one employer's delegate, and one worker's delegate (Article 3

⁶⁹¹ Romano (1996) at 10.

⁶⁹² Romano (1996) at 11.

⁶⁹³ Berliner et al. (2015) at 46.

⁶⁹⁴ Swepston (2012) at 363.

⁶⁹⁵ Leary (1992) at 363.

of the ILO Constitution). Also, the Governing Body is composed of 28 government members, 14 employer members and 14 worker members (Article 7 of the ILO Constitution).

Assessment

Coherence with other international treaties and policies: Before the Safety and Health in Mines Convention, there were already various other conventions and recommendations that were more or less relevant to health and safety in mines. These include, among others, the 1988 Safety and Health in Construction Convention⁶⁹⁶ and Recommendation⁶⁹⁷, the 1993 Prevention of Major Industrial Accidents Convention⁶⁹⁸ and Recommendation⁶⁹⁹, and the 1965 Medical Examination of Young Persons (Underground Work) Convention⁷⁰⁰. There are also links with the 1981 Occupational Safety and Health Convention⁷⁰¹ and Recommendation⁷⁰². However, despite the large number of conventions and recommendations adopted by the ILO, the standards were considered insufficient to specifically protect the health and safety of miners. The Safety and Health in Mines Convention is the only internationally agreed standard for safety and health in mines as a workplace.⁷⁰³

Political weight of the instrument: The International Labour Organization is the international institution for the development and adoption of social and labour standards.⁷⁰⁴ Its Safety and Health in Mines Convention is considered an important instrument to set standards for the mining sector and has, for example, been ratified by Turkey as a reaction to a mine collapse that killed numerous workers.⁷⁰⁵ It is the only internationally agreed standard for safety and health specifically in mines as a workplace.⁷⁰⁶ However, since its adoption in 1995, only 33 of the 187 ILO members states have ratified the Safety and Health in Mines Convention. Many prominent mining countries, including Australia, Chile and China, have chosen not to participate.

Consideration of small and medium-scale companies: The Convention applies to all mines (Article 2.1) and does not specifically address small and medium-scale companies. However, the Recommendation advises member states to take measures to encourage and promote specific assistance by the competent authorities to small mines (no. 5 (b)).

⁶⁹⁶ Convention concerning Safety and Health in Construction (No. 167), Geneva, 20 June 1988, in force 11 January 1991, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C167 (last accessed 28 February 2019).

⁶⁹⁷ Recommendation concerning Safety and Health in Construction (No. 175), Geneva, 20 June 1988, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312513:NO (last accessed 28 February 2019).

⁶⁹⁸ Convention concerning the Prevention of Major Industrial Accidents (No. 174), Geneva, 22 June 1993, in force 3 January 1997, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C174 (last accessed 28 February 2019).

⁶⁹⁹ Recommendation concerning the Prevention of Major Industrial Accidents (No. 181), Geneva, 22 June 1993, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312519:NO (last accessed 28 February 2019).

⁷⁰⁰ Convention concerning Medical Examination of Young Persons for Fitness for Employment Underground in Mines, Geneva, 23 June 1965, in force 13 December 1967, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312269:NO (last accessed 28 February 2019).

⁷⁰¹ Convention concerning Occupational Safety and Health and the Working Environment, Geneva, 22 June 1981, in force 11 August 1983, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312300:NO (last accessed 28 February 2019).

⁷⁰² Recommendation concerning Occupational Safety and Health and the Working Environment, Geneva, 22 June 1981, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312502:NO (last accessed 28 February 2019).

⁷⁰³ Oraee (2011) at 2.

⁷⁰⁴ Memmen (2004) at 68.

⁷⁰⁵ Hilgert (2015) at 60.

⁷⁰⁶ Oraee (2011) at 2.

Effectiveness: The Convention sets the minimum safety and health requirements against which all changes to mine operations should be measured.⁷⁰⁷ However, the mechanisms to facilitate implementation and compliance under the ILO are weak. Therefore, its effectiveness relies on political pressure.⁷⁰⁸

Political opportunities and good practice examples:

- ▶ Set of rules specially developed and designed to improve the situation of workers in mines.
- ▶ Developed under the auspices of the International Labour Organization that is the pioneering institution for social and labour standards.
- ▶ Since some of the ratifications are recent or only a few years ago, there could be an opportunity for promoting ratification by other ILO members.
- ▶ Although the Convention does not primarily target environmental protection and protection of local communities, it does nonetheless provide suitable starting points for broadening the scope of its instruments.

2.1.3.4 International Labour Organisation – Working Environment (Air Pollution, Noise and Vibration) Convention (C148)

Table 17: Working Environment Convention (adoption: 20 June 1977; in force: 11 July 1979)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Prevent, control and protect against occupational hazards in the working environment due to air pollution, noise and vibration
Parties	46
Territorial scope	Global
Resources covered	All resources
Stage of the value chain	All economic activities
Steering tool	Allocation of responsibilities to competent authorities, employers and workers; measures for prevention and protection, for supervision of workers' health and for instruction of all persons concerned
Assessment	+

Summary

The Work Environment (Air Pollution, Noise and Vibration) Convention has been developed under the International Labour Organization to prevent, control and protect workers against occupational hazards in the working environment due to air pollution, noise and vibration. It has been adopted together with a Work Environment (Air Pollution, Noise and Vibration) Recommendation that is not binding, but provides additional guidance. To implement the Convention, its parties have to assign tasks to a competent authority, employers and workers by national laws and regulations. These aim to ensure a collective effort to improve the work environment for all economic activities. The Convention is open for ratification by all members to the International Labour Organization. However, only 46 countries have ratified the Convention so far – including Russia, Germany and Sweden. Although the

⁷⁰⁷ Jennings (2000) at 6.

⁷⁰⁸ Memmen (2004) at 68.

International Labour Organization is considered the pioneering institution in the area of social and labour standards, it is weak in the enforcement of its Conventions in the countries as it has no effective mechanism to deal with violations.

Overview

Form and legal status: The Work Environment (Air Pollution, Noise and Vibration) Convention⁷⁰⁹ was adopted on 20 June 1977 and entered into force on 11 July 1979. Its ratification is optional for all ILO members – so far 46 out of 187 ILO member states have ratified the Convention.⁷¹⁰ Implementation of the Convention is guided by the non-binding Working Environment (Air Pollution, Noise and Vibration) Recommendation⁷¹¹ that has been adopted together with the Convention.

Objectives: The Convention aims to prevent, control and protect against occupational hazards in the working environment due to air pollution, noise and vibration in all branches of economic activity.

Territorial scope: The Convention is open for ratification from all 187 ILO members and could therefore achieve global scope. So far, 46 countries from Southern America, Africa, Europe and Asia have become Party to the Convention.

Type of steering tool: The Convention requires its members to assign responsibilities to competent authorities, employers and workers. As it applies to all branches of economic activities, the Convention takes an integrated approach⁷¹² but does not determine details such as limit values etc. It establishes standards for the prevention of occupational hazards and the protection of workers, for the supervision of the health of workers, and for training, information and research.

Links to extraction, processing and transport of resources

Resources covered: The scope of the Convention is not determined by specific resources and instead applies to all branches of economic activities (Article 1.1). It therefore covers all resources.

Environmental and social impacts covered: The Convention focuses on social impacts as it aims to protect workers against occupational hazards. Environmental impacts are only covered indirectly insofar they are reduced by measures taken to protect workers.

Steps of the value chain covered: In principle, the Convention applies to all branches of economic activities (Article 1.1). However, parties may exclude particular branches of economic activities which pose special problems that would hinder ratification (Article 1.2). In that case the party has to justify its decision in the first implementation report and to give information on progress in all subsequent reports (Article 1.3).

Content

Relevant obligations for parties: The Convention requires its parties to adopt national laws and regulations with three different addressees: competent authorities, employers and workers. The competent

⁷⁰⁹ Convention concerning the Protection of Workers against Occupational Hazards in the Working Environment Due to Air Pollution, Noise and Vibration, Geneva, 20 June 1977, in force 11 July 1979, available at: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312293 (last accessed on 28 February 2019).

⁷¹⁰ See http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312293:NO (last accessed on 28 February 2019).

⁷¹¹ Recommendation concerning the Protection of Workers against Occupational Hazards in the Working Environment due to Air Pollution, Noise and Vibration, Geneva, 20 June 1977, available at: http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312494:NO (last accessed on 28 February 2019).

⁷¹² ILO (2013) at 8.

authorities are responsible for the development of national standards (Article 8) and to ensure the application of national laws and regulations (Article 5.1). Employers have an overall responsibility to comply with the prescribed measures (Article 6.1) and workers are required to comply with safety procedures (Article 7.1).

Parties have to provide for different measures by national laws or regulations. In regard to prevention and protection, they primarily have to keep the working environment free from any hazard due to air pollution, noise or vibration (Article 9) and have to ensure the provision and maintenance of suitable personal protection equipment in cases hazards cannot be eliminated (Article 10). In addition, national laws and regulations have to introduce measures for the supervision of the workers' health (Article 11) and the information of all persons of potential occupational hazards and their instruction in the measures available for prevention, control and protection (Article 13).

To ensure application of the different measures, parties have to take such steps, including the provision of appropriate penalties, as may be necessary to give effect to the Convention, and have to provide appropriate inspection services (Article 16). The obligations are abstract in that they provide e.g. *that* parties have to take measures, but not *which* particular measures.

Institutions, reviews and decision-making

Institutions: The Work Environment Convention was developed and adopted by the International Labour Organisation. It does not establish any intergovernmental bodies additional to those established by the ILO Constitution (for the institutions established under the ILO Constitution see the section on ILO Convention 176). Implementation within the Member States is facilitated and supported by a *national* competent authority.

Reporting: The ILO Constitution requires members to report on the implementation measures they have taken every five years, and non-member to report on their law and practice at appropriate intervals (for the reporting requirements under the ILO Constitution see the section on ILO Convention 176). The Work Environment Convention does not establish any additional reporting requirements.

Evaluation and review: The ILO Constitution establishes a procedure to regularly review implementation of labour standards in Member States (for the review process under the ILO Constitution see the section on ILO Convention 176). Supplementary, the Work and Environment Convention requires the Governing Body to present the International Labour Conference a report on the working of the Convention and the need of its revision at such times as it may consider necessary (Article 22).

Compliance procedures, remedies and dispute settlement procedures: The ILO Constitution establishes a *representation procedure* that can be used by industrial associations of employers or of workers and a complaint procedure that can be invoked by member states, delegates to the International Labour Conference and the Governing Body (for an explanation of the two procedures see the section on ILO Convention 176).

Stakeholder and public involvement: The Convention does not provide for public involvement in its implementation, but details the rights of employers and workers as well as their representatives against the competent national authorities and provides for a close cooperation between employers and their workers.

As a general rule, the competent national authority has to consult with representative organisations of employers and workers in the implementation of the Convention (Article 5.1) and has to involve them in the elaboration of provisions for practical implementation of national laws and regulations (Article 5.2). When the competent authority establishes criteria to determine the hazards of exposure to air pollution, noise and vibration or specifies exposure limits based on these criteria, it has to take the opinion of technical experts designated by representative organisations of employers and workers

into account (Article 8.2). Also, representatives of employer and workers have a right to accompany inspectors supervising the application of national laws and regulations (Article 5.4).

To strengthen the role of workers in achieving a safe working environment, they shall have the opportunity to collaborate as closely as possible with employers (Article 5.3). They or their representatives shall also have the right to present proposals, to obtain information and to appeal to appropriate bodies to ensure protection (Article 7.2).

In general the ILO is a special international institution because its governance structure includes not only states but also employers and workers representatives (see section on ILO Convention 176).⁷¹³

Assessment

Coherence with other international treaties and policies: There are overlaps of the Work Environment Convention and Recommendation with several other Conventions and Recommendations adopted by the International Labour Organization. These either address a specific group of substances such as the 1968 Asbestos Convention⁷¹⁴ and Recommendation⁷¹⁵ or regulate specific sectors such as the 1995 Safety and Health in Mines Convention⁷¹⁶ and Recommendation⁷¹⁷ and are therefore different in scope.⁷¹⁸

Political weight of the instrument: The International Labour Organization is the international institution for the development and adoption of social and labour standards.⁷¹⁹ These standards have initiated reform processes and are appreciated by stakeholders and experts.⁷²⁰ However, the comparably low number of ratifications remains a critical issue.⁷²¹ Since its adoption in 1977, only 46 of the 187 ILO Members States have ratified the Work Environment Convention. Also, there is a high imbalance towards Europe with regard to ratification.⁷²²

Consideration of small and medium-scale companies: The Convention applies to all branches of economic activities and does not differentiate between different kinds of companies (Article 1.1).

Effectiveness: The Work Environment Convention follows an integrated approach as it does not single out a specific sector or a specific group of substances, but sets a comprehensive standard applicable to all branches of economic activity. However, its scope is limited to physical hazards and hazardous substances that fall under the definitions of air pollution, noise and vibration.⁷²³

As a vast majority of ILO Member States did not ratify the Work Environment Convention, it does not have a wide impact. Further, the level of implementation of the Convention's requirements in those

⁷¹³ Leary (1992) at 363.

⁷¹⁴ Convention concerning Safety in the Use of Asbestos, Geneva, 24 June 1986, in force 16 June 1989, available at http://www.ilo.org/dyn/normlex/en/f?p=1000:12100::NO:12100:P12100_INSTRUMENT_ID:312307 (last accessed on 28 February 2019).

⁷¹⁵ Recommendation concerning Safety in the Use of Asbestos, Geneva, 24 June 1986, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312510:NO (last accessed on 28 February 2019).

⁷¹⁶ Convention concerning Safety and Health in Mines, Geneva, 22 June 1995, in force 5 June 1998, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312321:NO (last accessed on 28 February 2019).

⁷¹⁷ Recommendation concerning Safety and Health in Mines, Geneva, 22 June 1995, available at http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312521:NO (last accessed on 28 February 2019).

⁷¹⁸ ILO (2013) at 8.

⁷¹⁹ Memmen (2004) at 68.

⁷²⁰ ILO (2013) at 25.

⁷²¹ ILO (2013) at 26.

⁷²² ILO (2013) at 28.

⁷²³ ILO (2013) at 8.

countries that have become Member to the Convention is low. Implementation problems thus adversely affect how deeply and effectively international labour standards are embedded in national legal systems.⁷²⁴ This problem cannot be resolved through the mechanisms to facilitate implementation and compliance as they are weak and do not allow for sanctions.⁷²⁵

Political opportunities and good practice examples:

- ▶ Integrated approach for all branches of economic activity.
- ▶ Developed under the auspices of the International Labour Organization that is the pioneering institution for social and labour standards.
- ▶ Low chances for promoting ratification by other ILO members

2.1.3.5 American Convention on Human Rights

Table 18: American Convention on Human Rights (adoption: 22 November 1969; in force: 18 July 1978)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Consolidate a system of personal liberty and social justice based on respect for the essential rights of man
Parties	23
Territorial scope	Members of the Organization of American States (OAS)
Resources covered	All resources
Stage of the value chain	All economic activities
Steering tool	Obligation to respect and ensure the exercise of human rights and freedoms by legislative or other measures
Assessment	+

Summary

The American Convention on Human Rights has been developed under the Organization of American States (OAS) and aims to promote the protection of human rights. It has been supplemented by an Additional Protocol that focuses on economic, social and cultural rights. To comply with the Convention and the Additional Protocol, Parties have to take legislative and other measures to ensure the exercise of human rights and freedoms without any discrimination. Main bodies under the OAS to monitor human rights protection and to deal with violations are the Inter-American Commission on Human Rights and the Inter-American Court on Human Rights. Both can hold governments accountable for their violations and have influenced human rights development in the Americas. They can, however, not hold private companies engaged in mining directly accountable.

The Convention and the Additional Protocol are open for ratification by all OAS Member States. However, only 23 joined the Convention and only 16 the Additional Protocol – with countries like the US and Canada not participating. Even lower is the number of States that are accepting the jurisdiction of the Court. Hence, the American Convention on Human Rights could not establish standards applicable in all countries of North and South America.

⁷²⁴ Fidler (2002) at 36.

⁷²⁵ Memmen (2004) at 68.

Overview

Form and legal status: The American Convention on Human Rights⁷²⁶ was adopted on 22 November 1969 and entered into force on 11 July 1979. Out of the 35 Member States to the Organization of American States (OAS), 23 States are Party to the Convention.⁷²⁷ Trinidad and Tobago as well as Venezuela became Party, but later denounced the Convention. The Convention is supplemented by an Additional Protocol in the Area of Economic, Social and Cultural Rights⁷²⁸. It was adopted on 17 November 1988, entered into force on 16 November 1999, and has 16 Parties.⁷²⁹

Objectives: With the Convention, the Parties reaffirm “their intention to consolidate in this hemisphere, within the framework of democratic institutions, a system of personal liberty and social justice based on respect for the essential rights of man” (Preamble).

Territorial scope: The Convention is of regional scope as only OAS Member States can become Party. 23 out of the 35 OAS Members States have already joined the Convention, not including Canada and the United States.

Type of steering tool: The Convention requires State Parties to respect the rights and freedoms under the Convention and to ensure the exercise of these rights and freedoms without any discrimination by legislative or other measures.

Links to extraction, processing and transport of resources

Resources covered: As an international treaty aimed to protect human rights, the Convention does not address specific activities related to specific resources.

Environmental and social impacts covered: Both, the Convention and the Additional Protocol, aim to promote the protection of human rights. Hence, humans are in the centre of these two international instruments. However, the Addition Protocol also guarantees everyone the right to live in a healthy environment and requires State Parties to promote the protection, preservation and improvement of the environment. Hence, environmental impacts are covered indirectly.

Steps of the value chain covered: As an international treaty aimed to protect human rights, the Convention does not address specific activities along the value chain of resources. In general, human rights violations are possible during various steps of the value chain. In regard to the extraction of minerals, human rights issues may occur during licensing and exploration, construction, operation, and closure of mines.⁷³⁰

Content

Relevant obligations for parties: Within the objective of the Convention to promote human rights in the Americas, State Parties have the obligation to respect the rights and freedoms recognized under the Convention and have to ensure all persons can exercise those rights and freedoms without any discrimination (Article 1). To this end, they have to adopt legislative or other measures as may be necessary to give effect to the rights and freedoms (Article 2). This means that states have a duty to respect,

⁷²⁶ American Convention on Human Rights, San Jose, 22 November 1969, in force 18 July 1978, 1144 United Nations, Treaty Series (1979), 143.

⁷²⁷ See http://www.oas.org/dil/treaties_B-32_American_Convention_on_Human_Rights_sign.htm (last accessed 28 February 2019).

⁷²⁸ Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, San Salvador, 17 November 1988, in force 16 November 1999, 28 *International Legal Materials* (1989), 156.

⁷²⁹ See <http://www.oas.org/juridico/english/sigs/a-52.html> (last accessed 28 February 2019).

⁷³⁰ Spohr (2016) at 21 et seq.

a duty to protect and a duty to fulfil human rights. This is of particular importance since mining activities are not only performed by state-owned but also by private sector mining companies.⁷³¹

The Convention guarantees various civil and political rights – among others the right to life (Article 4), the right to human treatment (Article 5), the freedom of association (Article 16), the right to property, and the right to equal treatment (Article 24). Adding to this, the Additional Protocol guarantees economic, social and cultural rights. These include the right to just, equitable and satisfactory conditions of work (Article 7), trade union rights (Article 8), the right to health (Article 10) and the right to a healthy environment (Article 11).

Institutions, reviews and decision-making

Institutions: The Convention has been developed under the umbrella of the Organization of American States (OAS) that has three main organs: the General Assembly as its supreme decision making body, the Permanent Council to manage day-to-day affairs, and the General Secretariat to implement policies made by the other two bodies. To monitor human rights in the Americas, two additional organs have been established under the OAS, the Inter-American Commission on Human Rights and the Inter-American Court of Human Rights.

The **Inter-American Commission on Human Rights** was established in 1959 and derives its mandate from the Charter of the Organization of American States⁷³² (Article 106) and the American Convention on Human Rights (Articles 34 to 51). Its main function is to promote the observance and protection of human rights and to serve as a consultative organ of the OAS in these matters. To this end, the Commission raises awareness of human rights among people, makes recommendations to governments on measures to promote human rights, prepares studies and reports within the scope of its mandate, responds to inquiries made by Member States and takes action on petitions lodged by individuals, groups of individuals or non-governmental organisations. The Commission is composed of seven independent members who serve in a personal capacity.

The **Inter-American Court of Human Rights** was founded 1979 under the American Convention on Human Rights (Articles 52 to 69) to safeguard the rights enshrined in the Convention. It has two roles, one is to interpret the articles of the Convention to give more in-depth guidance and assist governments in the implementation, and the other is to make decisions in cases of individual violations of human rights – if the concerned Member State has accepted the Court's jurisdiction. The Court is made up of seven judges who are elected as independent experts for a term of six years and who may be re-elected once.

Reporting: Neither the Charter of the Organization of American States nor the American Convention on Human Rights provides for a regular institutionalized reporting mechanism from State Parties to one of the intergovernmental bodies. However, the Additional Protocol requires State Parties to submit periodic reports on the progressive measures they have taken to ensure due respect for economic, social and cultural rights (Article 19). Also, the Convention empowers the Inter-American Commission on Human Rights to request the governments of Member States to supply it with information on the measures adopted to promote respect for and defence of human rights (Article 41 (d)).

Evaluation and review: Neither the Convention nor the Additional Protocol provide for an institutionalised process for the evaluation and review of the instruments' overall effectiveness. However, the Convention assigns the Inter-American Commission on Human Rights to submit annual reports to the General Assembly of the Organization of American States (Article 41 (g)). Such reports might trigger further action from the General Assembly.

⁷³¹ Spohr (2016) at 15.

⁷³² Charter of the Organization of American States, Bogota, 20 April 1948, 13 December 1951, 119 United Nations, Treaty Series (1952), 47.

Compliance procedures, remedies and dispute settlement procedures: The Convention provides for different mechanisms to ensure compliance and to deal with violations that can be initiated by persons, Member States and the Inter-American Commission on Human Rights.

Within its mandate to promote **compliance** with the Convention, the Inter-American Commission on Human Rights can make recommendations to governments for the adoption and implementation of progressive measures in favour of human rights. To this end, it can request governments to submit the information necessary for the assessment (Article 41). The Additional Protocol provides more detail for the procedure aimed to oversee implementation and compliance. Based on the regular reports submitted by State Parties, the Inter-American Economic and Social Council examines these reports and adds a summary of the information received in its own annual report to the General Assembly (Article 19).

To **settle disputes** concerning human rights violations, the Convention provides for two procedures, one to deal with individual petitions and one to respond to inter-state communications. For the rights protected under the Additional Protocol, the following procedures are only applicable in case explicitly provided for in the respective article.⁷³³

Under the **individual petition** procedure, any person, group of persons and non-governmental organizations has the right to lodge petitions with the Inter-American Commission on Human Rights in case a State Party is in violation of the Convention (Article 44). The Commission deals with them by declaring them inadmissible, facilitating a friendly settlement or publishing its conclusions on the merits of the case in a report, including non-binding recommendations.⁷³⁴ After that, a case can be brought before the Inter-American Court of Human Rights. As the applicants do not have standing, the concerned States or the Commission need to refer the case to the Court (Article 61). Another requirement is that the state has accepted the contentious jurisdiction of the Court. In most cases referred to the Court, the states in question have been found responsible for gross and systematic human rights violations and ordered to ensure reparation beyond monetary compensation, including guarantees of non-repetition, for victims and their families.⁷³⁵ In comparison with European model, the Commission plays the primary role in the system as individuals cannot file cases directly with the Court, but must submit them to the Commission which then might turn to the Court.⁷³⁶

The procedure for **inter-state communication** allows State Parties to submit communications claiming alleged violations of the Convention by another State Party. However, the procedure requires that both State Parties have recognized the competence of the Commission to receive and examine communications (Article 45) or the jurisdiction of the Court (Article 62).

Stakeholder and public involvement: Individuals, groups of individuals and non-governmental organizations have the right to lodge petitions to the Inter-American Commission on Human Rights in case a State Party violates human rights (Article 44).

Assessment

Coherence with other international treaties and policies: There are several other binding and non-binding instruments to protect human rights in the Americas and internationally.

The American Declaration of the Rights and Duties of Man⁷³⁷ was adopted by the OAS as a non-binding resolution that has gradually acquired binding force. It is for the present considered the authoritative

⁷³³ OHCHR (2003) at 89.

⁷³⁴ IPU and OHCHR (2016) at 82.

⁷³⁵ IPU and OHCHR (2016) at 82.

⁷³⁶ Kälin and Künzli (2009) at 209.

⁷³⁷ American Declaration of the Rights and Duties of Man, Bogota, 2 May 1948, OAS Res. XXX, OAS, adopted by the Ninth International Conference of American States.

interpretation of the fundamental rights of the individual to which the OAS Charter refers and thus binds all OAS Member States.⁷³⁸ Therefore, the Declaration is of legal value for all Member States, while the Convention only binds the Member States that have become a Party.⁷³⁹ There are certain overlap between civil and political rights proclaimed in the American Declaration and the Convention.⁷⁴⁰

Internationally, there are overlaps with the non-binding Universal Declaration of Human Rights⁷⁴¹ that was adopted by the United Nations almost simultaneously with the American Declaration of the Rights and Duties of Man.⁷⁴² Another important international and binding instrument is the International Covenant on Economic, Social and Cultural Rights⁷⁴³. All Parties to the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social, and Cultural Rights are also Party to the International Covenant on Economic, Social and Cultural Rights.

Political weight of the instrument: The Convention and the Additional Protocol aim to promote human rights in the Americas. However, of the 35 OAS Member States, only 23 are Party to the Convention and only 16 are Party to the Additional Protocol. For example, neither the United States nor Canada did sign or ratify the two instruments. This is crucial, as Canada's mining companies are the largest and most active in the world.⁷⁴⁴ Also, Trinidad and Tobago and Venezuela first became Party to the Convention, but later denounced it. And the number of State Parties that are participating in all tools of Inter-American system of human rights – including the contentious jurisdiction of the Court – are few.⁷⁴⁵ Therefore, the Convention and the Protocol could not establish a human rights system applicable for all countries in North and South America.⁷⁴⁶

Also, due to discontent of State Parties with the work of the Commission, its mandate has been changed and weakened. The Commission also has to cope with limited funding and budget problems due to political agendas of the Member States.⁷⁴⁷ Still, as violations of its guarantees can be made the subject of individual complaints to the Commission and the Court, the Convention plays a major role in the Americas.⁷⁴⁸ Work under the Convention and the Additional Protocol could raise public awareness of human rights and did set the standard for legislative processes in the region.⁷⁴⁹

Consideration of small and medium-scale companies: There is no consideration of small and medium-scale companies.

Effectiveness: The effectiveness of the Inter-American Human Rights System is determined by the effectiveness of the work of its two main institutions – the Inter-American Commission on Human Rights and the Inter-American Court of Human Rights. Both institutions have played an important role in responding to systematic and widespread violations of human rights in the Americas.⁷⁵⁰

The work of the Commission changed significantly since its establishment in 1959. While it focused on reports denouncing the human rights situations in selected countries in the beginning, it later started

⁷³⁸ Smis (2009) at 133.

⁷³⁹ IPU and OHCHR (2016) at 81.

⁷⁴⁰ Smis (200) at 134.

⁷⁴¹ Universal Declaration of Human Rights, Paris, 10 December 1948, adopted as General Assembly Resolution 217 A.

⁷⁴² Gonzalez (2009) at 104.

⁷⁴³ International Covenant on Economic, Social and Cultural Rights, New York, 16 December 1966, in force 3 January 1976, 993 United Nations, Treaty Series (1976), 3.

⁷⁴⁴ Viano (2015) at 117.

⁷⁴⁵ Canton (2009).

⁷⁴⁶ Bantekas and Oette (2016) at 270.

⁷⁴⁷ Antkowiak and Gonza (2017).

⁷⁴⁸ Kälin and Künzli (2009) at 49.

⁷⁴⁹ Canton (2009).

⁷⁵⁰ Bantekas and Oette (2016) at 270.

to strengthen its case system parallel to the end of most armed conflicts in the region and the transition toward elected government.⁷⁵¹ In 2016, the Commission received 2.567 petitions in comparison to 435 petitions in 1997.⁷⁵² Over the years, the Commission has contributed to the development of American human rights law through its thematic reports and its handling of petitions.⁷⁵³

The Court can render advisory opinions, interpret the provisions of the Convention and the Additional Protocol, take protective measures and issue sentences on cases of individual violations of human rights as well as inter-State violations of human rights.⁷⁵⁴ In general, there is a better record of compliance with Court decisions than with Commission resolutions.⁷⁵⁵ Also, the Court's interpretations of the Convention have proven influential beyond the confines to a specific case.⁷⁵⁶ However, the Court can only exert its influence in cases where the State concerned accepts its jurisdiction. Otherwise, the case can only be brought before the Inter-American Commission.

At the domestic level, states have taken a number of legislative and institutional measures to bring their systems into conformity with the Convention, either in response to a specific decision or resolution, or independently.⁷⁵⁷

The American Convention on Human Rights and the Additional Protocol do not offer effective remedies – for example to indigenous groups – affected by outsiders because they mandate that claims can be lodged only against State Parties and not against a private party.⁷⁵⁸ Multi-nationals do not have much to fear from the inter-American system for human rights protection.⁷⁵⁹

Political opportunities and good practice examples:

- ▶ Findings of the Commission and of the Court could inspire more progressive human rights legislation in the OAS Member States.
- ▶ Instrument to hold Member States accountable for their activities to promote human rights.

⁷⁵¹ Canton (2009); Gonzalez (2009) at 114.

⁷⁵² See <http://www.oas.org/en/iachr/multimedia/statistics/statistics.html> (last accessed 28 February 2019).

⁷⁵³ Bantekas and Oette (2016) at 265.

⁷⁵⁴ IPU and OHCHR (2016) at 82.

⁷⁵⁵ Gonzalez (2009) at 123.

⁷⁵⁶ Antkowiak and Gonza (2017).

⁷⁵⁷ Bantekas and Oette (2016) at 270.

⁷⁵⁸ Viano (2015) at 117.

⁷⁵⁹ Viano (2015) at 117.

2.1.4 International trade and investment law

2.1.4.1 General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS)

Table 19: General Agreement on Tariffs and Trade General Agreement on Trade in Services (GATS) (current version in force since 1995)

Key aspects	Summary
Form and legal status	In force and binding, with dispute settlement mechanism
Objectives	International regulation of trade in goods and services respectively, with the aim of liberalisation
Parties	164
Territorial scope	Nearly global
Resources covered	GATT: All goods GATS: general obligations for all services, plus sector-specific commitments
Stage of the value chain	GATT: Primarily export/import, but indirectly also production GATS: All, if service
Steering tool	Trade rules determining which standards are allowed
Assessment	GATT: ++ GATS: -

Summary

The GATT is a near-universal international trade agreement regulating trade in goods, with more than 160 parties. Its primary objectives are trade-related, and not of an environmental or social nature. Because its rules impose limits on domestic regulation of trade in goods, the GATT can limit a country's options for making the production of natural resources more sustainable. As the GATT is part of the World Trade Organisation (WTO), its rules are enforceable through complaints by WTO members to the WTO dispute settlement mechanism, which can ultimately lead to trade sanctions. Many other international agreements lack a comparable mechanism. However, the practical effects of the GATT in regulating the production of and trade in natural resources are not clear, because there are unresolved questions of interpretation and empirical effects of international economic law on national politics are difficult to ascertain. The GATS has similar general obligations relating to services but is less relevant than the GATT because environmental and social standards in relation to the extraction of natural resources appear unlikely to be inconsistent with GATS. WTO Members only have limited obligations in relation to national treatment for services and GATS has not played a major role in WTO dispute settlement cases addressing environmental measures.

Overview

Form and legal status: The GATT⁷⁶⁰ is an international treaty first adopted in 1947. With the establishment of the World Trade Organisation (WTO) a slightly modified version became part of the WTO legal framework and subject to the WTO dispute settlement mechanism. The new version, the GATT 1994, entered into force at the beginning of 1995. The GATS⁷⁶¹ is a treaty adopted together with the WTO and also entered into force in 1995. All WTO Members are also parties to the GATT and the GATS.

⁷⁶⁰ Text available online at https://www.wto.org/english/docs_e/legal_e/gatt47_01_e.htm.

⁷⁶¹ Text available online at https://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm.

Objectives: The GATT's objectives are focused on economic development. The preamble lists "raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, *developing the full use of the resources of the world* and expanding the production and exchange of goods" [italics added]. The means it mentions are economic as well, including reducing or abolishing tariffs, discriminatory treatment and other barriers to trade. Moreover, according to the preamble of the WTO Agreement⁷⁶² (WTOA), which is the overarching legal "roof" for the GATT and numerous other agreements, parties recognize that the objectives mentioned in GATT should be fulfilled "while allowing for the *optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so* in a manner consistent with their respective needs and concerns at different levels of economic development". The GATT's objectives are primarily economic in character, with a reference to sustainable development.

The GATS is another agreement in the legal framework of the WTO. Like the GATT, the GATS is not primarily aimed at environmental or social objectives, but at trade-related objectives and may limit national measures taken for environmental or social purposes relating to the provision of services that are linked to producing or processing natural resources (e.g. mining).

Territorial scope: WTO membership is, according to Art. XII of the World Trade Agreement, open to all states and certain separate customs territories such as the EU. Given the number of WTO Members, the territorial scope of the GATT and GATS are nearly global.

Type of steering tool: With regard to natural resources, the most relevant GATT provisions are those prohibiting most types of export and import restrictions as well as discrimination against imported products, a most favoured nation clause and rules on the reduction of tariffs. GATS is nearly identical to GATT concerning its decision-making procedures and some of the main obligations such as a most-favoured nation obligation and a general exemption.

Links to extraction, processing and transport of resources

Resources covered: There is no limitation as to the type of resources covered; all tradable and physically tangible natural resources are goods and covered by the GATT. In principle the same goes for GATS in relation to services.

Environmental and social impacts covered: The GATT addresses trade impacts and is not primarily concerned with environmental or social impacts. However, its provisions are relevant because they require that all domestic regulation and measures comply with its trade rules. These conditions also apply to national regulation and measures aimed at having an environmental or social impact. The GATT is not limited to any specific environmental or social impact. The same goes for GATS.

Steps of the value chain covered: The GATT primarily addresses international trade in goods. It is therefore not of primary relevance to either the production of natural resources or their subsequent use in other products. However, the GATT is relevant for all national provisions and measures regulating the import, export, marketing, technical requirements or labelling of goods that at the same time contain rules on the production process of natural resources. The same goes for other stages of the value chain. For example, if a country adopted a regulation allowing only the import of a resource produced in production sites certified under a certain international standard, such regulation would, in principle, be subject to the GATT rules. GATS, conversely, relates, in principle, to more steps of the value chain, since it covers, according to Art. I.2 (a) services „from the territory of one Member into the territory of any other Member“ as well as those „by a service supplier of one Member, through commercial presence in the territory of any other Member“. Therefore, if a company based in one WTO

⁷⁶² Text available online at https://www.wto.org/english/docs_e/legal_e/04-wto_e.htm.

Members were to engage in mining natural resources in another WTO Members, this would be covered by GATS.

Content

Relevant obligations for parties: The GATT contains a number of core provisions that can become relevant for regulations on trade in natural resources. Basically, it contains a number of obligations on WTO Members and – in Art. XX GATT – an exception clause. A WTO Member only acts inconsistently with GATT if (i) it violates a GATT clause and (ii) the GATT violation is not justified under Art. XX GATT.

The “most favoured nation” clause under Art. I GATT provides that any advantage, privilege or similar that a WTO Member grants to another WTO Member must also be granted to all other WTO Members. This clause would become relevant in cases where e.g. one WTO Member wanted to treat imports of natural resources from one WTO Member more favourably than those from third Members, because the natural resource in question was produced in a more environmentally or socially responsible manner.

Art II GATT is the basis for the tariff schedules that WTO Members have agreed upon. As these tariff schedules have been fixed for different products, a WTO Member is not allowed to impose additional tariffs e.g. for natural resources that are produced in a particularly environmentally or socially harmful manner.

Art. III requires WTO Member to treat imported products “no less favourably” than domestic “like products”. In this respect, Art. III:2 GATT prohibits discrimination against imported products in respect of “taxes or internal charges”, whereas Art. III:4 GATT prohibits such discrimination with respect to “all laws, regulations and requirements affecting” the “internal sale, offering for sale, purchase, transportation, distribution or use” of like products. Of the two paragraphs, Art. III:4 GATT is probably practically more relevant in relation to sustainability requirements for traded natural resources.

Yet, what exactly is a like product and, in particular, whether two products that are distinct because one was produced in a different manner (e.g. in a more environmentally or socially responsible way) than the other, is the subject of a long-standing debate among WTO lawyers. The topic is often discussed under the heading of the legality of “process and production methods” (PPMs) in WTO law.⁷⁶³ The WTO Appellate Body has since the Japan – Alcoholic Beverages case held that four criteria are relevant for determining the likeness of two products: physical characteristics, end use, tariff classification and consumer taste and habits in relation to the good in question.⁷⁶⁴ At the same time, the Appellate Body has also stressed that the likeness of products needs to be decided upon on a case-by-case basis. The criteria do not allow a firm conclusion on whether natural resources that are not different from each other in their physical attributes, their uses or their custom classification, but only differ in the way that they were produced, would be “like”. Potentially, consumer preferences differ as a function of the degree to which a natural resource is produced sustainably. However, would this be sufficient for two products not to be like? The Appellate Body has so far not decided this issue explicitly; however in one case, a Panel held that tuna fished using one method, which was more dolphin friendly, was „like“ tuna fished with other methods.⁷⁶⁵ This indicates that different production processes would not be seen as making two products “unlike” in WTO dispute settlement.

⁷⁶³ See for example Choi (2003); Conrad (2011).

⁷⁶⁴ See Appellate Body, Japan – Alcoholic Beverages, WT/DS 8, 10, 11/AB/R, section H 1 a.

⁷⁶⁵ See United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, WT/DS381/R, paras 7.213ff; the decision was not appealed by any of the parties as far as the interpretation of “like products” was concerned, which is why the Appellate Body did not take a decision on the matter, see United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, WT/DS381/AB/R, para. 202. The decision was about Art. 2.1 TBT which also contains a prohibition to treat imported products less favourably than domestic “like products”.

Art. XI:1 GATT prohibits WTO Members from adopting import or export restrictions other than “duties, taxes or other charges”. Consequently, an import ban by WTO Member on a natural resource coming from another WTO Member would normally⁷⁶⁶ constitute a violation of this article.

Art. XX GATT is the exception provision in GATT. It allows WTO Members to take measures otherwise inconsistent with GATT for a number of purposes, including if they are “necessary to protect public morals”, (Art. XX (a)), “necessary to protect human, animal or plant life or health” (Art. XX (b)), or “relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption” (Art. XX (g)). With regards Art. XX (g), the WTO dispute settlement bodies have so far embraced a broad interpretation of the term exhaustible natural resources, including minerals⁷⁶⁷. Natural resources like turtles⁷⁶⁸, or clean air⁷⁶⁹ have also been treated as exhaustible natural resources. The “relating to” criterion in Art. XX (g) GATT, as interpreted in WTO case law, is generally easier to satisfy than the “necessary” criterion in Art. XX (b) GATT. Another question that may become relevant when e.g. resources in the sea bed are mined, is whether the various sub-paragraphs of Art. XX also cover measures relating to resources not located within the territory of the respective WTO Member. While the WTO dispute settlement bodies have never decided this question explicitly, they have accepted that a measure aimed at protecting sea turtles, living both within and outside of the territory of the Member State taking the measure comes within the purview of Art. XX (g).⁷⁷⁰

In addition, measures need to comply with the introductory “chapeau” of Art. XX GATT, which requires that measures “are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade”. Art. XX GATT has been invoked in WTO dispute settlement a number of times; however, there were few cases where the dispute settlement bodies decided that a Member’s measure was actually justifiable under this article.⁷⁷¹ Mostly, the measures are held to meet the requirements of the individual sub-paragraphs, but fail to meet the requirements in the introductory clause to Art. XX GATT, the so called chapeau. It requires that “measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade”.

The case law on the interpretation of Art. XX GATT is not very consistent,⁷⁷² which makes it difficult to predict what kinds of measures relating to natural resources could be justified. Yet, it is likely that *bona fide* measures aimed e.g. at using fewer natural resources would fall within the remit of Art. XX (g) GATT. In a case involving Chinese export restrictions for certain mineral resources, the WTO’s Appellate Body accepted that these measures would come within the scope of Art. XX (g), even though they ultimately could not be justified under it.⁷⁷³ Other measures relating to mining (e.g. concerned with workers’ safety) could also fall under Art. XX (a) or XX (b).

⁷⁶⁶ Art. XI:2 recognises a limited number of situations in which export or import restrictions other than tariffs can be adopted; however, none of these situations is relevant for the issue discussed in this report.

⁷⁶⁷ See China – Measures Related to the Exportation of Various Raw Materials, WT/DS 394, 395, 398/R, para. 7.363.

⁷⁶⁸ See United States — Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R, para. 130–131.

⁷⁶⁹ See United States — Standards for Reformulated and Conventional Gasoline, WT/DS2/R, para. 6.37.

⁷⁷⁰ See United States — Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R, para. 133.

⁷⁷¹ The measures justified were the measures at issue in United States – Import Prohibition of Certain Shrimp and Shrimp Products (WT/DS58/AB/RW) after the US had reviewed in and the ban on asbestos product of the EU, under review in European Communities – Measures Affecting Asbestos and Asbestos-Containing Products (WT/DS135/AB/R).

⁷⁷² See for example Du (2010) at 1095; Guan (2014) at 221.

⁷⁷³ See for example the China — Measures Related to the Exportation of Rare Earths, Tungsten, and Molybdenum, WT/DS431, 432, 433/AB/R, paras. 5.142ff. In this case, export restrictions for certain mineral resources were at issue; the Appellate Body accepted that these measures would come within the scope of Art. XX (g), even though they ultimately could not be justified under it.

GATS is different from the GATT as it addresses services and not goods. At the same time, the main obligations in GATS are very similar to GATT. Notably, Art II GATS contains a most-favoured nation obligation which is similar to Art. I GATT, and Art. XIV GATS contains a general exemption in wording very similar to Art. XX GATT. Therefore many of the insights about GATT apply with respect to GATS as well.

In addition to the general obligations contained in GATS, WTO Members have assumed specific commitments concerning services; these are sector-specific and set forth in so called schedules of commitments (see Art. XX GATS). In these schedules, WTO Members have made individual commitments with regard to one or several of the modalities of trade in services as defined in Art. I GATS for specific sectors: supplying a service from the territory of one Member into the territory of another Members or in the territory of one Member to consumers of another Member or by a supplier of one Member through commercial presence in the territory of another Member or by cross-border migration of natural persons that supply services. To the extent that a WTO Member has made a specific commitment for services, it is prohibited from restricting these services (Art. XVI GATS). It also has to grant services and services suppliers from other WTO Members treatment no less favourable than like domestic services, echoing the respective provision for goods in Art. III GATT; however WTO Members can negotiate in their schedules limitations and conditions for national treatment (see Art. XX:1 GATS).

Besides the exception clauses in the GATS and GATT, Art. IX:9 of the WTO Agreement allows WTO Members to apply for a so-called waiver, i.e. a decision by the WTO's Ministerial Conference that the respective WTO Member is allowed to not fulfill certain of its WTO obligations. Yet, given that the WTOA indicates that a decision to grant a waiver requires consensus among WTO Members, it is relatively rare for a waiver to be granted and waivers are often only granted for a limited amount of time.⁷⁷⁴ One waiver was granted for the Kimberly Process Certification Scheme for Rough Diamonds, which as last extended in July 2018.⁷⁷⁵

Institutions⁷⁷⁶: The WTO Ministerial Conferences take place every two years. Otherwise, the WTO has a complex decision-making structure, including a General Council, various committees in charge of various agreements and issues, a Secretariat, and a dispute settlement mechanism. The functioning of GATT is overseen mainly by the Council on Trade in Goods and the functioning of GATS is supervised by the Council for Trade in Services; however, there are some other committee whose work can touch upon certain aspects of the functioning of GATT and GATS, such as the Committee on Trade and Environment. Decision-making is, in practice, by consensus, even though some provisions allow decisions by a qualified majority of WTO Members.

Reporting: WTO Members do not have to regularly report on their implementation of the WTO agreements. However, they are subject to Trade Policy Reviews (see below) and can be brought before the WTO dispute settlement in cases of alleged non-compliance with the WTO legal framework (see also below).

Evaluation and review: GATT is not subject to regular review; generally, negotiating or renegotiating treaties in the WTO framework has been a very slow process in the past few years, given the consensus-based decision-making of the WTO and its broad membership.

GATS provides for negotiations in several articles, the so-called "built-in" agenda. Article XIX commits members to successive rounds aimed at achieving a progressively higher level of liberalization. In addition, several GATS Articles provide for issue-specific negotiations.⁷⁷⁷

⁷⁷⁴ The waivers granted each year are listed in the WTO's annual reports, available at https://www.wto.org/english/res_e/reser_e/annual_report_e.htm.

⁷⁷⁵ See WTO General Council, Annual Report 2018, WT/GC/200, p. 9.

⁷⁷⁶ Details on the institutions and decision-making procedures of the WTO are defined in the WTO Agreement.

⁷⁷⁷ https://www.wto.org/english/tratop_e/serv_e/gatsqa_e.htm#14.

Compliance procedures, remedies and dispute settlement procedures: Although the WTO does not have a formal “compliance” procedure, the trade policy of WTO Members is subject to regular review.⁷⁷⁸ The Trade Policy Reviews (TPRs) are within the responsibility of the Trade Policy Review Body where all WTO Members are represented. TPRs entail a report by the respective WTO Member, a report of the Secretariat about the trade policy of the respective WTO Member as well as a meeting allowing WTO Members to direct questions to the Member under review; the minutes of the review meeting are published. The TPR extends to all areas of trade policy and all WTO agreements, including GATT and GATS. The frequency of TPRs depends on the size of the economy of the respective WTO Member.⁷⁷⁹

Moreover and probably more importantly, the WTO also has a dispute settlement mechanism, composed of Panels and the Appellate Body. The details are contained in the WTO Dispute Settlement Understanding⁷⁸⁰ (DSU), contained in Annex 2 of the WTOA. Accordingly, every WTO Member can bring a complaint before the WTO dispute settlement bodies, if it considers that another WTO Member has violated WTO law. If mandatory consultations between the WTO Members fail, the matter can be brought before a Panel which investigates matters of fact and law. If one party to the dispute holds the view that the Panel has applied WTO law incorrectly, it can bring the matter before the Appellate Body which only reviews matters of law. Panel and Appellate Body decisions have to be adopted by the Dispute Settlement Body of the WTO, where all Members are represented; adoption is quasi-automatic, given that a dispute settlement decision will be adopted unless there is a consensus not to adopt it. If a WTO Member is found to have acted inconsistently with WTO law, it has a certain time for bringing its measures in conformity with WTO law. If the Member who brought the complaint is of the view that the other Member’s measure is still not in line with WTO law, it can bring the matter before the dispute settlement bodies again. If a WTO Member fails to act in conformity with WTO law within a reasonable period of time, the WTO dispute settlement bodies can, authorise the other WTO Member (that brought the initial complaint) to suspend certain trade concessions it made, normally by imposing additional tariffs on products from the non-compliant WTO Members up to a certain overall amount.

Stakeholder and public involvement: The WTO is not an organisation very open to stakeholder and public involvement; indeed, even some of its Members have complained about their lack of involvement in some of the negotiation processes in the past.⁷⁸¹ Observer status is only granted to states or international organisations.⁷⁸² In 1996, the WTO adopted “Guidelines for arrangements on relations with Non-Governmental Organizations”⁷⁸³. Accredited civil society representatives are allowed to participate in plenary sessions of Ministerial Conferences;⁷⁸⁴ however, they are not allowed to attend other WTO meetings (e.g. those of committees)⁷⁸⁵. While some avenues for the WTO to interact with civil society have been created (e.g. public fora)⁷⁸⁶, the WTO is hence less open for civil society involvement than other international organisations. At the same time, it has been found that while “business association do not have privileged access, they can still quite effectively push commercial interests”⁷⁸⁷, notably because they have more resources to do so than civil society organisations.

⁷⁷⁸ The details of the Trade Policy Review mechanism are contained in Annex 3 of the WTO Agreement, available at https://www.wto.org/english/docs_e/legal_e/29-tprm.pdf.

⁷⁷⁹ The four WTO Members with the biggest share in world trade are subject to review every two years, and the frequency is progressively less for WTO Members with a smaller share.

⁷⁸⁰ Text available online at https://www.wto.org/english/docs_e/legal_e/28-dsu_e.htm.

⁷⁸¹ These complaints were linked to so called “green room” negotiations, in which only a limited number of countries were invited to take part, see for example Jones (2009); Kwa (2002).

⁷⁸² See list at https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm#observer.

⁷⁸³ Document WT/L/162, available at https://www.wto.org/english/forums_e/ngo_e/guide_e.htm.

⁷⁸⁴ See WTO, “Relations with Non-Governmental Organizations/Civil Society”, available at https://www.wto.org/english/forums_e/ngo_e/intro_e.htm.

⁷⁸⁵ See Steffek/Ehling (2008) at 102.

⁷⁸⁶ See Steffek/Ehling (2008).

⁷⁸⁷ See Steffek/Ehling (2008) at 101.

Assessment

Coherence with other international treaties and policies: WTO law does not set or require environmental or social standards. Instead, it regulates which environmental and social standards that are set by domestic or international law are permissible under WTO law. There is a long-standing debate about the relationship between WTO law on the one hand and other norms of international law, in particular multilateral environmental agreements, on the other hand. This debate has, in particular, been motivated by the fact that the WTO has a dispute settlement system that includes the possibility of enabling trade-related sanctions, whereas multilateral environmental agreements typically do not have a similar mechanism. Hence, there have been concerns that the WTO dispute settlement bodies could consider a measure WTO inconsistent that a WTO Member has taken pursuant to its obligations under a multilateral environmental agreement (MEA). Despite the body of environment-related decisions, the Appellate Body has so far not directly addressed this issue. Hence, there is a lively academic debate on questions such as whether WTO law would take precedence over international environmental law in a case of conflict and whether WTO dispute settlement bodies would have the competence to rule on the matter if this also meant taking a decision on non-WTO law.⁷⁸⁸ In any case, the Appellate Body has on occasions referred to MEAs to inform its decision on certain terms of WTO law or the application of certain provisions.⁷⁸⁹ The relationship between MEAs and WTO law has been the subject negotiations at the WTO, which have, however, so far not produced any tangible result in terms of changes in WTO law.⁷⁹⁰

Political weight of the instrument: WTO law, of which the GATT and GATS are part, is central in governing trade relations between 164 parties, including all major trading countries and the EU. Given the possibility of invoking the WTO dispute settlement mechanism in case one country considers another country to violate GATT or GATS and the fact that a successful complaint before the WTO dispute settlement mechanism may lead to trade sanctions, WTO law is also likely among the most effective international legal agreements. GATT rules do impose certain limits on regulation by WTO Member States concerning trade in natural resources; however, the vague nature of some of its core provisions combined with the existence of exemptions, which can in principle be used to justify certain environmental measures, means that WTO Members have a certain leeway when designing resource-related regulation.

GATS could become relevant as well if a WTO Member imposed certain limitations on a company from another WTO Member, which wishes to undertake activities like mining or processing natural resources in its territory. For example, if a foreign company was made subject to more stringent environmental requirements in order to obtain a permit for mining certain resources than applicable to domestic companies, this could amount to a violation of the national treatment obligation in GATS, in case a WTO Member has assumed specific commitments with regard to mining. However, environmental and social standards in relation to the extraction of natural resources appear unlikely to be inconsistent with GATS. WTO Members only have limited obligations in relation to national treatment for services and GATS has not played a major role in WTO dispute settlement cases addressing environmental measures.

Consideration of small and medium-scale companies: There are no specific rules for SMEs.

Effectiveness: There is a long standing and controversial debate about the impact of the WTO, including the GATT more specifically, on domestic policy-making, including environmental policy-making. It is methodologically difficult to offer firm conclusions on this question on the basis of empirical research. The methodological difficulties are linked to the fact that the adoption of specific policies is

⁷⁸⁸ See for example Marceau (2001); Vranes (2009).

⁷⁸⁹ See for example United States — Import Prohibition of Certain Shrimp and Shrimp Products, WT/DS58/AB/R, para. 166 ff.

⁷⁹⁰ Documents from this negotiations area available at WTO, Negotiations on Trade and Environment, https://www.wto.org/english/tratop_e/envir_e/envir_negotiations_e.htm.

normally a result of political bargaining processes and therefore it is difficult to isolate the impact of any single factor (e.g. commitments resulting from GATT). Moreover, showing a negative impact of WTO law on environmental-policy making requires showing a counter-factual, i.e. that more environmentally ambitious policies would have been adopted in the absence of WTO law.⁷⁹¹ These methodological difficulties may be a reason for why there are relatively few in-depth studies of the matter. Van Harten and Scott (2016) conducted more than 50 interviews in Canada, mostly with current or former officials in ministries with an environmental or trade mandate; they conclude that ministries have changed decision-making procedures to account for trade and investment-related obligations; however, they do not find that through such procedures environmental regulations have generally become less ambitious. Krikorian (2012) assesses the impact of the WTO dispute decisions on domestic policy-making in the US and Canada. In terms of methods, she undertakes a “‘before and after’ snapshot of the domestic regulatory framework at issue in a dispute”, combined with a qualitative assessment of the response of public officials. She concludes that the WTO dispute settlement system has had a “relatively narrow and limited impact on national politics” (with the potential exception of WTO decisions on US trade remedies).⁷⁹² Conversely, Lydgate (2012) researches the influence of WTO law on the EU’s sustainability requirements for biofuels. She concludes that WTO law had negative impact on the regulatory ambition of the EU legislation; this is based on an analysis of the EU Parliament’s drafts of the sustainability requirements combined with a finding of pressures imposed through informal complaints about the criteria and evidence from past disputes on environmental regulations.

In sum, there is mixed evidence of the impact of the WTO on environmental decision-making at the national level.

Political opportunities and good practice examples:

- ▶ The relationship between GATT and domestic or international environmental and social regulation remains unclear. There are several approaches for addressing the issue:
- ▶ One approach is to clarify the relationship and GATT compatibility *at a general level* in order to ensure that bona fide national or social regulation relating to the use of natural resources will be considered to be in line with GATT. Ideally, amendments to the text of WTO law would have to be agreed upon by WTO Members. Yet the negotiations about trade and environment have been going on at the WTO for several years without significant progress and the WTO’s consensus-oriented decision-making structures make reaching agreement difficult. Therefore, changes in GATT that would make it more environmentally friendly are not to be expected any time soon.
- ▶ In principle, the relationship could be also addressed by the Appellate Body and *evolve through future case law*. However, this would require a suitable case to reach the Appellate Body, and the existing case law produced by the dispute settlement bodies is so far not very clear as to the interpretation of the relevant WTO provisions. Therefore, it is doubtful whether the open questions will be clarified any time soon by the Appellate Body. Even if the Appellate Body held a clear position on WTO law in this regard, this would not necessarily mean that parties to a MEA would agree with it.
- ▶ In bilateral and regional trade agreements outside of the WTO some attempts have been made to ensure that obligations from trade agreements do not limit the environmental policy space for parties. For example, Art. 24.4 of the Comprehensive Economic and Trade Agreement between the EU and Canada stipulates: “The Parties acknowledge their right to use Article 28.3 (General exceptions) in relation to environmental measures, including those taken pursuant to multilateral environmental agreements to which they are party.” The CETA general exception provision is modelled on Art. XX GATT and even incorporates it for some parts of CETA. Hence, Art. 24.4 CETA can be

⁷⁹¹ For methodological difficulties in studying the impact of international economic law on domestic policy-making, see for example Tienhaara (2011) at 607 et seq.; Tietje/Baetens/Valkanou (2014) at 41.

⁷⁹² Krikorian (2012) at 12 et seq.

seen as an attempt to avoid the kind of lack of clarity that exists with regard to the relationship between GATT and multilateral environmental agreements and to clarify that the CETA would not prevent its parties from taking measures to comply with MEAs. However, this clause has not been tested in dispute settlement; moreover, it does, of course, not change GATT and is only applicable in the relations between the EU and Canada.

2.1.4.2 Agreement on Technical Barriers to Trade

Table 20: Agreement on Technical Barriers to Trade (adoption: 15 April 1994; in force: 1st January 1995)

Key aspects	Summary
Form and legal status	Binding and in force
Objectives	Reduction of trade restrictions unless necessary, focused on technical barriers;
Parties	All WTO Members
Territorial scope	Global
Resources covered	Goods, meaning all products, including industrial and agricultural products
Stage of the value chain	All stages can be covered. Focus on access to market (import) and treatment on the market
Steering tool	Rules on preparation, adoption and application of technical regulations and standards and procedures for assessment of conformity with respect to the first two
Assessment	O

Summary

The Agreement on Technical Barriers to Trade (TBT)⁷⁹³ facilitates international trade, specifying requirements of the General Agreement on Tariffs and Trade (GATT) in a different systematic setup. Environmental or social concerns are not explicitly addressed by the TBT but can legitimate trade restrictions similar to the general idea of GATT and the WTO regime.

Overview

Form and legal status: The TBT is an international treaty of the WTO Members. It entered into force on 1 January 1995 with the establishment of the World Trade Organization (WTO). It is part of the Annex 1A to the Marrakesh Agreement which established the WTO.

Objectives: The aim of the TBT is to standardize trade restricting measures by encouraging the development of international and regional standards and conformity assessment systems (Articles 2.6, 5.5 and Annex 3 TBT). To this aim parties should adapt to existing standards, when implementing new ones (Articles 2.4, 5.4 and 9 TBT) and should accept technical regulations or results of conformity assessment procedures by other parties as long as they meet their own provisions (Articles 2.7 and 6 TBT). According to the TBT Members should reduce and abstain from establishing trade restricting measures, unless such measures are necessary, e.g. in order to protect human health, animals or plant life or the environment (para. 5 and 6 of preamble).⁷⁹⁴ Although the protection of social and environ-

⁷⁹³ Agreement on Technical Barriers to Trade, Marrakesh, 15 April 1994, in force 1 January 1995.

⁷⁹⁴ WTO Secretariat, "The WTO Agreements Series, Technical Barriers to trade", 2014, p. 11.

mental aspects is no objective of the TBT, their importance is strengthened by the fact, that the Agreement Establishing the World Trade Organization of 1994 states “the objective of sustainable development, seeking both to protect and to preserve the environment and to enhance the means for doing so” (para. 2 preamble).⁷⁹⁵

Territorial scope: The TBT applies globally among all WTO Members for a total of 164 states.⁷⁹⁶

Links to extraction, processing and transport of resources

Resources covered: All products, including industrial and agricultural products, are subject to the provisions of the TBT (Art. 1.3 TBT), when traded between member countries. They can be as different as toys, electronics, food, and beverages.⁷⁹⁷ In relation to the GATT, which deals with goods, the TBT is a specialised treaty, as far as it concerns the preparation, adoption and application of technical regulations and of standards and procedures for assessment of conformity with Technical Regulations and Standards (cf. General interpretative note to Annex 1A of WTO-Agreement, Multilateral Agreements on Trade in Goods). This means that generally all resources fall under the regime of the TBT, whether they are grown, mined or drilled and whatever further processing they go through.

Environmental and social impacts covered: The TBT itself does not explicitly address environmental and social impacts. Members can foresee measures necessary to ensure the quality of their exports, or for the protection of human, animal or plant life or health. In this respect environmental and social aspects with their trade restrictive impact are legitimate interests.

The WTO's Committee on Trade and Environment (CTE) explains the status of environmental issues in the WTO context. It stresses, that a balance is needed, between safeguarding market access and protecting the environment. The balance should guarantee that measures are consistent with WTO law, rules take into account capabilities of developing countries and meet the legitimate (environmental) objectives of the importing country. This is considered necessary, because environmental requirements could impede trade and even be used as an excuse for protectionism (“green protectionism”).⁷⁹⁸

In order to fall under the TBT environmental and social aspects must be addressed by technical regulations, standards and procedures to assess the conformity with technical regulations and standards:

A **technical regulation** is a document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method. (Art. 1, Annex 1 TBT). Type and product coverage of technical regulations may be specific, for example relating to maximum permitted levels of lead in paint used on toys. Or they may be more general, involving the establishment of criteria for the labelling of organic agricultural products, or emission requirements for diesel engines. They have in common that they are established through some form of government intervention.⁷⁹⁹ Members can prepare, adopt and apply technical regulations to fulfil legitimate objectives. Such are, among others the protection of human health or safety, animal or plant life or health, or the environment. Regulations must not be more trade-restrictive than necessary and members must take account of the risks non-fulfilment would create (Art. 2.2 TBT). When implementing technical regulations, members shall use existing or almost completed international standards as a basis. Again, exceptions can be made when these would be ineffective or inappropriate for the fulfil-

⁷⁹⁵ Cf. United States - Import prohibition of certain shrimp and shrimp products, report of the Appellate Body, 12 October 1998 (WT/DS58/AB/R), para. 185.

⁷⁹⁶ WTO Secretariat, “The WTO Agreements Series, Technical Barriers to trade”, 2014, p. 11

⁷⁹⁷ WTO Secretariat, “The WTO Agreements Series, Technical Barriers to trade”, 2014, p. 15.

⁷⁹⁸ WTO Secretariat, “The Committee on Trade and Environment (‘regular’ CTE) - Environmental requirements and market access: preventing ‘green protectionism’”, 2017.

⁷⁹⁹ WTO Secretariat, “The WTO Agreements Series, Technical Barriers to trade”, 2014, p. 14.

ment of the legitimate objectives pursued, for example because of fundamental climatic or geographical factors (Art. 2.4 TBT). If a technical regulation is prepared, adopted or applied and may have a significant effect on trade of other Members, Members, upon request, have to justify their regulation. However, if it follows one of the legitimate objectives explicitly mentioned in Art. 2.2 TBT and is in accordance with relevant international standards, it shall be rebuttably presumed not to create an unnecessary obstacle to international trade (Art. 2.5 TBT).

A **standard** is a document approved by a recognized body that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking, or labelling requirements as they apply to a product, process or production method (Art. 2, Annex 1 TBT). Opposed to regulations, standards can be developed by a large number of different entities, including both governmental and non-governmental bodies. Although they are not mandatory, they are, however, often used as the basis for both technical regulations and conformity assessment procedures and, in such cases, the requirements set out in the standard become mandatory by virtue of government intervention (via technical regulations or conformity assessment procedures).⁸⁰⁰ The implementation of standards itself is not restricted by the TBT but equivalent to the rules for technical regulations, standardizing bodies shall use existing or almost completed international standards.

A **conformity assessment procedure** is any procedure used, directly or indirectly, to determine whether relevant requirements in technical regulations or standards are fulfilled. (Annex 1, Art. 3 TBT). This includes, inter alia, procedures for sampling, testing and inspection; evaluation, verification and assurance of conformity, registration, accreditation and approval as well as their combinations. The implementation of conformity assessment procedures itself is not bound to any provisions, as they result from existing technical regulations or standards. Similar to the rules for technical regulations, members shall ensure, that if relevant guides or recommendations issued by international standardizing bodies exist or are almost completed, they are being used, where a positive assurance is required that products conform with technical regulations or standards. Exceptions can be made where these guides or recommendations are inappropriate for the Members concerned for reasons such as the protection of human health or safety, animal or plant life or health, or the environment; fundamental climatic or other geographical factors and others. (Art. 5.4 TBT).

These provisions lead to a need for all WTO Members, to constantly adjust their regulations, standards and conformity assessment procedures to international standards, because a deviation needs justification. This means that efforts to strengthen the consideration of environmental and social issues can be limited by TBT rules. If they are already based on those legitimate objectives, that members strive to achieve, members cannot exceed these standards, unless they prove them ineffective or inappropriate.⁸⁰¹ At the same time environmental and social issues theoretically can be promoted by international standards. However, this is not the focus of the TBT provisions.

Developing country members must be treated differently under the TBT to promote their export and production with respect to their situation. When implementing the provisions of the TBT, Members shall show consideration to the situation of developing countries. Their financial situation and development status obliges developed countries to ensure that technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to exports from developing countries (Art. 12.3 TBT). Developing countries are allowed to deviate from international standards and instead adopt certain technical regulations, standards or conformity assessment procedures aimed at preserving indigenous technology and production methods and processes compatible with their development needs (Art. 12.4 TBT). Upon request of developing country Members, measures shall be taken

⁸⁰⁰ WTO Secretariat, "The WTO Agreements Series, Technical Barriers to trade", 2014, p. 14.

⁸⁰¹ Herrmann et al. (2007) at 252 f.

to ensure that international standardizing bodies examine the possibility of, and, if practicable, prepare international standards concerning products of special interest to developing country Members (Art. 12.6 TBT). Finally, the Committee on Technical Barriers to Trade is enabled to grant specified, time-limited exceptions in whole or in part from obligations under this Agreement to developing country members (Art. 12.8 TBT).

Steps of the value chain covered: The TBT can apply to all stages of the value chain. However, as the TBT deals with trading of goods, technical regulations, standards and conformity assessment procedures can only address the final goods to be exported. The question, whether technical regulations and standards have to be strictly product-related in the sense, that they have to refer to the final product physically (i.e., the production method leaves a trace in the final product, for example extracting means in a mine leaving residue in the ore) or whether measures can refer to unincorporated elements in connection with the product (for example, whether an ore has been produced from sustainably managed minerals) is still subject to debates.⁸⁰² The terms used here are **prPPM (product-related processes and production methods)** and **npr PPM (non-product-related processes and production methods)**. The definitions of technical regulations and standards talk about “product characteristics or their related processes and production methods (...) also (...) terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method” (Annex 1m Articles 1 and 2 TBT). This could lead to the conclusion, that generally, measures restricting trade have to be prPPM whereas labelling measures as a softer form of restrictions can also take into account npr PPM. Still, this is not common sense and has not yet been settled by WTO bodies. Anyhow the use of so called “eco-labels” (labelling products according to environmental criteria) by governments, industry and non-governmental organizations (NGOs) is increasing.⁸⁰³

Content

Type of steering tool: The TBT aims at prohibiting most types of export and import restrictions as well as discrimination against imported products caused by technical regulations, standards and procedures to assess the conformity with technical regulations and standards. If WTO Members intend to take into account environmental or social issues in adopting technical regulations or standards, they need to obey the following requirements of justification (1. trade restricting measures only for legitimate objectives. 2. Checking the risk of non-fulfilment. 3. Use of international standards. 4. Deviation only, if the standard is inappropriate (or ineffective) for fulfilment of the objective for certain reasons). If measures by WTO Members do not comply with international standards, they need to follow further provisions that contain explanation and information duties towards other WTO Members and WTO bodies and the duty to take comments into account. This shall be explained in the following chapter “relevant obligations for parties”.

Relevant obligations for parties: If WTO Members draft a standard the TBT requires the following procedure of implementation: Whenever a relevant international standard does not exist or the technical content of a proposed technical regulation is not in accordance with the technical content of relevant international standards, and if the technical regulation may have a significant effect on trade of other Members, Members shall publish notices about their strived for measure, notify other members of the content of the measure, provide copies and allow time and comments as well as discussion and take comments in account. As an exception to that, where urgent problems of safety, health, environmental protection or national security arise or threaten to arise for a Member, that Member may omit especially the step of publishing a notice and then notify immediately of the content and follow the further steps. Central government bodies have to make sure, that local government bodies also comply with

⁸⁰² WTO Secretariat: “The Committee on Trade and Environment (‘regular’ CTE) - Labelling - The ‘PPM’ Problem”, 2017, available on the internet at: https://www.wto.org/english/tratop_e/envir_e/labelling_e.htm (last accessed on 28.02.2019).

⁸⁰³ WTO Secretariat: “The Committee on Trade and Environment (‘regular’ CTE) - Labelling - The ‘PPM’ Problem”, 2017, available on the internet at: https://www.wto.org/english/tratop_e/envir_e/labelling_e.htm (last accessed on 28.02.2019).

this procedure (Articles 2.9, 2.10 and 3.2 TBT). Nearly identical provisions exist for conformity assessments (Articles 5.6, 5.7 and 7.2 TBT). Also, the preparation, adoption and application of standards has to follow the “Code of Good Practice” laid out in Annex 3 of TBT, which provides a detailed procedure. Here also, notification and information duties exist and WTO Members shall give other Members the opportunity to comment and then take these comments into account. Moreover, the TBT Committee has established a Code of Good Regulatory Practice (GPR). Transparency and consultation are its fundamental components.⁸⁰⁴ It requires similar procedures as explained above, whenever trade restrictions are being established.

Institutions, reviews and decision-making

Institutions: The WTO Secretariat is to be included in communication by Members, when following their obligation to notify other Members of a deviation from existing standards (Articles 2.9, 2.10, 5.6, 5.7 TBT). A Committee on Technical Barriers to trade is established, composed of representatives from each of the Members, for the purpose of consultations and carrying out such responsibilities as assigned to it under the TBT or by the Members (Article 13.1, 13.2). For example, the Committee shall examine periodically the special and differential treatment, granted by the TBT to developing country Members on national and international levels (art. 12.10). For the description of further relevant institutions see the chapter 2.1.4.1 on GATT and GATS.

Reporting: There is no explicit reporting duty of the Members established under the TBT. However, the TBT Committee is mandated (Art. 13 TBT) to review the operation and implementation of the TBT Agreement on a triennial basis and to conduct an annual review of activities relating to the implementation and operation of the TBT Agreement, including notifications, specific trade concerns, technical assistance activities, and TBT related disputes.

Evaluation and review: -

Compliance procedures, remedies and dispute settlement procedures: Compliance is organized through information duties and mutual control with the possibility to appeal to the Dispute Settlement Body. If a Member considers, that another Member has not achieved satisfactory results under Articles 3, 4, 7, 8 and 9 TBT and its trade interests are significantly affected, it may appeal to the Dispute Settlement Body (Art. 14.4 TBT). For more details see chapter 2.1.4.1 on GATT and GATS.

Stakeholder and public involvement: Central government bodies are directly addressed by the TBT. They can prepare, adopt and apply technical regulations, standards and assessment conformity procedures. If local government bodies and non-government bodies do so, central government bodies have to assure that they act in compliance with the TBT provisions (Art. 3, 4, 7 and 8 TBT). Regarding public involvement and involvement of civil society representatives, see the findings in the respective chapter of “General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS)”.

Assessment

Coherence with other international treaties and policies: Like the GATT, TBT also applies to goods, and here, the TBT has priority over the GATT concerning technical regulations, standards and procedures for conformity assessments (General interpretative note to Annex 1A). It relates to most of the treaties under the Annex 1A, which deal mostly with other special subjects. TBT is specific to the regulatory scope of the General Agreement on Trade in Services (GATS) (Annex 1B to the Marrakesh Declaration) and Trade-Related Aspects of Intellectual Property Rights (TRIPS) (Annex 1C to the Marrakesh Declaration), as these deal with services and intellectual property rights, not with goods.

⁸⁰⁴ WTO Secretariat, “The WTO Agreements Series, Technical Barriers to trade”, 2014, p. 30.

Political weight of the instrument: Even though it has to be considered that the WTO Agreement has sustainable development as an objective, the TBT sets limits for Members seeking to implement social and ecological objectives in the field of trade. Trade restrictions have to be justified and in principle product-related. The room for consideration of environmental issues is not clear, as relevant questions, like the consistency of npr PPM with the TBT are not yet decided. The situation for social issues seems to be even more difficult, as these are not explicitly mentioned as objectives in the WTOA. However, they can be considered in the term "human health". It is not clear, whether it means a broad perception of life and health in the sense of all influences on the social being of individuals, or a close perception of the terms concerning only the immediate physical condition, thus leaving room to argue that further social concerns could find consideration, too.

Consideration of small and medium-scale companies: Companies are not addressed in the TBT directly. Indirectly, small and medium scale companies situated in a developing country can benefit in two ways from the TBT. Members shall take into consideration the special development, financial and trade needs of developing country Members when preparing and applying technical regulations and standards. Thus, technical regulations and standards of importing countries, e.g. on social or environmental objectives for mining, processing or transport of minerals in developing countries Members shall not create unnecessary obstacles to exports from these Members (Art. 12.3 TBT). Also, developing countries may adopt certain technical regulations, standards or conformity assessment procedures aimed at preserving indigenous technology and production methods and processes compatible with their development needs (Art. 12.4 TBT).

Effectiveness – if data are available: See the findings in the respective chapter of "General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS)".

Political opportunities and good practice examples:

See the findings in the respective chapter of "General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS)".

2.1.4.3 Government Procurement Agreement

Table 21: Government Procurement Agreement (adoption: 30 March 2012; in force: 6 April 2014)

Key aspects	Summary
Form and legal status	Binding and in force
Objectives	Liberalization and expansion of, and improving the framework for and the conduct of international trade. Effective management of public resources.
Parties	Some WTO Members
Territorial scope	Global, among parties
Resources covered	Goods, services and combinations thereof by any contractual means equaling or exceeding the relevant threshold specified by a party (with various exceptions)
Stage of the value chain	All. Any measure regarding covered procurement
Steering tool	Compliance with the general principles non-discrimination, the use of electronic means, transparent and impartial conduct of covered procurement
Assessment	++

Summary

The GPA is an international treatment among some WTO Members, dealing only and exclusively with government procurement. It defines the general principles that shall be considered and describes the different forms of tendering and proceedings. It also sets forth detailed obligations of the parties towards the other parties and towards suppliers. It takes into account the special situation of developing countries and also of small and medium scale companies. It allows the Members, to give positive consideration to environmental concerns, while following the general principles.

Overview

Form and legal status: The Government Procurement Agreement (GPA) is an international treaty of the World Trade Organization (WTO) which first entered into force in 1994 and the revised version on 6th April 2014. It is part of the Annex 4 to the Marrakesh Agreement which established the WTO (see also the Marrakesh Agreement, Agreement establishing the World Trade Organisation, 1994, Art. 2.3). As a plurilateral agreement it applies only to those WTO Members that have agreed to be bound by it.

Objectives: The treaty aims at achieving greater liberalization and expansion of and improving the framework for the conduct of international trade and states the need for an effective multilateral framework for government procurement (para. 1 of the preamble). Sustainability and the consideration of environmental concerns can be considered to be an objective of the GPA (and sometimes is being proposed by referring literature⁸⁰⁵), but is not explicitly laid down as an objective of the treaty.

Links to extraction, processing and transport of resources

Resources covered: Subject to the GPA are any law, regulation, procedure, administrative guidance or practice, or any action of a procuring entity relating to the procurement for governmental purposes of goods, services, or any combination thereof by any contractual means by a procuring entity (Art. II(2) (a), (b), Art. I(i) GPA). This means all resources can be subject to the GPA, when they are subject to

⁸⁰⁵ Steiner (2015).

government procurement, may they be highly processed in a product or non-processed and no matter of what origin.

Environmental and social impacts covered: The revised GPA approves the scope provided by the original Agreement to promote the conservation of natural resources and to protect the environment⁸⁰⁶ through the application of appropriate technical specifications. Technical specification are tendering requirement that lay down the characteristics of goods or services to be procured, including quality, performance, safety and dimensions, or the processes and methods for their production or provision; or addresses terminology, symbols, packaging, marking or labelling requirements, as they apply to a good or service (Art. I(u) GPA).

Technical specifications shall not be chosen freely, but primarily orientated along existing standards. In prescribing technical specifications for the goods or services being procured, a procuring entity shall, where appropriate, base the technical specification on international standards, where such exist; otherwise, on national technical regulations, recognized national standards or building codes (Art. X.2(b) GPA).

However, technical specifications should not be applied in a manner that would constitute a means of arbitrary or unjustifiable discrimination between Parties where the same conditions prevail or a disguised restriction on international trade (Art. 3.2 GPA). Moreover, procuring entities shall not prepare, adopt or apply any technical specification or prescribe any conformity assessment procedure with the purpose or the effect of creating unnecessary obstacles to international trade (Art. X.1 GPA). For legal certainty, a Party, including its procuring entities, may prepare, adopt or apply technical specifications to promote the conservation of natural resources or protect the environment (Art X.6 GPA). Conservation of natural resources or protection of the environment therefore are legitimate objectives that can guide technical specifications.

The process of procurement opens opportunities for procuring entities to consider social and environmental concerns. Generally, the procuring entity shall limit any conditions for participation in a procurement procedure to those that are essential to ensure that a supplier has the legal and financial capacities and the commercial and technical abilities to undertake the relevant procurement. (Art. VIII.1 GPA).

For more details on the implementation of procurement rules in the EU see the report “EU Public Procurement Directive 2014/24/EU”.

Steps of the value chain covered: All steps of the value chain are covered, as the GPA applies to any measure regarding covered procurement (Art. II.1 GPA) and allows a procuring entity to prepare adopt or apply technical specifications (Art.X.1). To consider environmental or social issues, a procuring entity can refer to the excavation or mining of a product, its processing or transport, the arrangement of a service, etc. As can be seen in the definitions (see above), environmental and social issues are understood widely. Especially in difference to the TBT, there is no need for distinction between pr PPM and npr PPM (product related and non-product related process and production methods). The definition of technical specifications is differently designed, as it “lays down the *characteristics of goods or services* to be procured including quality, performance, safety and dimensions, *or the processes and methods for their production or provision*; or addresses terminology, symbols, packaging, marking or labelling requirements, as they apply to a good or service.” (Art. I (u)) Therefore “it is no longer possible to argue that carbon dioxide emissions generated during the production or consump-

⁸⁰⁶ Cf. Nothing in the Agreement shall be construed to prevent any Party from imposing or enforcing measures (among others) necessary to protect human, animal or plant life or health (Art. III.2 (b) GPA).

tion of a product cannot be considered in the award phase because they do not lead to a direct advantage to the procuring entity but to an extraneous advantage of the society at large"⁸⁰⁷. Npr PPM can also be considered in measures to benefit environmental or social concerns.

Content

Type of steering tool: The GPA is an economic instrument.

Relevant obligations for parties: The GPA states principles that WTO Members have to follow when regulating public procurement. These principles include:

- ▶ "Non-Discrimination" which means that each Party must not treat any other party or supplier less favourable than any other participant because of origin, foreign affiliation, etc. (Art. IV GPA). This does not apply to import regulations or customs duties and charges of any kind imposed on, or in connection with, importation, other than measures governing covered procurement (Art. IV.7 GPA).
- ▶ Parties shall not apply rules of origin to goods or services from another Party that are different from the rules of origin the Party applies at the same time in the normal course of trade to imports or supplies of the same goods or services from the same Party (Art. IV.5 GPA).
- ▶ A procuring entity shall conduct covered procurement in a transparent and impartial manner that is consistent with the Agreement, avoids conflicts of interest and prevents corrupt practices (Art. IV.4 GPA).
- ▶ Parties have to meet information duties on their procurement system, i.e. to publish measures being taken and provide explanation to other parties (Art. VI GPA).
- ▶ Parties also have to publish notices of intended procurement. They are encouraged to publish their notices by electronic means free of charge through a single point of access (Art. VII.1 GPA).

Institutions, reviews and decision-making

Institutions: The Committee on Government Procurement gives Parties the opportunity to consult on any matters relating to the operation of the Agreement or the furtherance of its objectives, and in addition carries out such other responsibilities as may be assigned to it by the Parties (Art. XXI.1 GPA). It is composed of representatives from each of the Parties. Parties have to report their action in various cases to the Committee as well as having the right to notify the Committee of objections against other parties' actions. A further institution is the WTO Secretariat, which also services the GPA. (Art XXII.16 GPA).

Reporting: -/-

Evaluation and review: The Committee on Government Procurement shall annually review the implementation and operation of the GPA (Art. XXI.3 (a) GPA). Furthermore, the Committee shall undertake further work to facilitate the implementation of and improve the Agreement through the adoption of work programmes for (among others) the treatment of sustainable procurement (Art. 22.8 (a) (iii) GPA). A work programme with respect to sustainable procurement has been adopted in March 2012 (work program Art. 1)⁸⁰⁸. Topics to be examined according to the work program are:

- ▶ the objectives of sustainable procurement;
- ▶ the ways in which the concept of sustainable procurement is integrated into national and sub-national procurement policies;
- ▶ the ways in which sustainable procurement can be practiced in a manner consistent with the principle of "best value for money"; and

⁸⁰⁷ Steiner (2015).

⁸⁰⁸ Annex E: Decision of the Committee on Government Procurement on a Work Programme on Sustainable Procurement, Decision of 30 March 2012.

- the ways in which sustainable procurement can be practiced in a manner consistent with Parties' international trade obligations. (Art. 2 work program)

Parties of the GPA shall provide an administrative or juridical review procedure to give suppliers the opportunity to complain about a specific procurement either for a breach of the GPA or for a failure to comply with a Party's measures implementing this Agreement (Art. XVIII.1 GPA).

The Committee on Government Procurement shall review measures and policies for SMEs that the Parties use to assist, promote, encourage, or facilitate participation by SMEs in government procurement and prepare a report of the results of the review (Art.1, Annex C of the Decision on SMEs). The Parties are obliged, to make special treatment of SMEs transparent to the Committee (Art. 3.1 Annex C of the Decision on SMEs).

Compliance procedures, remedies and dispute settlement procedures: Dispute Settlement is carried out via the WTO Dispute Settlement Understanding (Art. XX.2 and 3 GPA).

Stakeholder and public involvement: Private actors are involved as suppliers in tendering procedures. Through their tender, that may have a positive impact concerning environmental or social issues, they could make themselves attractive for procuring entities. However, they can only be successful, if these issues are also considered in the decision of the procuring entity.

Assessment

Coherence with other international treaties and policies: The GPA is coherent with (in the sense of being connected with and not being inconsistent with) the WTO-treaties. It is prior to the regulatory scope of the GATT and the GATS and also to the TBT. As the GPA leaves room for parties to consider environmental issues especially through general exceptions and technical specifications, there is less room for incoherence with other multilateral environmental agreements. This could be different for social issues and corresponding agreements, as these issues are not that strongly considered in the GPA. Only the general exceptions mention human life or health as reasons for measures.

Political weight of the instrument: The political weight of the GPA to promote environmental and social aspects of mining resources can be considered high. Parties to the GPA can address those aspects in their national procurement law and procuring entities are not prevented by the GPA from setting criteria for responsible mining in their procurement procedures.

Consideration of small and medium-scale companies: The GPA considers small and medium-scale companies in Art. XXII.16. The Committee shall adopt a work program about the treatment of small and medium-sized enterprises (SMEs) in terms of facilitating the implementation of the GPA and the negotiations about its process (Art XXII.8 (a) (iii) GPA). The "Decision of the Committee on Government Procurement on a Work Program on SMEs" (here: Decision on SMEs)⁸⁰⁹ recognizes the importance of facilitating the participation of SMEs in government procurement (Art. 2 Annex C of the Decision on SMEs) and states, that the Committee shall initiate a Work Programme on SMEs (Art.1 Annex C of the Decision on SMEs).

Effectiveness – if data are available: -

Political opportunities and good practice examples:

- The relevance of environmental issues is reflected in the tasks of the Committee on Government Procurement (cf. Art. XXII.1 GPA). This Committee shall adopt a work programme inter alia for sustainable procurement (Art. XXII.8(a)(iii) GPA). The Decision on SMEs also tasks the committee to

⁸⁰⁹ Annex C Decision of the Committee on Government Procurement on a Working Programme on SMEs, Decision of 30 March 2012, see https://www.wto.org/english/tratop_e/gproc_e/annexc_e.pdf.

identify measures and policies that it considers to be sustainable procurement practiced in a manner consistent with the principle of "best value for money" and with Parties' international trade obligations and prepare a report that lists the best practices of the measures and policies (Art. 3, Annex E GPA).

- ▶ Looking at effectiveness from the perspective of environmental and social concerns, it can be observed, that the EU procurement directives and the transposing German procurement law consider environmental and social aspects as procurement criteria. This is generally stated in § 97 (3) GWB (Gesetz gegen Wettbewerbsbeschränkungen). Additionally, a tenderer can be excluded from the procurement procedure if he has violated environmental, social or labour regulations (§ 124 (1) GWB). The economically best tender can also be assessed by environmental or social criteria (§ 124 (1) GWB). Finally, procuring entities may set special provisions for the performance or quality of the tender that can relate to environmental and social issues, § 128 para. 2 GWB.

2.1.4.4 Three Regional Trade Agreements (CETA, COMESA, EU-Colombia/Peru)

Table 22: Comprehensive Economic and Trade Agreement between the EU and Canada (CETA)

Key aspects	Summary
Form and legal status	Provisionally in force since Sep. 21 2017
Objectives	CETA primarily pursues objectives with respect to the liberalisation of trade and investment
Parties	The Member States of the EU and Canada
Territorial scope	EU and Canada
Resources covered	No specific focus on resources
Stage of the value chain	No focus on a specific stage of the value chain
Steering tool	Several
Assessment	++

Table 23: Common Market for Eastern and Southern Africa (COMESA)

Key aspects	Summary
Form and legal status	Binding and in force
Objectives	COMESA primarily pursue objectives with respect to the liberalisation of trade and investment
Parties	Angola, Burundi, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar and several other African states
Territorial scope	The signee's territory
Resources covered	No specific focus on resources
Stage of the value chain	No focus on a specific stage of the value chain
Steering tool	Several
Assessment	++

Table 24: EU-Colombia/Peru

Key aspects	Summary
Form and legal status	Binding and in force
Objectives	Primarily objectives with respect to the liberalisation of trade and investment
Parties	EU-Colombia/Peru
Territorial scope	The signee's territory
Resources covered	No specific focus on resources
Stage of the value chain	No focus on a specific stage of the value chain
Steering tool	Several
Assessment	++

Summary for all three FTA's

This evaluation assesses three regional Free Trade Agreements (FTA's):

- ▶ the Comprehensive Economic and Trade Agreement between the EU and Canada (CETA),⁸¹⁰
- ▶ the Common Market for Eastern and Southern Africa (COMESA)⁸¹¹ and
- ▶ EU-Colombia/Peru⁸¹².

The evaluation focuses on their provisions concerning environmental aspects of resource governance. Environment-related provisions, sometimes precisely on energy and mineral resources are incorporated in an increasing number of FTA's and range from best endeavour language promoting, mainly through cooperation, sustainable energy management, to more specific commitments regarding trade in energy-based products, in particular export restrictions.⁸¹³ CETA and EU-Colombia/Peru contain – at least partly and in a rudimentary manner –⁸¹⁴ a higher number of explicit, general environmental principles that are common in European Environmental Law such as the precautionary principle and the polluter pays principle.⁸¹⁵

However, the impact as well as the potential of FTA's for resource policies is complex. The agreements traditionally provide for the elimination of non-tariff barriers to trade, the deregulation of trade in services, the protection of direct and indirect investments, the mutual recognition of qualifications, mutual access to public procurement or the adjustment of intellectual property rights. General obligations following from these objectives – like the prohibition of limitations on market access or the obligation not to expropriate investments by indirect means – can collide with the State's right to regulate market activities of economic actors in order to achieve environmental or social goals. Even where resources or social and environmental concerns are not addressed as explicit subjects of the mutual

⁸¹⁰ http://trade.ec.europa.eu/doclib/docs/2014/september/tradoc_152806.pdf (last accessed on 28.02.2019).

⁸¹¹ http://www.comesacompetition.org/wp-content/uploads/2016/03/COMESA_Treaty.pdf (last accessed on 28.02.2019).

⁸¹² http://trade.ec.europa.eu/doclib/docs/2011/march/tradoc_147704.pdf (last accessed on 28.02.2019).

⁸¹³ Monteiro, Typology of environment-related provisions in regional trade agreements.

⁸¹⁴ The question of whether such principles are integrated in a sufficient way is a subject of debate – for example regarding the integration of the precautionary principle in CETA and a respective "Joint Interpretive Declaration", see https://www.vzby.de/sites/default/files/stellungnahme_ceta_jid_stoll_goett_16-10-17.pdf; <http://data.consilium.europa.eu/doc/document/ST-13541-2016-INIT/de/pdf>; <https://www.foodwatch.org/de/presse/pressemitteilungen/presse-statement-ceta-zusatzerklaerung-eu-trickst-beim-vorsorgeprinzip/> (all last accessed on 28.02.2019).

⁸¹⁵ Trend (20.09.2017), <http://klimalog.die-gdi.de/trend/stories/comparing-ceta-tpp-environmental-dimension-in-trade-agreements/> (last accessed on 28.02.2019); Berger et al. (2017) at 6 provide a general categorization of environmental provisions in Preferential Trade Agreements.

rights and obligations, as more general objectives of the agreements or subjects of cooperation between the parties, they may serve as permitted exceptions for these more traditional rules and obligations concerning free trade, etc.⁸¹⁶

The description concentrates on the more exemplary structural properties of FTA's with relation to environmental and social aspects of resource governance. It focuses on whether the respective FTA's integrate a right to regulate and provide for exceptions for principles of liberalised trade and investment, in support of environmental or social policies. The assessment also delineates exemplary environmental provisions, where deemed appropriate. The assessment documents considerable differences between the agreements with respect to environmental matters.

Overview

Form and legal status: Trade Agreements are international contracts which are legally binding for the signing states. CETA has been provisionally binding since 21 September 2017.

Objectives: FTA's traditionally and primarily pursue objectives with respect to the liberalisation of trade and investment. However, all of the assessed FTA's refer to sustainability-related goals. **COMESA**, the oldest FTA to be examined, accordingly intends to attain sustainable growth and development of the Member States by promoting a more balanced and harmonious development of its production and marketing structures (Art. 3(a)) to promote joint development in all fields of economic activity (Art. 4(b)) and to cooperate in the creation of an enabling environment for foreign, cross border and domestic investment.

The **Colombia-Peru-EU FTA** integrates, in addition to the facilitation of trade in goods, progressive liberalization of trade in services or the effective and reciprocal opening of government procurement markets, the goal to promote international trade in a way that contributes to the objective of sustainable development (Peru Colombia EU, Art. 4).

CETA, amongst other free trade-related goals, holds that the Parties shall progressively liberalize trade in goods (Art. 2.1 CETA), but also states that their commitment to promote sustainable development and the development of international trade is reaffirmed in such a way as to contribute to sustainable development in its economic, social and environmental dimensions (preamble).

Territorial scope: The FTA's apply to the territory of their parties.

Links to extraction, processing and transport of resources

In **COMESA**, the parties agree to include environmental management and conservation measures in mining activities in the common market (Art. 124(1), 2(j); Art. 125(4)). The parties further undertake to accede to international agreements that are designed to improve the management of energy resources, develop new renewable energy resources and coordinate the exchange of information on energy resources (Art. 109).⁸¹⁷

Art. 8.1. **CETA** clarifies that an interest arising from a concession conferred pursuant to the law of a Party or under a contract, including a concession to search for, cultivate, extract or exploit natural resources as an investment is, in general, protected by the provisions on investment protection. Art. 8.3 holds, that the Parties understand that Article XX (g) of the GATT 1994 – which includes general exceptions for the prohibition of discrimination and restrictions of trade and allows the Member States regulation for the purpose of the conservation of exhaustible natural resources – applies to measures for the conservation of living and non-living exhaustible natural resources.

⁸¹⁶ Bartels (2017) at 212.

⁸¹⁷ Monteiro (2016) at 66.

EU-Colombia/Peru includes similar exceptions for its trade, trade-in services and investment-related chapters (Article 106(1)(g), 167(1)(c)). Article 181(6) holds that each Party, including its procuring entities, may prepare, adopt or apply technical specifications to promote the conservation of natural resources.

Resources covered: There is no focus on specific natural resources like minerals, etc.

Environmental and social impacts covered: The protection of environmental and social policies in Free Trade Agreements is traditionally⁸¹⁸ to be provided for by exceptions to the general rules and principles concerning the elimination of non-tariff barriers to trade, the deregulation of trade in services or the protection of direct and indirect investments. Such exceptions focus on regulatory policies – e.g. in the form of the “right to regulate” – in a general and abstract way. FTA’s therefore cover a wide range of environmental and social impacts, which are mainly results of the deregulation and liberalization policies implemented by the very same FTA’s and – due to the wide range of the subjects of the FTA’s – at least substantially unlimited.

The prohibition to discriminate against products, services and service providers from the other Party, whether in the form of customs duties, quantitative restrictions or other discriminatory regulations can affect human rights and more general issues of social policy in a variety of ways.⁸¹⁹ For example, it is claimed that CETA may increase the downward pressure on labour conditions on both sides of the Atlantic by opening up trade between jurisdictions of varying labour standards without raising the bar to the highest common denominator.⁸²⁰ FTA’s may complicate restrictions on imports of products produced in violation of core labour standards.⁸²¹ Bartels (2014) states that “at the broadest level, free trade alters the distribution of income between social groups, and also between women and men” and “... include[s] a significant deterioration in standards of living, or disproportionate effects on women”.⁸²²

Investment chapters in FTA’s with their controversial obligations like the principle of fair and equitable treatment (Art. 8.10 CETA) and the obligation not to expropriate investments by indirect means (Art. 8.12.1 CETA, Art. 159 COMESA) may likewise inhibit the state’s ability to comply with human rights obligations or obligations to protect the environment. Imposing environmental or social standards can, for example, be considered to infringe guarantees of fair and equitable treatment and the obligation not to expropriate investments by indirect means. Investors from one party to the Treaty have the right to sue other parties to the treaty in whose territory they make an investment in such cases, damages can be extensive.⁸²³ Some investment protection proceedings have given rise to conflicts of these principles e.g. with the right to health, the right to water and with general environmental rights.⁸²⁴ Critics assume that this possibility to be sued may preclude states to undertake necessary regulations for environmental or human rights-related purposes.⁸²⁵

Steps of the value chain covered: The FTA’s address trade and investment related policies of the parties in general. Their obligations or prohibitions e.g. focus on environmental or labour laws within the range of the authority of the parties without any restrictions respective specific steps of the value chain.

⁸¹⁸ See Art. XX GATT, https://www.wto.org/english/res_e/booksp_e/gatt_ai_e/art20_e.pdf (last accessed on 28.02.2019).

⁸¹⁹ Bartels (2014) at 27 et seq.

⁸²⁰ Pfister and Dessewffy (2016) at 68.

⁸²¹ Bartels (2014) at 28.

⁸²² Bartels (2014) at 27.

⁸²³ Bernasconi (2009) at 2.

⁸²⁴ Fischer-Lescano and Horst (2014) at 21.

⁸²⁵ <http://land-grabbing.de/triebkraefte/spekulation/fallbeispiel-investitionsschutzabkommen-verhindern-landreformen/> (last accessed on 28.02.2019).

Content

Type of steering tool: Requirements for the protection of environmental and social policies are provided for by exceptions to the general rules and principles regarding free trade along with more substantive environmental stipulations, for example concerning environmental cooperation (Art. 24.2 CETA), the integration of international environmental obligations (Art. 125(3) COMESA, Art. 270 EU-Colombia/Peru) or the obligation to enforce national environmental laws (Art. 24.6(1)(a) CETA). CETA prominently also stipulates institutional provisions concerning regulatory cooperation with respect to development, review and methodological aspects of regulatory measures of the Parties' regulatory authorities (Art. 21.1 CETA).

Relevant obligations for parties: The FTA's at hand integrate a great number of obligations concerning the elimination of non-tariff barriers to trade, the deregulation of trades in services, the protection of direct and indirect investments, the mutual recognition of qualifications, mutual access to public procurement or the adjustment of intellectual property rights. However, the following assessment of the relevant obligations for the parties focuses on provisions aiming at safeguarding or promoting human rights and environment-related issues and policies acting as a counterbalance to this primary rationale.

The **European Union's Trade Agreement with Colombia and Peru** includes a dedicated Trade and Sustainable Development chapter containing its own mechanisms for dialogue with civil society and for dispute settlement.⁸²⁶ In contrast to CETA and COMESA, the EU-Colombia/Peru FTA does not integrate a chapter on investment protection, although it does not limit the scope of existing or future agreements between the parties in this respect.⁸²⁷ Several provisions include a commitment to effectively implement all multilateral environmental agreements to which each country is a party. The FTA also entails a confirmation of the right to regulate: Each party is required to aim for a high level of environmental protection, and to refrain from derogating from its environmental standards or failing to enforce its environmental laws, in a manner that affects trade or investment between the parties. It also integrates sectorial articles on trade in fisheries, trade in forestry products, biodiversity and climate change and prescribes areas of cooperation. These include activities related to: evaluation of the environmental impacts of the trade agreement; monitoring implementation of multilateral environmental agreements; climate change, including the reduction of emissions from deforestation and forest degradation; conservation and sustainable use of biological diversity; sustainable forest management; trade in fishery products; and corporate social responsibility.

In Article 1, the EU-Colombia/Peru FTA finally contains a so-called "essential elements" clause, i.e. a general reference to human rights and environmental law, which warrants an implementation of the respective agreement that is consistent with human rights:⁸²⁸ "Respect for democratic principles and fundamental human rights, as laid down in the Universal Declaration of Human Rights, and for the principle of the rule of law, underpins the internal and international policies of the Parties. Respect for these principles constitutes an essential element of this Agreement." Such clauses make it possible to contractually sanction also those rights violations which at first glance bear no factual relationship to the execution of the agreement.⁸²⁹

CETA does not include such a general reference to human rights and environmental law outside of the Preamble.⁸³⁰ The treaty contains, however, certain goals with respect to environmental and social poli-

⁸²⁶ George (2014) at 8.

⁸²⁷ See e.g. the BIT between Germany and Peru, <http://investmentpolicyhub.unctad.org/IIA/country/165/treaty/1738> (last accessed on 28.02.2019).

⁸²⁸ Fischer-Lescano and Horst (2014) at 29.

⁸²⁹ Fischer-Lescano and Horst (2014) at 29.

⁸³⁰ Fischer-Lescano and Horst (2014) at 29.

cies and the agreement to dialogue and consult with each other with regard to trade-related sustainable development issues (Art. 22.1 et seq.). The Parties further recognise the right to regulate with respect to environmental law, i.e. the right to set environmental priorities, to establish levels of environmental protection, and to adopt or modify laws and policies accordingly and in a manner consistent with the multilateral environmental agreements to which it is party and with the Agreement. Each Party shall seek to ensure that those laws and policies provide for and encourage high levels of environmental protection, and shall strive to continue to improve such laws and policies and their underlying levels of protection. (Art. 24.3)⁸³¹ Art. 24.4 stipulates: "The Parties acknowledge their right to use Article 28.3 (general exceptions) in relation to environmental measures, including those taken pursuant to multilateral environmental agreements to which they are party." CETA also prescribes certain concrete clarifications and exceptions to prohibit that environmental or human rights-related policies are interpreted as infringements of the obligations of the contract: It holds, for example in its investment chapter, that the Parties reaffirm their right to regulate within their territories to achieve legitimate policy objectives, such as the protection of public health, safety, the environment or public morals, social or consumer protection or the promotion and protection of cultural diversity, Art. 8.9.1, and that the mere fact that a Party regulates, including through a modification to its laws, in a manner which negatively affects an investment or interferes with an investor's expectations does not amount to a breach of an obligation prescribed by the investment protection chapter (Art. 8.9.2). In relation to the principle of fair and equitable treatment⁸³² it states that "the fact that a measure breaches domestic law does not, in and of itself, establish a breach of this Article" (Art. 8.10.7).

Another relevant exception to the general prohibition of limitations on market access for investors and enterprises from the respective State holds, that measures seeking to ensure the conservation and protection of natural resources and the environment, including a limitation on the availability, number and scope of concessions granted, and the imposition of a moratorium or ban (Article 8.4 No.1, No.2 (d) CETA) are permissible. Art. 19.9 CETA holds, that – as an exception to the general prohibition of specifications or prescriptions for government procurement, that could create obstacles to international trade – the Parties, including its procuring entities, may prepare, adopt or apply specifications to promote the conservation of natural resources or protect the environment.

In a supplementary "Joint Interpretative Declaration",⁸³³ the legal relevance of which remains subject of debate,⁸³⁴ the parties affirm that "CETA preserves the ability of the European Union and its Member States and Canada to adopt and apply their own laws and regulations that regulate economic activity in the public interest, to achieve legitimate public policy objectives such as the protection and promotion of public health, social services, public education, safety, the environment, public morals, social or consumer protection, privacy and data protection and the promotion and protection of cultural diversity," (Art. 2).⁸³⁵

COMESA integrates a general agreement to cooperate and coordinate strategies for the protection and preservation of the environment (Art. 122), and more specified agreements to cooperate, i.e. in promoting and enforcing standards relating to public health and safety and the protection of the environment by applying appropriate standards for goods produced and traded within the Common Market (Art. 112(c)). The parties acknowledge, that measures relating to the environment shall be based on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay (Art. 122 para. 6) and agree to take concerted measures to foster cooperation in the joint and efficient management and sustainable utilization of

⁸³¹ This exception does not, however, include measures of a Party the purpose of which is to manage the subsistence or aboriginal harvesting of natural resources, see Art. 24.1.

⁸³² See above, p. 3.

⁸³³ <http://data.consilium.europa.eu/doc/document/ST-13541-2016-INIT/en/pdf> (last accessed on 28.02.2019).

⁸³⁴ Stoll and Gött (2016) at 1.

⁸³⁵ <http://data.consilium.europa.eu/doc/document/ST-13541-2016-INIT/en/pdf> (last accessed on 28.02.2019) See Bartels (2017), p. 211.

natural resources, Art. 123 COMESA also prescribes cooperation in the development of renewable energy resources (Art. 106).

Institutions, reviews and decision-making

Institutions: EU-Colombia/Peru FTA assigns responsibility for overseeing implementation of the trade agreement to a trade committee. The Sub-Committee on Trade and Sustainable Development was established to oversee implementation and monitoring of the chapter, and to administer its co-operation activities. The Subcommittee on Trade and Sustainable Development is expected to convene annual sessions with civil society organizations and the public at large, to carry out a dialogue on matters related to the implementation of the chapter. In addition, each party is required to convene new or consult existing domestic advisory groups that will advise parties and make recommendations regarding the implementation of the chapter.⁸³⁶ In cases of dispute, procedures are initiated which can lead to the establishment and implementation of arbitration proceedings (Art. 302 et seq.).

The **CETA Joint Committee**, CETA's leading political body,⁸³⁷ is responsible for all questions concerning trade and investment between the Parties and the implementation and application of this Agreement. It is co-chaired by the Minister for International Trade of Canada and the Member of the European Commission responsible for Trade, or their respective designees. Each party may refer to the CETA Joint Committee on any issue relating to the implementation and interpretation of any issue concerning trade and investment. The Joint Committee has the power to adopt legally binding decisions and to modify annexes and protocols.⁸³⁸ Together with the Regulatory Cooperation Forum, a body co-chaired by a senior representative of the Government of Canada and a senior representative of the European Commission and comprising relevant officials of each party (Art. 21.6) the Joint Committee establishes the institutional framework for regulatory cooperation. Regulatory cooperation focuses – on a voluntary basis – on trade liberalization and consistency of rules across borders.

In addition to the Joint Committee, CETA establishes a number of specialized institutions and committees: Each Party shall designate an office to serve as contact point with the other Party for the implementation of the chapter on trade and environment. Art. 24.13. Art. 26.2.1(g) establishes a Committee on Trade and Sustainable Development.

Each Party shall be open to receive and shall give due consideration to submissions from the public on matters related to this chapter, including communications on implementation concerns. Each Party shall inform its respective civil society organizations of those communications (Art. 24.7.3 CETA).

COMESA installs a Secretariat, as well as a system of authorities, a secretariat, headed by a secretary general of the common market (Art. 17) counsels and committees, e.g. a Technical Committee on Natural Resources and Environment (Art. 15(i)).

Reporting: -

Evaluation and review: EU-Colombia/-Peru-EU FTA contains a provision on ex-post assessment, with a general commitment for each party to review, monitor and assess the impact of the FTA on sustainable development. Each Party shall designate an office within its administration that shall serve as contact point to the other Parties for the purposes of implementing trade-related aspects of sustainable development. A Sub-committee on Trade and Sustainable Development shall carry out the follow-up of sustainability-related provisions and identify actions for the achievement of the objectives of sustainable development, identify areas of cooperation and verify the effective implementation of cooperation. (Art. 280).

⁸³⁶ Developments in regional trade agreements and the environment: 2013 UPDATE, p. 8.

⁸³⁷ Meyer-Ohlendorf et.al (2016) at 4.

⁸³⁸ Meyer-Ohlendorf et.al (2016) at 4.

CETA stipulates review functions for the Joint Committee (Art. 26.1) and for the specialized Committees (e.g. Art. 5.14, Art. 24.13 para. 3 (a)). The Joint Committee shall supervise and facilitate the implementation and application of this Agreement and further its general aims, supervise the work of all specialised committees and other bodies established under this Agreement, without prejudice to Chapters 8, 22, 24, 29 seek appropriate ways and methods of preventing problems that might arise in areas covered, or of resolving disputes that may arise regarding the interpretation or application of this Agreement, Art. 26.1.

COMESA prescribes that the Secretariat shall be responsible for following up and monitoring the implementation by the Member States of the provisions of this Treaty and the regulations made, directives issued, recommendations made and decisions taken and opinions delivered by the Council, Article 173(2). A Technical Committee on Natural Resources and Environment shall monitor and keep under constant review the implementation of co-operation programmes with respect to its sector, Article 16(b).

Compliance procedures, remedies and dispute settlement procedures: Article 29 et seq. **CETA** integrate a general dispute management mechanism for any dispute concerning the interpretation or application of the provisions of the Agreement – including the possibility to request consultation as well as rules regarding procedures and implementation of dispute settlement. The chapters on trade and the environment, however, remain excluded from this dispute settlement system, Article 24.16. Article 8.29 stipulates the establishment of a multilateral investment tribunal and appellate mechanism, to be pursued with other trading partners. CETA establishes two dispute resolution mechanisms for matters under the sustainable development and environment chapter: consultations (Article 24.14) and the Expert Panel (Article 24.15).⁸³⁹

EU-Colombia/-Peru-EU (Art. 298 et seq.) as well as **COMESA** (Art. 19 et seq.) integrate dispute settlement procedures.

Stakeholder and public involvement: The secrecy of negotiations and procedures in FTA's has been criticized widely and prominently.⁸⁴⁰ The confidentiality of arbitration procedures, especially concerning investment dispute settlements, remains equally controversial.

Art. 24.7 **CETA** holds that each Party shall encourage public debate with and among non-state actors as regards the development and definition of policies that may lead to the adoption of environmental law. Chapter 27 stipulates a series of transparency-related provisions, e.g. on the publication of laws, regulations and administrative rulings and the provision of information. Article 27.5 CETA prescribes that the Parties agree to cooperate in bilateral, regional and multilateral Fora on ways to promote transparency in respect of international trade and investment. Paragraph 10 b) of the Joint Interpretative Instrument holds in a programmatic manner, that "stakeholders, including employers, unions, labour and business organizations and environmental groups, have a key role to play in supporting the effective implementation of CETA".

Art. 282 **Colombia/Peru-EU** establishes a dialogue with civil society: the Subcommittee on Trade and Sustainable Development shall convene once a year a session with civil society organizations and the public at large, in order to carry out a dialogue on sustainability-related matters.

Assessment

Coherence with other international treaties and policies: The issue of coherence of FTA's with environmental and human rights treaties and provisions has been subject to longstanding debate, especially

⁸³⁹ Meyer-Ohlendorf et.al (2016) at 23.

⁸⁴⁰ Leino (2017) at 11; <http://ttip2016.eu/blog/id-12-reasons-the-greenefa-group-are-opposed-to-ceta.html> (last accessed on 28.02.2019).

with respect to Investment Chapter in the Treaties.⁸⁴¹ All of the FTA's at hand include provisions on the integration of international agreements.

CETA declares the parties' confirmation of their international commitments on labour and environmental matters in the preamble. It also prescribes the requirement of consistency of its provisions with concrete international agreements at several points (i.e. in Articles 8.9.4, 20.24, 20.7, 24.9.2, 24.10, 24.12) Art. 24.4 holds, "that the Parties recognize the value of international environmental governance and agreements". Preamble d) of the Joint Interpretive Instrument on CETA assures the validity of the party's commitments with respect to precaution that they have undertaken in international agreements – critics assess this clause to be a potential debilitation of the European cautionary principle.

In Article 272 **Colombia/Peru-EU** the Parties confirm their commitment to conserve and sustainably use biological diversity in accordance with the Convention on Biological Diversity and other relevant international agreements to which the signatories are party. Art. 270 Colombia/Peru-EU contains the parties reaffirmation of their commitment to effectively implement in their laws and practices concrete multilateral environmental agreements, e.g. the Stockholm Convention on Persistent Organic Pollutants adopted on 22 May 2001, the Montreal Protocol on Substances that Deplete the Ozone Layer adopted on 16 September of 1987, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal adopted on 22 March 1989. According to Art. 269 each Party commits to the promotion and effective implementation in its laws and practice and in its whole territory of internationally recognised core labour standards as contained in the fundamental Conventions of the International Labour Organisation.

Article 109 **COMESA** integrates the member state's commitment to accede to international agreements that are designed to improve the management of energy resources, develop new renewable energy resources and coordinate the exchange of information on energy resources. Article 123 paragraph 5 holds the member state's undertaking to undertake to accede to international conventions or agreements that are designed to improve the policies of development, management and protection of their natural resources.

Political weight of the instrument: The political weight of Free Trade Agreements is extensive. FTA's are an important part of the rules and principles of international trade and investment and – more importantly – partly determine the legal scope for governmental regulation of economic practices in the public interest. The options of dispute settlement and financial compensation of infringements of the treaties – especially in the case of investment arbitration – further exacerbate this relevance. The growing importance of environmental and human rights-related provisions in FTA's⁸⁴² substantiates the assumption that there are potentials to integrate environmental and human rights-related concerns into the primarily economic rationale and regulating mechanisms of FTA's. The question, if such intra-system potentials can accommodate these concerns to a satisfying extent – or if more systemic changes are necessary – can't be settled within the scope of this paper decisively.

Consideration of small and medium-scale companies: CETA contains two rather minor provisions on the matter: Art. 19.19.2 prescribes rules to improve access to opportunities respective public procurement; Art. 16.5 (c) stipulates the function of the Committee on Government procurement to consider the facilitation of the use of electronic commerce for SME's. The Joint Interpretative Declaration claims, that SME's, as well as small farmers "will benefit by benefit by easier access to markets and better selling opportunities", paragraph 13.

The parties of the **Colombia-EU-Peru** FTA stipulate their agreement to strengthen technical cooperation and trade capacity building for the development of Micro and SMEs, using trade as a tool for reducing

⁸⁴¹ See Kim (2016) at 282 et seq.; Ceyssens and Sekler (2005).

⁸⁴² See George (2014a) at 21.

poverty, Art. 324; recognize the importance of the participation of Micro and SMEs in government procurement, art. 192 and prescribes the function of the Trade Committee to examine the impact of this Agreement on the micro, small and medium-sized enterprises (hereinafter referred to as "Micro and SMEs") of the Parties, including any resulting benefits '(Art. 13 para. 3).

There are no specific rules for SMEs in **COMESA**.

Effectiveness – if data are available: The effects of international trade agreements are controversial and – due to the variety of the objects of regulation – extremely diverse. For a general overview on the effectiveness of international trade agreements and investment law see the findings in the respective chapters of "General Agreement on Tariffs and Trade (GATT) and General Agreement on Trade in Services (GATS)" and "Principles in international investment agreements".

Political opportunities and good practice examples:

The assessment yields an ambivalent result: On the one hand, significant deficits in the substance of the chapters on environmental and human rights-related dimensions of free trade remain in all of the assessed agreements: Explicit provisions (e.g. in the Chapters 22 and 24 CETA) are largely aspirational and programmatic and contain few "hard" substantive obligations. The Chapters generally use terms such as "enhance", "promote" and "aim to".⁸⁴³

On the other hand, even "weak" provisions are important instruments for the interpretation of an agreement; the same applies to the reference to sustainable development in the preamble. Exceptions, associated with GATT Article XX or rather concrete manifestations of the „right to regulate“ may have considerable impact on prospective environmental and human-rights policies and regulation. An essential elements clause on human rights and environmental law, which serves as more effective and more flexible protection of the relevant standards in the context of advanced trade and investment agreements,⁸⁴⁴ is – contrary to CETA – integrated in the **Colombia/Peru-EU FTA**. Clauses, which prioritize individual and common goods over the economic rationale in an effective manner, exist in other agreements, like for example Article 17(1) of the BIT between Canada and Tanzania, which states:

"Subject to the requirement that such measures are not applied in a manner that would constitute arbitrary or unjustifiable discrimination between investments or between investors, or a disguised restriction on international trade or investment, this Agreement shall not be construed to prevent a Party from adopting or enforcing measures necessary:

- ▶ to protect human, animal or plant life or health;
- ▶ to ensure compliance with laws and regulations that are not inconsistent with this Agreement; or
- ▶ for the conservation of living or non-living exhaustible natural resources."⁸⁴⁵

Bartels (2014) proposes a comprehensive "model human rights clause" including procedural safeguards.⁸⁴⁶

Procedural obligations such as mandatory review, cooperation or consultation requirements are enforceable and could lead to further progress, albeit the effects of these procedural instruments probably depend on non-legal influence, such as the political environment and the accumulation of experience.⁸⁴⁷ The inclusion of provisions for compliance with multilateral environmental agreements, present in all of the FTA's at hand, can be seen as a major driver for further evolution of FTA's.⁸⁴⁸ FTA's should, according to Fischer-Lescano and Horst (2014), **provide a procedural protection mechanism** in

⁸⁴³ See Meyer-Ohlendorf et al. (2016) at 6.

⁸⁴⁴ Fischer-Lescano and Horst (2014) at 29.

⁸⁴⁵ Fischer-Lescano and Horst (2014) at 29.

⁸⁴⁶ Bartels (2014) at 36 et seq.

⁸⁴⁷ George, (2014a) at 4.

⁸⁴⁸ George, (2014a) at 4.

case an obligation in the agreement contradicts obligations of one party with respect to individual and common goods. The aim of this process should be to enable the respective parties to observe their obligations toward individual and common goods. Finally, such a clause should also guarantee procedural rights of action for individuals and – with regard to environmental issues – for organizations.⁸⁴⁹ The exclusion of the environmental chapters in **CETA** from the dispute settlement system established by the treaty is questionable, particularly with regard to the fact that, as Bartels observes, mechanisms – typical in other Canadian FTA's – by which individuals of one party (e.g. organized civil society groups) may make submissions to the other party in relation to matters arising under the agreement, which is then linked to the treaty parties invoking consultation and dispute settlement proceedings are very much watered down in CETA.⁸⁵⁰

CETA contains certain provisions directed at the interpretation of substantive investment obligations, especially **fair and equitable treatment and expropriation**, which sets a new standard for these obligations.⁸⁵¹ The effects of these new obligations as well as the establishment of a multilateral investment tribunal and appellate mechanism, which is unprecedented in International Investment Protection Law, remain to be seen.

2.1.4.5 Principles in international investment agreements

Table 25: Principles in international investment agreements

Key aspects	Summary
Form and legal status	Depending on agreement, but usually in force and binding, mostly with dispute settlement mechanism
Objectives	Defining rights and obligations of states in relation to foreign investment
Parties	Depending on agreement: bilateral and regional agreements
Territorial scope	Depending on agreement: bilateral and regional agreements; most countries of the world have one or several investment agreements
Resources covered	Not applicable
Stage of the value chain	In principle all, but extraction probably more practically relevant
Steering tool	Obligations for states on how to treat foreign investors
Assessment	++

Introductory explanation

This section does not cover a specific international legal instrument, but obligations of states in relation to foreign investment and investors, including in the field of natural resource extractions. These obligations are contained in most of the more than 2600⁸⁵² international investment agreements (IIAs) or trade and investment agreements in force today. For this study, a limited number of obligations have been selected that are particularly relevant in disputes over regulatory measures by host states. The relevant obligations are phrased in various ways in different treaties; however, the core concepts behind these obligations are very similar across international investment agreements, making a summary analysis possible.

⁸⁴⁹ Fischer-Lescano and Horst (2014) at 29.

⁸⁵⁰ Bartels (2017) at 207.

⁸⁵¹ Bartels (2017) at 215.

⁸⁵² UNCTAD's "International Investment Agreements Navigator" lists 2360 bilateral investment agreements in force and 307 other treaties with investment provisions as of October 2017, see <http://investmentpolicyhub.unctad.org/IIA>.

Summary

There are more than 2600 IIAs in force today. The majority of them is bilateral and focused on investment issues only, others involve more parties and/or are more comprehensive, with investment protection as only one of several issues. IIAs have primarily investment-related, economic objectives. By imposing limits on domestic regulation of foreign investment, they can also limit the ability of countries to adopt regulation aimed at making the production of natural resources more sustainable. Most agreements contain a mechanism allowing foreign investors to bring claims for damages against the government of the host country for not complying with obligations under the agreement. This kind of mechanism is exceptional in international law. Given the availability of investor-state arbitration proceedings, and their use, it could be plausible to assume that international investment treatments could have a chilling effect on national regulation. However, this is difficult to prove empirically. The ongoing critical debate about the need to reform the international investment regime could lead to a change in IIA provisions so that there is less risk of a potential chilling effect on domestic regulation in the future. On the other hand, there are some indications that certain elements in IIAs can actually also be used to hold states accountable to existing environmental commitments. States are also starting to more seek to obtain compensation from the investors for violations of the host State's environmental laws. However, considering that IIAs are normally aimed at promoting foreign investment, this is unlikely to become their main function.

Overview

Form and legal status: IIAs are binding international treaties between two or more parties. According to UNCTAD's database of IIAs, by far the majority of treaties are bilateral in character.⁸⁵³

Objectives: A comprehensive review different objectives mentioned in IIAs was beyond the scope of this chapter. However, objectives mentioned in some IIAs are deepening the economic relations between countries and creating favourable conditions for investment. References to sustainable development, environmental protection or other public policy goals as an objective appear to be rare so far, but do exist.⁸⁵⁴

Territorial scope: The territorial scope is different for each investment treaty. However, given the total number of investment treaties that are in force globally, nearly all countries of the world appear to be subject to a number of core obligations routinely contained in investment agreements.

Type of steering tool: IIAs impose binding limits on what measures host states can take vis-à-vis foreign investors.

Links to extraction, processing and transport of resources

Resources covered: While agreements contain varying definitions of the foreign investments covered, the scope of agreements is not limited to certain types of resources.

Environmental and social impacts covered: Investment agreements are not primarily concerned with environmental or social impacts, but with the way governments treat foreign investment. However, provisions in international investment agreements can have environmental or social impacts, notably by imposing limits to or conditions for national regulation aimed at having an environmental or social impact. As such, investment agreements are not limited to any specific environmental or social impact.

⁸⁵³ See figures given in note 852.

⁸⁵⁴ See for example the preamble of the bilateral agreement between Canada and Peru (2006).

Steps of the value chain covered: Investment agreements are not limited to any specific step of the value chain. In substance, they apply to foreign investments as defined in the respective treaty. Investments can occur at different stages of the value chain, including extraction and manufacturing.

Content

Relevant obligations for parties: Different IIAs obviously contain different sets of provisions and wording. However, there are a number of core obligations for host states that appear in many agreements. Among them, two obligations tend to be the most relevant ones in disputes involving regulatory measures of host states vis-à-vis foreign investors: an obligation to afford foreign investors fair and equitable treatment (FET) and a prohibition of (indirectly) expropriating foreign investors.

There are, of course, different actions by states that investors seek to avoid or object to. In the cases that had a very clear environmental dimension, a few issues can be identified that appear to regularly trouble investors: diverging decisions by different government bodies⁸⁵⁵, revocation/non-granting of expected licenses for an environmentally polluting activity, or changes in regulatory conditions. Labour standards and other social aspects of the business conduct of companies so far appear to have played a lesser role in investment arbitration by comparison.

Of the mentioned two core obligations, the FET obligation is more practically relevant.⁸⁵⁶ Its wording in many IIAs is extremely vague, lending itself to a number of interpretations. Case law has identified a number of different sub-standards being linked to the FET obligation, including fair procedure, non-discrimination, and transparency.⁸⁵⁷

The most important element of the FET obligation for the present context is that “fair and equitable treatment” has been understood to require host states to protect the “legitimate expectations” of foreign investors. Some investment tribunals have held that legitimate expectations may be violated when there are far-reaching and/or sudden changes of the regulatory framework in a given country. For example in the *TECMED* case, the tribunal held that a FET clause requires the host state to “provide to international investments treatment that does not affect the basic expectations that were taken into account by the foreign investor to make the investment.”⁸⁵⁸ The foreign investor expects the host State to act in a consistent manner, free from ambiguity and totally transparently in its relations with the foreign investor, so that it may know beforehand any and all rules and regulations that will govern its investments, as well as the goals of the relevant policies and administrative practices or directives, to be able to plan its investment and comply with such regulations.” This interpretation has been supported in later case law.⁸⁵⁹ In line with such a kind of reasoning, an introduction of new legislation requiring companies to observe certain environmental and social standards in the mining sector for the first time or making existing regulation much stricter, could be considered to violate a FET clause.

However, in other cases, investment tribunals have applied a more narrow interpretation to FET obligations. For example, in the *Parkerings v. Lithuania* case the tribunal held: “A State has the right to enact, modify or cancel a law at its own discretion. Save for the existence of an agreement, in the form of a stabilisation clause or otherwise, there is nothing objectionable about the amendment brought to the regulatory framework existing at the time an investor made its investment. As a matter of fact, any businessman or investor knows that laws will evolve over time. [...] In principle, an investor has a right

⁸⁵⁵ This appears to be linked to often decentralised procedures for decision-making on permits etc., see Romson (2011) at 47.

⁸⁵⁶ See Klein Bronfman (2005) at 611.

⁸⁵⁷ See Kläger (2011) at 246f.

⁸⁵⁸ International Centre for Settlement of Investment Disputes, Award in *Tecnicas Medioambientales Tecmed S.A. vs. United Mexican States*, Case No. ARB (AF)/00/2, para. 154.

⁸⁵⁹ See International Centre for Settlement of Investment Disputes, Award in *MTD Equity Sdn. Bhd. and MTD Chile S.A. v. Republic of Chile*, Case No. ARB/01/7, para. 114 f.; Final Award in the Matter of an UNCITRAL Arbitration (London Court of International Arbitration Administered Case No. UN 3467), *Occidental Exploration and Production Company vs. Ecuador*, para. 185.

to a certain stability and predictability of the legal environment of the investment. The investor will have a right of protection of its legitimate expectations provided it exercised due diligence and that its legitimate expectations were reasonable in light of the circumstances. Consequently, an investor must anticipate that the circumstances could change, and thus structure its investment in order to adapt it to the potential changes of the legal environment.”⁸⁶⁰ Another tribunal expressed that it has no “mandate to second-guess government decision-making. Governments have to make many potentially controversial choices. In doing so, they may appear to have made mistakes, to have misjudged the facts, proceeded on the basis of a misguided economic or sociological theory, placed too much emphasis on some social values over others and adopted solutions that are ultimately ineffective or counterproductive.”⁸⁶¹ Yet, none of these mistakes, the tribunal said, should alone lead to finding a violation of a FET clause. Altogether, what constitutes a violation of a FET clause is not entirely settled yet in international investment case law.⁸⁶² Interestingly, variations in the interpretation of the clause in the case law do not seem to be very much related to differences in the wording of the clause in various IIAs.⁸⁶³ The prohibition of expropriation is also often invoked in investor-state arbitration. Typically prohibitions against expropriations do not only cover direct expropriations – acts through which a government directly aims at taking the property of an investor – but also so called indirect expropriation. Again, various arbitration panels have interpreted the respective clauses in different ways. Some interpretations are such that they could mean that changes in the regulatory framework affecting investments could be considered an expropriation. For example, the *Metalclad v. Mexico* tribunal held that the NAFTA expropriation clause prohibits “not only open, deliberate and acknowledged takings of property, ... but also covert or incidental interference with the use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably-to-be-expected economic benefit of property even if not necessarily to the obvious benefit of the host State.”⁸⁶⁴ Literature describes this approach to interpreting expropriation clauses as the “sole-effects doctrine”. In this approach, it is the economic effect of an act of the host state on the foreign investor that matters for determining whether or not there is an expropriation. However, other tribunals have embraced a narrower understanding of what types of state conduct may constitute an indirect expropriation, embracing what has been labelled the “police-power doctrine”.⁸⁶⁵ This approach is exemplified by the *SD Myers vs. Canada* case. In this case, the arbitration tribunal interpreted Art. 1110 NAFTA, which contains a prohibition on expropriation, in the following way: “The general body of precedent usually does not treat regulatory action as amounting to expropriation. Regulatory conduct by public authorities is unlikely to be the subject of legitimate complaint under Article 1110 of the NAFTA, although the Tribunal does not rule out that possibility. Expropriations tend to involve the deprivation of ownership rights; regulations a lesser interference. The distinction between expropriation and regulation screens out most potential cases of complaints concerning economic intervention by a state and reduces the risk that governments will be subject to claims as they go about their business of managing public affairs.”⁸⁶⁶ Later tribunals have followed a similar line of reasoning. For example, in the *TECMED* case, the tribunal held that for assessing whether a regulatory action or measure amounted to an expropriation it would do the following: “..., in addition to the negative financial impact of such actions or measures, the Arbitral Tribunal will consider, in order to determine if they are to be characterized as expropriatory, whether such actions or measures are proportional to the public interest presumably

⁸⁶⁰ International Centre for Settlement of Investment Disputes, Award in *Parkerings Compagniet AS vs. Republic of Lithuania*, Case No. ARB/05/8, para. 332f.

⁸⁶¹ Award in *S.D. Myers, Inc. vs. Government of Canada*, para. 261.

⁸⁶² See for example the dissenting opinion in the 2016 *Gharanne B.V. Construction Investments S.A. R.L. vs. Spain* case (originally in Spanish: Opinión disidente del. Prof. Guide Santiago Tawil).

⁸⁶³ See Klein Bronfman (2005) at 625.

⁸⁶⁴ International Centre for Settlement of Investment Disputes, Award in *Metalclad Corporation vs. United Mexican States*, Case No. ARB(AF)/97/1, para. 103.

⁸⁶⁵ See Fauchald (2007) at 21.

⁸⁶⁶ Award in *S.D. Myers, Inc. vs. Government of Canada*, paras 281-283.

protected thereby and to the protection legally granted to investments, taking into account that the significance of such impact has a key role upon deciding the proportionality.”⁸⁶⁷

All in all, tribunals seem to mostly have rejected very broad expropriation claims by investors.⁸⁶⁸ Many of the more recent agreements also include definitions of expropriation that make it clear that “non-discriminatory regulatory actions by a Party that are designed and applied to protect legitimate public welfare objectives, such as public health, safety, and the environment, do not constitute indirect expropriations”⁸⁶⁹. Some observers assume that such clauses are likely to prevent investors from successfully using expropriation clauses to challenge environmental measures.⁸⁷⁰ More generally, many countries appear to have become more aware of the risks associated with vague phrasing of clauses in IIAs. They have included more detailed rules in some of the more recent IIAs, narrowing the scope for tribunals to consider bona fide regulatory measures a violation of investment agreements.⁸⁷¹ In addition, what may make successful claims by investors over bona fide environmental or social measures more unlikely in the future is a trend towards the inclusion of exception or carve-out provisions for certain types of regulatory measures in IIAs as well as generally more frequent references to environmental concerns in IIAs.⁸⁷²

In light of the fact that vague clauses on FET and prohibitions of expropriation tend to be interpreted differently by tribunals and in light of concerns how this may affect the regulatory autonomy of states, some agreements include a more detailed wording of these clauses or mechanisms for parties to exercise control over the outcome of arbitration. A prominent example is the Comprehensive Economic and Trade Agreement (CETA)⁸⁷³ between the EU and Canada. Art. 8.10.1 CETA contains a FET clause. The other sub-paragraphs of Art. 8.10 contain a series of requirements that need to be fulfilled for a measure to amount to FET. Moreover, Art. 8.10.3 stipulates that at the request of one Party, Parties “shall regularly review the content of the obligation to provide fair and equitable treatment”, thus establishing a mechanism for Parties to correct potentially undesirable interpretations of the clause by tribunals. Similarly, Art. 8.12 of CETA contains a prohibition on expropriation. Yet Annex 8 A of CETA clarifies that “except in the rare circumstance when the impact of a measure or series of measures is so severe in light of its purpose that it appears manifestly excessive, non-discriminatory measures of a Party that are designed and applied to protect legitimate public welfare objectives, such as health, safety and the environment, do not constitute indirect expropriations.” Thus, a law aimed at a legitimate policy goal and having general application should not, normally, be considered to constitute an expropriation under CETA by an investment tribunal.

Another interesting aspect is whether clauses in investment agreement could also be invoked by investors in case a host country decides to make its environmental or social regulation *less* ambitious over time, which might lead a foreign investor that has a particularly environmentally or socially ambitious business approach to be disadvantaged against competitors. So far, this particular constellation does not seem to have occurred very often; however, there are some recent examples.⁸⁷⁴ Investors in the renewable energy sector have recently brought a large number⁸⁷⁵ of complaints against host states

⁸⁶⁷ International Centre for Settlement of Investment Disputes, Award in *Técnicas Medioambientales Tecmed S.A. vs. United Mexican States*, Case No. ARB (AF)/00/2, para. 122.

⁸⁶⁸ See Klein Bronfman (2005) at 648.

⁸⁶⁹ See for example Annex 10-C 4 b of the Free Trade Agreement between the US, the Dominican Republic and Parties to the Central American Free Trade Agreement (CAFTA); for the broader trend see Keene 2017, at 87.

⁸⁷⁰ See for example Fauchald (2007) at 22.

⁸⁷¹ See Klein Bronfman (2005) at 631 et seq. for examples on the FET clause.

⁸⁷² See for examples and details on this trend Keene (2017).

⁸⁷³ Text available at http://trade.ec.europa.eu/doclib/docs/2014/september/tradoc_152806.pdf.

⁸⁷⁴ See Asteriti (2015) at 253 et seq.

⁸⁷⁵ Sullivan and Kiersey (2017) at 106 counted “43 investment treaty claims arising out of investments in renewable energy (32 cases against Spain; seven cases against the Czech Republic and six cases against Italy by September 2016).

for reducing or cancelling support for renewable energy they had once granted; some of these complaints have been successful.⁸⁷⁶ This shows that, in principle, international investment law can also be used for environmental purposes; however, realistically such types of cases are unlikely to constitute the majority of cases in the foreseeable future.

While most IIAs do not contain rules on specific obligations *for investors*, states have started to include into some more recent agreements either obligations for investors themselves or obligations for states in relation to foreign investments.⁸⁷⁷ Countries could seek to rely on such clauses when faced with legal challenges over measures that require companies to act in a more environmentally or socially responsible way. Indeed, it has been observed that states are starting to more frequently seek to obtain compensation from the investors for violations of the host State's environmental laws.⁸⁷⁸

Institutions: There is a certain degree of variation concerning the institutions that IIAs provide for. More recent comprehensive trade and investment agreements typically have a more complex institutional structure than is true for bilateral investment agreements. Many agreements provide for a joint decision-making body where all parties are represented. Such bodies may have certain specific powers assigned to them, e. g. that of providing authoritative interpretations of the treaty. More comprehensive trade and investment agreements often have additional structures, such as sub-committees tasked with monitoring the implementation of certain parts of the agreement.⁸⁷⁹ Committees where civil society or businesses are represented are also included in some of the agreements (see below, section on stakeholder participation).

Reporting: Parties to IIAs usually do not have to report on their implementation of the agreement.

Evaluation and review: IIAs generally do not contain provisions for review. However, by far the majority of them have a limited initial duration. After the initial period ends, the respective agreements usually are tacitly extended either for an unlimited period of time (with the option for any of the parties to denounce the treaty at any point in time) or for another specified period of time (with the option for denouncing the treaty only once this period ends).⁸⁸⁰ Initial validity periods are often between 5 and 15 years, with an average around 10 years.⁸⁸¹

Compliance procedures, remedies and dispute settlement procedures: In the context of IIAs, compliance procedures set out by the agreement appear to play a negligible role, if any at all. Conversely, dispute settlement procedures are highly relevant. There are two basic types of dispute settlement mechanisms contained in most IIAs⁸⁸²: investor-state arbitration and state-to-state dispute settlement.

Investor-state arbitration is the far more controversial and practically relevant of the two mechanisms; it is contained in the majority of IIAs in one form or the other.⁸⁸³ The respective provisions al-

⁸⁷⁶ See for example International Centre for Settlement of Investment Disputes, Award in *Eiser Infrastructure Limited and En-ergia Solar Luxembourg vs. Spain*.

⁸⁷⁷ See for example Art. 72 of the EU-Cariforum Economic Partnership Agreement.

⁸⁷⁸ Sullivan and Kirsey (2017) at 102.

⁸⁷⁹ See for example Chapter 26 CETA.

⁸⁸⁰ See Pohl (2013) at 7. While Pohl's sample does not comprise all of the IIAs in force today, there is no reason to assume that the overall picture would have changed. However, Pohl notes at 10 that of the more regional and/or comprehensive treaties "concluded since the mid-2000s, an increasing share omits to set initial validity periods"; conversely, bilateral investment treaties continue to come with initial limits to their validity.

⁸⁸¹ See Pohl (2013) at 12 for a sample of more than 2000 IIAs.

IIAs concluded since the mid-2000s less frequently include clauses limiting their initial validity period.

⁸⁸² Roberts (2014) at 3.

⁸⁸³ In a survey of more than 1600 IIAs, Pohl et al. (2012) at 7 found that more than 90% of the treaties contained language on ISDS.

low foreign investors to bring a claim against a host state for violating its obligations from an IIA. Investor-state arbitration procedures are used regularly by investors, with more than 800 such proceedings having been initiated by investors so far⁸⁸⁴.

Allowing individuals/companies to directly bring claims against a state under an international agreement is rather unusual in international law; outside of international investment law similar mechanisms mainly exist in international human rights law. In most agreements negotiated until today, the authority to decide on such claims lies with a panel of three individuals. Their decision is binding and possibilities for appeal are very limited. If the arbitration panel finds a state to be in violation of the IIA, the claimant is awarded monetary damages, which sometimes amount to a substantive sum.⁸⁸⁵ The details of the procedures vary between agreements, but many of them refer either to the rules of the International Centre for Settlement of Investment Disputes (ICSID) or those of the United Nations Commission on International Trade Law (UNCITRAL). An innovation in the present system for settling investment disputes was introduced at the very last stage of the negotiations of CETA between the EU and US. Due to pressures from the EU, parties agreed on a permanent public international investment court system as the venue for investors to bring their claims against one of the parties,⁸⁸⁶ replacing the ad hoc arbitration panels that IIAs have routinely provided for so far.

State-to-state dispute settlement provisions are also contained in most investment treaties.⁸⁸⁷ The underlying provisions typically allow one party to bring a complaint against another party for an alleged violation of the IIA and/or to request an interpretation of the agreement independently of a specific controversy.⁸⁸⁸ The institutional set-up and procedures are usually similar to the ones for investor-state arbitration.⁸⁸⁹ However, the mechanism is infrequently used in practice.⁸⁹⁰

Stakeholder and public involvement: The degree to which stakeholders and the public are involved in IIA negotiations and discussions when they are implemented later on varies between individual agreements and political contexts. The negotiations on investment chapters in some recent trade and investment agreements (notably the Transatlantic Trade and Investment Partnership TTIP and the Comprehensive Economic and Trade Agreements) have attracted a great amount of public attention in some countries. In this context, a public consultation by the EU Commission on investment protection in 2014 received almost 150.000 submissions.⁸⁹¹ However, such huge public debates are certainly not the rule; it is probably fair to say that there is typically a low degree of involvement of civil society during negotiations of IIAs. Many bilateral investment agreements, in particular the older ones, appear to have been negotiated without any noticeable public scrutiny at all, with only some specialised NGOs, international organisations as well as researchers having the capacity to consistently follow the significant number of investment negotiations. However, some parties such as the EU regularly seek feedback of the public on matters of trade and investment policy.⁸⁹²

⁸⁸⁴ See UNCTAD, "Investment Dispute Settlement Navigator", see <http://investmentpolicyhub.unctad.org/ids>.

⁸⁸⁵ The UNCTAD "Investment Dispute Settlement Navigator" includes six cases where an investor was awarded a damage for more than 1 billion USD, another four cases with damages between 0,5 and 1 billion USD awarded and another 24 cases where the damage awarded were between 100 – 500 USD.

⁸⁸⁶ See Chapter 8 F CETA.

⁸⁸⁷ Bernasconi-Osterwalder (2014) at 1.

⁸⁸⁸ For a typology of claims brought in state-to-state dispute settlement under IIAs, see Gaukrodger 2016, at 8 et seq.

⁸⁸⁹ Bernasconi-Osterwalder (2014) at 3.

⁸⁹⁰ Bernasconi-Osterwalder (2014) at 1.

⁸⁹¹ Commission Staff Working Document, Report: Online public consultation on investment protection and investor-to-state dispute settlement (ISDS) in the Transatlantic Trade and Investment Partnership Agreement (TTIP), Brussels, 13 January 2015, SWD(2015) 3 final, http://trade.ec.europa.eu/doclib/docs/2015/january/tradoc_153044.pdf, p. 3.

⁸⁹² For example, see the list of ongoing EU consultations on matters related to trade and investment policy at http://trade.ec.europa.eu/consultations/index.cfm?consul_id%3D179.

Concerning the involvement of business stakeholders and NGOs once an agreement has been ratified, a broad distinction can be made between more recent, comprehensive agreements concluded by a number of developed countries and other agreements. The more recent comprehensive agreements deal with both trade and investment and often include references to environmental protection, labour rights or sustainable development at large. As part of their institutional structure, committees involving both business associations and NGOs are typically established that are tasked with e.g. discussing issues of sustainable development, labour etc.

Assessment

Coherence with other international treaties and policies: Compared to WTO law, there appear to be fewer debates about the relationship of IIAs with other international treaties or policies. This is true even though some investment arbitrations cases have touched upon the relevance of other international law for the resolution of the case at hand.⁸⁹³ In the academic literature, some contributions can be found that analyse the relationship between IIAs on the one hand and the environment⁸⁹⁴ or human rights⁸⁹⁵ on the other. However, these contributions mention hardly any very specific norm conflicts between IIAs and other international agreements. Conflicts appear to occur rather at the level of principles or objectives. This may be due to the character of the obligations contained in IIAs: they usually do not prohibit or mandate specific conduct by host states. The few very specific obligations in IIAs (e.g. a prohibition of expropriations) are hardly of such nature that they would contradict a specific obligation in a different agreement.

At a more conceptual or political level, it could be asked whether the role of IIAs is conducive to overarching goals of sustainable development. This is, however, part of a broader debate about the merits and drawbacks of foreign direct investment generally or their concrete content.

Political weight of the instrument: International investment agreements give legal protection to companies vis-a-vis states that is rarely afforded to individuals, NGOs or even other states. This is one of the reasons why they have become rather controversial in the past few years. Given that by far the majority of them include investor-state dispute procedures, leading to a significant number of investment disputes, controversial cases are likely to continue to arise and attract public attention. This possibly gives IIAs a greater prominence in political discourse than other international agreements have. How central they are in actually influencing the conduct of governments is, however, not very clear (see below on effectiveness).

Consideration of small and medium-scale companies: Reviewing whether specific investment treaties contain rules for SMEs was beyond the scope of the present analysis. However, it is unlikely that there are many specific rules, notably because investments in a different country require a considerable amount of resources, making it less likely for SMEs to engage in such investments than larger companies.

Effectiveness: There is a controversial debate about the impact of IIAs on domestic policy-making, including environmental policy-making. As is the case for WTO law, it is methodologically difficult to offer firm, empirically robust conclusions on the substantive impact of investment agreements on domestic policy-making. The methodological difficulties are linked to the fact that the adoption of specific policies is normally a result of political bargaining processes and therefore it is difficult to isolate the impact of any single factor such as commitments resulting from an IIA. Moreover, showing a negative

⁸⁹³ For an overview, see Mann (2008) at 25 et seq.

⁸⁹⁴ See for example Romson (2011).

⁸⁹⁵ See for example Taillant and Bonitcha (2011).

impact of IIA on environmental-policy making requires showing a counter-factual, i.e. that more environmentally or socially ambitious policies would have been adopted in the absence of the IIA.⁸⁹⁶ Again, these methodological difficulties may be a reason for why there are relatively few in-depth studies of the topic.

There are two case studies by *Côté*⁸⁹⁷, one on the impact of investment agreements and arbitration on decision-making on health, safety and environmental regulation in Canada, the second one on the impact of investment agreements and arbitration on tobacco-related regulation in various countries. She concludes that “the empirical evidence does not support the hypothesis on regulatory chill. While there are some findings which raise the possibility of influence by IIA ISDS cases on the regulatory development process or trends in regulation, there is no consistent observable evidence to support the possibility of regulatory chill.”⁸⁹⁸ She also finds a relatively low level of awareness among regulators on international investment law compared to a somewhat higher awareness about WTO law.⁸⁹⁹ *Van Harten and Scott* investigate whether “ISDS contributed to changes in internal vetting of government decisions related to environmental protection in the province of Ontario, Canada”. They conclude that ministries have changed their decision-making procedures to account for trade and investment-related obligations.⁹⁰⁰ They find that procedures have been put in place for regulatory proposals to be reviewed in the light of commitments from trade and investment agreements; they also report about half of their interviews citing instances where considerations related to trade and investment played a role in decision-making. However, they do not offer many observations on the kind of changes made to planned regulation according to their interviews. They conclude: “We suspect that there may be some cases where an outside researcher, with limited resources and no formal investigative powers, will be able to identify situations in which ISDS risks were a predominant factor in the evolution of a proposed decision. However, in most cases, if ISDS risks are a factor, we expect they will have played an indeterminate role as part of a mix of factors affecting that evolution.”⁹⁰¹ Yet there are clearly individual disputes where states have had to pay damages for actions that involved environmental, public health or other public policy concerns. This is highlighted, in particular, in publications by NGOs.⁹⁰²

In sum, there is mixed evidence of the impact of the international investment agreements on decision-making at the national level. While the regulatory chill thesis is *prima facie* plausible, it remains difficult to show regulatory chill empirically.

Political opportunities and good practice examples:

The ongoing critical debate about international investment law offers some opportunities for international investment treaties to become more open to social and environmental regulation and to safeguarding policy space for their parties. In fact, a number of countries in recent years have changed their approach to investment agreements, with some of them having withdrawn from existing agreements.⁹⁰³ Other countries have not taken such far-reaching measures, but have nonetheless adopted a more careful approach to international investment agreements. This includes seeking a greater degree of precision of central clauses or attempting to safeguard the right to regulate in other manners, sometimes in response to public pressure. In principle, this has the potential to mitigate potential chilling effects that international investment agreements may have on domestic regulation. Some even predict

⁸⁹⁶ For methodological difficulties in studying the impact of international economic law on domestic policy-making, see for example Tienhaara (2011) at 607 et seq.; Tietje et al. (2014) at 41.

⁸⁹⁷ *Côté* (2014).

⁸⁹⁸ *Côté* (2014) at 16.

⁸⁹⁹ *Côté* (2014) at 191f.

⁹⁰⁰ *Van Harten and Scott* (2015) at 2.

⁹⁰¹ *Van Harten and Scott* (2015) at 25.

⁹⁰² See for example Corporate Europe Observatory and Transnational Institute 2013.

⁹⁰³ For a short overview of measures taken by countries sceptical of international investment agreements in the recent past, see Asteriti (2015) at 249f.

that the current discussions about the legitimacy of the international investment regime may lead to a shift to domestic instruments for setting out the legal framework for a foreign investment.⁹⁰⁴

Altogether it is possible that the international investment regime of the future will pose fewer impediments to social and environmental regulation of states than it does at present. At the same time, it is unlikely that many states will be willing to embark on a path towards more fundamental reforms of IIAs that could convert IIAs in a tool for promoting environmentally and socially responsible conduct of investors (e.g. by including rules on investor obligations or environmental obligations of states in relation to investments).

2.1.5 Overarching assessment of binding international law

There are few binding international law obligations, emerging principles and concepts analysed in this study that specifically address mining activities. There are **almost no obligations specifically relating to mining** such as a general obligation to make mining subject to a permit, or to restore environmental degradation afterwards, or regarding liability. Most of the specific norms are restricted to certain geographical areas or resources:

As a starting point, the principle of permanent sovereignty over natural resources determines that sovereignty over territory includes the exclusive right to decide whether and how to access and exploit its natural resources. Other states, e.g. such with no resources of their own, have no right to access them. It does not address resources outside areas of national jurisdiction. The principle is not as such limited by a general duty to protect the environment of the state concerned. However, the principle is not absolute but has to be exercised in accordance of other obligations, i.e. within the limits of e.g. environmental or investment law.

For *specific geographical areas*, the rules under UNCLOS and its Implementing Agreement for the deep seabed are near universal and form a comprehensive regulatory regime for mineral resources. The deep seabed and its resources are defined as “common heritage of mankind” and not subject to sovereign rights. The regime is clearly focused on exploiting mineral resources for the benefit of all. Mining activities have to be conducted in accordance with the Mining Code and social standards that are continuously developed by the International Seabed Authority.

In the Antarctic, the Environmental Protocol of 1991 designates the Antarctica as a natural reserve and prohibits any activities relating to mineral resources except for scientific research. The obligatory system of inspections by observers is a strong compliance instrument and quite rare in the environmental field.

With regard to *specific resources*, the Minamata Convention on mercury aims at phasing out mercury production completely. It has the potential to reduce some environmental and health impacts associated with other resource extraction processes, insofar as mercury emissions and releases are concerned. It uses a broad range of steering tools and is one of the few legal instruments that purposefully and explicitly address non-parties by regulating trade with them. It also specifically addresses *small and artisanal mining*. As the Convention has only recently entered into force, its effectiveness will depend largely on implementing decisions and guidelines to be developed.

The Espoo Convention establishes *cross-cutting obligations* for environmental impact assessment of mining activities, including procedural details. However, it only applies to activities that are likely to cause significant adverse *transboundary* impacts. Although it only has 45 parties so far, it could serve as a best practice example.

ILO Convention 176 on Safety and Health in Mines, together with a non-binding implementing Recommendation, appears to be the only internationally agreed *social standard* for safety and health in mines

⁹⁰⁴ Asteriti (2015) at 251.

as a workplace. Parties have to assign tasks to a competent authority, employers and workers in national laws and regulations. However, oil and gas are excluded from the scope of ILO C176, and only 33 countries have joined the Convention so far, including Russia, Germany, Sweden and the United States. In addition, although ILO C176 establishes compliance procedures, enforcement of the Convention is weak.

However, **general environmental rights and obligations virtually always also apply to mining.** For instance, the scope of customary obligations such as the duty to prevent transboundary harm and the duty to carry out an environmental impact assessment also includes mining activities. The obligations under the Biodiversity Convention, the UNCCD, the Paris Agreement on Climate change, the World Heritage Convention, and the UNECE Water Convention, all include mining activities in their different governance approaches.

Human rights standards have to some extent been interpreted to include environmental protection, notably where environmental conditions affect human health, but so far there is no established general right to a decent environment. Procedural approaches such as those enshrined in the 1998 Aarhus Convention have not fundamentally changed the focus of the traditional human rights instruments. The issue of whether human rights treaties can be applied extra-territorially is relevant particularly for transboundary pollution and also to enforcing human rights abroad, but remains unresolved.

The ILO's labour standards include ILO Convention 148, which applies generally on hazards in the working environment relating to air pollution, noise and vibration, and ILO Convention 176 on Safety and Health in Mines. As with ILO C176, participation in ILO C148 is not widespread with 46 parties. In addition, there is a high imbalance towards Europe with regard to ratification.

Although it is generally applicable, **international environmental law has gaps, which also relate to mining.** Just as the body of international environmental law does not provide comprehensive and coherent protection of the environment, the sum of its obligations does not comprehensively cover all environmental issues relating to mining. In addition, the impact of customary international law and emerging or proposed principles on mining are difficult to ascertain because their legal status, normative content, or both are often not established, unclear or abstract. They could serve as a counterweight to the sovereign right to exploit natural resources, and there could be political opportunities to use them to interpret existing norms. But ascertaining particular gaps in relation to specific environmental risks from mining is difficult because most obligations under international environmental law are quite general and this study only addresses a limited number of selected norms.

International trade and investment law is mainly a potential impediment to environmental and social standards. The WTO system basically does not *require* such standards but instead determines to what extent states may be *permitted* to set such standards. Because its rules impose limits on domestic regulation of trade in goods, the GATT can limit a country's options for making the production of natural resources more sustainable. In view of the comparatively strong dispute settlement mechanism States might be reluctant to consider binding rules in this area in order to avoid problems with trade. However, the practical effects of the GATT in regulating the production of and trade in natural resources are not clear, because there are unresolved questions of interpretation and empirical effects of international economic law on national politics are difficult to ascertain. International investment agreements often impose limits on domestic regulation of foreign investment. Most agreements also contain a mechanism allowing foreign investors to bring claims for damages against the government of the host country for not complying with obligations under the agreement. Yet it is difficult to ascertain empirically whether these agreements have a chilling effect on national regulation. On the other hand, there are indications that certain elements in international investments agreements can actually be used to hold states accountable to existing environmental commitments. States are also starting to seek to obtain compensation from the investors for violations of the host state's environmental laws.

However, considering that IIAs are normally aimed at promoting foreign investment, this is unlikely to become their main function.

The instruments show a **broad range of governance and steering tools**: The CBD, UNCCD and World Heritage Convention generally address a particular good such as biodiversity or soil. Other instruments use public information relating to pollutant releases. Some use procedural approaches such as environmental impact assessments (CBD, Espoo, customary obligation) or ex-ante planning processes (Paris Agreement, UNCCD). Principles such as common heritage of humankind establish some form of international legal interest in the management of mineral resources, but so far focus on allocating access or benefits. Their legal status and content are evolving and there is no commonly accepted principle that states have particular obligations specifically regarding its mineral resources. Human rights and labour standards obligations that protect individuals have weak participation (ILO) or enforcement (ILO, ICCPR, ICESCR) and conceptual limitations regarding the environment.

There is **no clear link or discernible deliberate division of labour between binding and non-binding or other approaches**. So far, neither non-binding political initiatives nor other non-state approaches relating to mining appear to have spurred the development of binding obligations. However, this does not exclude from the outset that existing non-binding approaches could be used to either build political will in this regard, show feasibility or serve as a model.

These considerations will have to be taken into account when **developing policy recommendations** in the following section.

The absence of obligations specific to mining activities can hardly be explained by reference to restrictions to sovereignty alone. Any international environmental obligation is to some extent a restriction of sovereignty. States are likely to be generally careful in accepting any international obligation. Perhaps there are **reasons specific to mining** that make states *particularly* reluctant to develop and agree on obligations in this area? Potential reasons could be that (i) having natural resources is historically perceived to be linked to a higher degree of autonomy; (ii) natural resources are a (free) source of national income; (iii) states are more willing to agree to international obligations in cases where there the environmental risks or impacts are transboundary, which is the case for mining only to a limited extent; (iv) mining is a *specific* activity in a particular economic sector and binding international environmental law rarely addresses such activities - although there are exceptions such as the International Maritime Organisation (IMO), the International Civil Aviation Organisation (ICAO), and with regard to specific risks such as oil pollution. In particular point (iii) could be an impediment for new obligations if both assumptions hold true.

Existing instruments could be used to more specifically address mining activities. There could also be a trend to open successful regional treaties to global participation. The UNECE in particular appears to try this approach e.g. with the Aarhus Convention and the Water Convention. Another hypothesis to be explored could be that because of these gaps and deficiencies, international investment law is becoming the place where environmental standards are (or should be) determined.

2.2 Non-binding international standards addressing mining activities

2.2.1 Detailed assessment of selected instruments

Recent publications on soft law and legally non-binding instruments⁹⁰⁵ identified more than 40 different instruments. Since there are strong overlaps in the basic approaches, the project team selected in consultation with the German Environment Agency five instruments which cover the most relevant

⁹⁰⁵ Kickler and Franken (2017); UmsoRess (2015); International Resource Panel (2019): Mineral Resource Governance in the 21st Century. Summary for policymakers and business leaders, available at <http://www.resourcepanel.org/reports/mineral-resource-governance-21st-century>.

approaches and represent the whole range of instruments well. For these five selected instruments, detailed assessments are provided in the following subchapters. The five selected instruments are:

- ▶ OECD Due Diligence Guidance
- ▶ World Bank Environmental and Social Framework
- ▶ Towards Sustainable Mining (TSM)
- ▶ FairMined and FairTrade
- ▶ Aluminium Stewardship Initiative (ASI).

The selection intentionally does not include any frameworks which address governmental action such as the principles of the Natural Resource Governance Initiative (NRGI) or the Intergovernmental Forum (IGF). Their main focus areas are good governance, socio-economic contribution from mining and appropriate revenue management, and they also touch briefly upon environmental topics.

2.2.1.1 The OECD Due Diligence Guidance

Table 26: OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk-Areas

Key aspects	Summary
Form and legal status	Not binding
Objectives	To support companies in minerals related supply chain due diligence
Parties	All OECD states (incl. Germany) + further adhering countries + industry & civil society stakeholders
Territorial scope	Conflict-affected and high-risk areas
Resources covered	Minerals in general. Specific supplements for tin, tantalum, tungsten and gold
Steps of the value chain	Entire value chain (from extraction to use in manufactured products)
Steering tool	Multi-stakeholder group. Implementation on support by additional activities and materials.
Assessment	++

Summary

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk-Areas (OECD DD Guidance) is a set of recommendations to all companies in supply-chains of minerals from mining to the manufacturing of finished-goods. The Guidance exclusively addresses human rights issues and conflict financing, which is mainly due to the fact that it is policy reaction to the wars, atrocities and insecurity in the African Great Lakes Region. While the core of the OECD DD Guidance is a five step framework, it leaves lot of room for scaling depth and level of detail of implementation. While the OECD DD Guidance is designed as a set of voluntary recommendations, its application is a compliance necessity for various companies affected by the US Dodd-Frank Act and the upcoming EU conflict mineral regulation.

Due to its strong focus on human rights and conflict, it is quite unlikely that environmental issues will be taken up by the OECD DD Guidance in the near future. Nevertheless, the general concept of due diligence, including the five-step framework, can serve as a blueprint for supply-chain due diligence approaches on environmental issues. In contrast to the OECD approach, the 2015 Chinese Due Diligence Guidelines addresses environmental issues, however the practical implementation of these risks is currently set aside, in order to prioritize in the first implementation stage on violent conflicts and worst human right abuses.

History & context

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk-Areas mainly goes back to two major developments:

- ▶ The discussion on corporate social responsibility (CSR) and the role of companies (and in particular multinational enterprises) to reduce negative social and environmental impacts and to contribute to wellbeing of societies.
- ▶ The wars and continuous insecurity in the African Great Lakes Region, and particular the situation in the eastern Democratic Republic of the Congo (DRC) where extraction and trade of minerals have been used (and are partly still used) to finance armed groups in the region.

The discussion on CSR and the role of multinational companies stretches back several decades and is closely linked to globalization and the increasing importance of multinational companies in many sectors. Amongst others, this discussion led to the adoption of the OECD Declaration on International Investment and Multinational Enterprises in 1976, including its annex, the OECD Guidelines for Multinational Enterprises (in the following referred to as OECD MNE Guidelines). The OECD MNE Guidelines have been revised several times and are a set of recommended principles and standards for responsible business conduct in the global operations of companies⁹⁰⁶. Revisions have been carried-out in light of practical experiences, as well as the progressing global debate on CSR, as well as the legal and moral responsibilities of companies' activities in countries with weak governance. The OECD MNE Guidelines also contain a *proactive agenda* mechanism that assigns National Contact Points (NCPs)⁹⁰⁷ to maintain regular contact with stakeholders in order to consider new developments, to support positive contribution of enterprises, and to participate in collaborative initiatives to identify and respond to risks associated with particular products, regions, sectors or industries⁹⁰⁸.

In the 2011-version of the OECD MNE Guidelines recommends that all companies in all sectors carry out due diligence to identify, prevent and mitigate actual or potential human rights impacts of their operations or sourcing decisions. To support the implementation of this recommendation, OECD developed a series of guidance documents for specific human rights related challenges within the *proactive agenda*. This includes guidance documents on minerals from conflict-affected and high-risk areas⁹⁰⁹, meaningful stakeholder engagement in the extractive sector⁹¹⁰, responsible supply chain management in the garment and footwear sector⁹¹¹ and responsible business conduct in the agricultural supply chain⁹¹².

One development that significantly increased the importance of this OECD work has been the UN-endorsement and global recognition of the Guiding Principles for Business and Human Rights since 2011. This so-called 'Ruggie Framework' explicitly specifies that "business enterprises should respect human rights" by avoiding causing or contributing to adverse human rights impacts through their own activities, and by "prevent[ing] or mitigate[ing] adverse human rights impacts that are directly linked to their operations, products or services by their business relationships"⁹¹³. Although this specification is not legally binding, it documents a global consensus that corporations have – alongside governments –

⁹⁰⁶ OECD (2011).

⁹⁰⁷ Each country adhering to the OECD MNE Guidelines has to set up a National Contact Point responsible for promoting the Guidelines on a national level and to handle enquiries and complaints related to the Guidelines' recommendations.

⁹⁰⁸ OECD (2011).

⁹⁰⁹ OECD (2016a).

⁹¹⁰ OECD (2017a).

⁹¹¹ OECD (2017b).

⁹¹² OECD & FAO (2016).

⁹¹³ United Nations (2011).

the responsibility to care for human rights issues in their direct and indirect business activities. Therefore, the OECD guidance documents provide important entry points for companies to structure their human rights related activities.

The wars and continuous insecurity in the African Great Lakes Region reach back to the genocide in Rwanda in 1994, which was a major event triggering the international policy debate on ‘responsibility to protect’. This concept marks a shift away from the unrestricted sovereignty of nation states and entails a responsibility to protect all populations from mass atrocity crimes and human rights violations – even in cases where such crimes are committed in other jurisdictions. The genocide in Rwanda developed into a major trauma for the international community as it proved incapable of preventing and stopping it. In addition, the events in Rwanda caused a massive spill-over of war and insecurity into the neighbouring DR Congo and were the major trigger for the First Congo War 1996-1997 and subsequently also the Second Congo War from 1998-2003 which caused several million fatalities and is known as the deadliest war of the last decades.

Even after the formal end of the Second Congo War, instability continued and a series of reports by UN expert groups identified extraction and trade of minerals as a major factor prolonging insecurity in the eastern parts of the DR Congo⁹¹⁴. While this insecurity remains an important issue until today, estimates suggest that – even after the formal end of the Second Congo War – violence and mortality in the eastern DR Congo remained at an unchanged high level between 2003 and around 2007⁹¹⁵.

As one out of several responses, an UN Group of Experts first came up with the suggestion of supply chain due diligence for minerals from the African Great Lakes Region in 2010⁹¹⁶, which was backed by UN Security Council Resolution No. 1952 in the same year. This resolution “calls upon all States to take appropriate steps to raise awareness of the due diligence guidelines [...] and to urge importers, processing industries and consumers of Congolese mineral products to exercise due diligence by applying the aforementioned guidelines, or equivalent guidelines [...]”⁹¹⁷. From this background, OECD took-up the further development of the five-step due diligence guidance, which is today available in its third edition and, from its geographic scope, not limited to the African Great Lakes Region⁹¹⁸. The OECD Due Diligence Guidance (in the following referred to as OECD DD Guidance) gained political and practical relevance after passing of the US Dodd-Frank Act mid-2010. Section 1502 of the Act requires companies listed on the US-American stock exchange market to conduct due diligence for tin, tantalum, tungsten (including their ores) and gold used in their products. The related Dodd-Frank Act requirements are explicitly tailored to the situation in the DR Congo and are aimed to prevent the financing of illegal armed groups in the African Great lakes Region.

Although the Dodd-Frank Act does not specifically refer to the OECD DD Guidance (which had not yet been available in a final version when the Dodd-Frank Act was passed), the OECD DD Guidance was and still is the only internationally recognised approach to conduct supply chain due diligence for minerals from conflict affected regions such as the eastern DR Congo.

The political and practical importance of the OECD DD Guidance is further enhanced by the new EU conflict mineral regulation (EU 2017/821) that has an explicit reference to the OECD DD Guidance.

In 2015, the China Chamber of Commerce of Metals, Minerals & Chemical Importers and Exporters (CCCME) launched the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains. It results from an intense CCCME - OECD cooperation. But the Chinese due diligence guideline does not only show high similarities for risks associated to violent conflicts and serious human right abuses. On top of these risks it also includes environmental, social and ethical issues. However, the latter issues

⁹¹⁴ Manhart and Schleicher (2013).

⁹¹⁵ Sterns (2011).

⁹¹⁶ Debelle et al. (2010).

⁹¹⁷ UN Security Council, Res. 1952 (2010), 29 November 2010, S/RES/1952 (2010).

⁹¹⁸ OECD (2016a).

are not addressed yet in the current implementation phase with its strong focus on conflicts and worst human right abuses in the mining sector outside of China.

Form and legal status

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk-Areas is a guidance document “intended to help companies implement responsible business conduct standards in their mineral supply chain and prioritise severe risks associated with mineral production and trade”⁹¹⁹. Thus, the guidance is a set of recommendations to companies of all sectors using minerals or materials produced from minerals (e.g. metals).

All 35 OECD members and nine non-members have adhered to the OECD DD Guidance (see Table 27). In addition, then UN Security Council Resolution No. 1952 from 2010 (when the OECD DD Guidance where only available in a draft version) can be interpreted in a way that the international community supports the approach of mineral related due diligence as specified in the OECD DD Guidance. In addition, the OECD DD Guidance is a result of a multi-stakeholder effort that encompassed 11 Central African countries, industries and civil society organizations, which further supports its global recognition.

Table 27: Countries adhering to the OECD DD Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk-Areas

Status	Countries
OECD-members	Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States
Adhering non-OECD countries	Argentina, Brazil, Colombia, Costa Rica, Latvia, Lithuania, Morocco, Peru, Romania
Additional countries involved in the development of the OECD DD Guidance	Angola, Burundi, Central African Republic, Republic of Congo, Democratic Republic of Congo, Kenya, Rwanda, Sudan, Tanzania, Uganda, Zambia

The OECD DD Guidance was recognised by the US Security and Exchange Commission (SEC) as a suitable method to implement the mandatory due diligence required by Section 1502 of the U.S. Dodd-Frank Act⁹²⁰. In addition, the conflict mineral regulation developed by the European Union refers to the OECD Due Diligence Guidance⁹²¹ and makes its application mandatory for large importers of tin, tantalum, tungsten (and their ores) and gold. The application of the guidance by other industries will be voluntary under this EU scheme⁹²². Due to these regulatory schemes, as well as related initiatives by China⁹²³, the voluntary guidance document has in fact a legally binding nature in selected contexts.

Objectives: The aim of the OECD DD Guidelines is to support all companies in the mineral supply chains that supply or (directly or indirectly) use minerals sourced from conflict-affected or high-risk areas to ensure that they do not contribute to human rights abuses or conflict.

Territorial scope: The application of the OECD DD Guidelines is voluntary recommended to all companies of mineral supply chains that may be linked to human rights abuses or conflict.

⁹¹⁹ OECD (2016b).

⁹²⁰ US Securities and Exchange Commission (2012).

⁹²¹ Albeit the second edition.

⁹²² European Parliament, 22.11.2016.

⁹²³ Rüttinger et al. (2015c).

It addresses all mineral supply chains from conflict-affected and high-risk areas. Although a general definition of the terms ‘conflict-affect’ and ‘high-risk areas’ is provided in the OECD DD Guidance, the practical translation of these definitions into geographical areas is not provided by the guidance or the OECD. While this leaves some room for interpretation, a voluntary expert group is currently working on the identification of independent data sources and approaches to support businesses to identify areas and the associated human rights risks as defined by the guidance.

Type of steering tool: The OECD Due Diligence Guidance is a tool that was classified as a “new foreign accountability norm”⁹²⁴ that asks economic operators to care for the conditions under which natural resources are extracted – even if these natural resources are extracted in other jurisdictions. While the OECD DD Guidance does not prescribe the compliance with a defined standard or list of criteria, it recommends implementing a risk management system to increase corporate awareness of potential human rights issues in mineral supply-chains and to stimulate continuous improvement processes.

The OECD DD Guidance has been developed in a multi-stakeholder effort encompassing OECD-members, 11 Central African countries, industries and civil society organizations. Reviews of the guidance are also done in stakeholder consultation processes. The implementation of the OECD DD Guidance is monitored by the OECD Investment and Development Assistance Committee. Monitoring reports are prepared every three years and submitted to the OECD Council⁹²⁵.

Implementation of the guidance is supported by OECD by various means, including outreach and awareness raising activities with non-Adherent countries, pilot surveys on its implementation in up- and downstream industries and the development of support material such as the ongoing efforts for a Material Risk Handbook.

Links to extraction, processing and transport of resources

Resources covered: All types of minerals that origin from conflict-affected and high-risk areas. Supplements give additional guidance on tin, tantalum, tungsten and gold (3TGs), which are the major conflict financing minerals in the African Great Lakes Region.

Environmental and social impacts covered: The OECD DD Guidance does not cover environmental impacts as it is mainly a reaction on the wars, insecurity, conflict financing and human rights abuses in central African countries (see History & context). As a consequence, it focuses on human rights issues, namely:

- ▶ any forms of torture, cruel, inhuman and degrading treatment;
- ▶ any forms of forced or compulsory labour;
- ▶ the worst forms of child labour (as defined by ILO Convention No. 182);
- ▶ other gross human rights violations and abuses such as widespread sexual violence;
- ▶ war crimes or other serious violations of international humanitarian law, crimes against humanity or genocide.

In addition, the OECD DD Guidance addresses the direct or indirect support of non-state armed groups, the conduct of private security forces, bribery and fraudulent misrepresentation of the origin of minerals, money laundering and the correct payment of taxes and royalties to governments.

Steps of the value chain covered: The OECD DD Guidance cover the entire value chain from extraction to use in manufactured products. But they also recognize that “the nature and extent of due diligence that is appropriate will depend on individual circumstances and be affected by factors such as the size

⁹²⁴ Partzsch and Vlaskamp (2016).

⁹²⁵ OECD (2016b).

of the enterprise, the location of the activities, the situation in a particular country, the sector and nature of the products or services involved”⁹²⁶.

Content

The core of the OECD DD Guidance is the five-step due diligence framework. Basically, the OECD DD Guidance recommends that all companies in supply-chains of minerals from mining to the manufacturing of finished-goods apply this five-step framework in their business routines and practices. The framework consists of the following steps:

1. Establish strong company management systems;
2. Identify and assess risk in the supply chain;
3. Design and implement a strategy to respond to identified risks;
4. Carry out independent third-party audit of supply chain due diligence at identified points in the supply chain;
5. Report on supply chain due diligence.

While the OECD DD Guidance gives some level of explanations to these five steps, it also makes clear that “flexibility is needed in the application” and that “the nature and extent of due diligence that is appropriate will depend on individual circumstances and be affected by factors such as the size of the enterprise, the location of the activities, the situation in a particular country, the sector and nature of the products or services involved”⁹²⁷. Thus, the recommended five-steps are a framework for due diligence implementation that still requires a series of company decisions on the exact implementation of each step. With this approach, the OECD due diligence framework differs significantly from other voluntary schemes such as certifications and standards that mostly follow clearly defined criteria and checklists. In fact, the due diligence framework leaves a lot of room for company decisions and approaches – as long as they focus on human rights risks and follow the five-step approach. Amongst others, the OECD encourages companies to implement strategies such as industry-wide cooperation in building capacity to conduct due diligence, cost-sharing within industry for specific due diligence tasks, and participation in initiatives on responsible supply chain management⁹²⁸.

Related initiatives

This quite openly defined due diligence framework coupled with the fact that such due diligence is a compliance necessity for various companies (see section on Form and legal status) stimulated the emergence of a broad variety of initiatives that support company- and supply-chain implementation of due diligence as defined in the OECD DD Guidance. This includes, but is not limited to the following initiatives that offer solutions to due diligence step No. 3 and 4:

- ▶ ITRI Supply Chain Initiative (iTSCi) initiated a certification schemes for minerals from Central African countries. Minerals from mines that have been found to be free from human rights abuses and links to armed conflicts are packed in sealed sacks and exported together with a certificate ensuring that mining and trade of these commodities have not been linked to human rights abuses and conflict.
- ▶ The Conflict-Free Smelter Program (CFS) by the electronics industry is a certification of smelters for tin, tantalum and tungsten. Each certified smelter has to deliver proves about the sources of the

⁹²⁶ OECD (2016a).

⁹²⁷ OECD (2016a).

⁹²⁸ OECD (2016a).

used commodities. For deliveries from the DR Congo or any neighboring country, additional certificates (such as iTSCI) need to prove that mining and trade of this material were not interlinked with human rights abuses and conflict.

- ▶ Comparable certifications also exist in the gold supply-chain, namely the Conflict-Free Gold Standard by the World Gold Council and the Chain-of-Custody Certification of the Responsible Jewellery Council.
- ▶ Chinese Due Diligence Guidelines (see section on History & context)

Assessment

Coherence with other international treaties and policies: The OECD Due Diligence Guidance is in line with the UN Guiding Principles for Business and Human Rights that specify the roles and responsibilities enterprises and governments for protecting human rights. This so-called ‘Ruggie Framework’ explicitly specifies that “business enterprises should respect human rights” by avoiding causing or contributing to adverse human rights impacts through their own activities, and by “prevent[ing] or mitigate[ing] adverse human rights impacts that are directly linked to their operations, products or services by their business relationships⁹²⁹. Although this specification is not legally binding, it documents a global consensus that corporations have – alongside governments – the responsibility to care for human rights issues in their direct and indirect business activities. In this context, the OECD DD Guidance provides important guidance for companies to structure their human rights related activities.

Political weight of the instrument: Although being a voluntary set of recommendations, the OECD DD Guidance developed into a tool with high political weight. As recognised by the OECD report monitoring the implementation of the OECD DD Guidance, this weight is particular due to the various legal instruments, most notably Section 1502 of the US Dodd-Frank Act and the planned EU conflict mineral regulation⁹³⁰. In this context it has to be noted that the new US-administration announced to review the Dodd-Frank Act with the goal to relax or annul various of its provisions^{931, 932}.

Consideration of small and medium-scale companies: The OECD DD Guidance “applies to all companies in the mineral supply chain that supply or use minerals sourced from conflict-affected or high-risk areas”⁹³³ and therefore also includes small and medium-sized enterprises. Nevertheless, the “Guidance recognizes that due diligence [...] presents practical challenges” and that the nature and extent of due diligence that is appropriate will depend on individual circumstances and be affected by factors such as the size of the enterprise [...]”⁹³⁴. Thus, the OECD DD Guidance leaves quite a lot of room for scaling the implementation of the five-step due diligence framework according to companies’ implementation capacities.

Effectiveness: The effectiveness of the OECD DD Guidance can be gauged by level of uptake by companies and supply chains, and by their impacts on mining and minerals trade in conflict-affected and high-risk areas. While the level of uptake was found to be considerable, in particular related to tin, tantalum, tungsten and gold from the African Great Lakes Region by the Responsible Minerals Initiative (formerly Conflict-Free Sourcing Initiative (CFSI)), application in other mineral supply chains is still in its infancy.

⁹²⁹ United Nations (2011).

⁹³⁰ OECD (2016b).

⁹³¹ Status in September 2018: The Dodd Frank Act is still not suspended. Available online at https://www.washingtonpost.com/news/monkey-cage/wp/2018/09/27/trump-canceled-the-conflict-minerals-provision-of-dodd-frank-thats-probably-good-for-the-congo/?noredirect=on&utm_term=.c66a92bcbcd8, last accessed on 28.02.2019.

⁹³² BBC (2017).

⁹³³ OECD (2016a).

⁹³⁴ OECD (2016a).

Regarding its impacts on mining and minerals trade in conflict-affected and high-risk areas, the OECD monitoring report states that “there are increasing indications that due diligence is working towards breaking the link between mineral extraction and trade and conflict in the Great Lakes region”, while it is at the same time “difficult to demonstrate the actual effects on the economic development of local communities and the overall improvement of their living conditions”⁹³⁵. These difficulties are mainly rooted in the fact that large areas of the African Great Lakes Region – and in particular the eastern parts of the DR Congo – are quite inaccessible for systematic monitoring efforts. Furthermore, there is no systematic baseline assessment on the socio-economic conditions in mining sites before the OECD Due Diligence Guidance was introduced. While some authors stress that the OECD DD Guidance together with Section 1502 of the Dodd-Frank Act and a local ban of artisanal mining have led to a loss of income opportunities of small scale miners, other observers emphasize positive effects socio-economic effects in mining sites with certified outlets⁹³⁶.

Political opportunities and good practice examples:

Due to its focus on human rights and conflict, the OECD DD Guidance is currently no entry point for environmental issues in mineral supply chains. An extension of issues to environmental concerns is currently quite unlikely as this might easily overload the Guidance. This is also reflected in the recommendations by the recent OECD monitoring report: While the authors recommend increased implementation of the OECD DD Guidance beyond tin, tantalum, tungsten and gold, there is no recommendation for changing the general scope of human rights and conflict⁹³⁷.

Nevertheless, the general concept of a five-step due diligence approach and the fact that a broad range of companies started to adapt this framework are important opportunities: While the five-step due diligence approach can be expanded to other hot spots in supply chains on a voluntary base, the concept can also be utilized by legislative instruments requiring supply chain due diligence on other issues. Due diligence requirements on environmental issues have already been introduced in the EU timber regulation (Regulation (EU) No 995/2010) that prohibits placing illegally harvested timber or timber products on the EU market.

⁹³⁵ OECD (2016b).

⁹³⁶ OECD (2016b).

⁹³⁷ OECD (2016b).

2.2.1.2 The World Bank Environmental and Social Framework

Table 28: Overview on the World Bank Environmental and Social Framework

Key aspects	Summary
Form and legal status	Not binding (binding for all World Bank projects)
Objectives	To achieve sustainable results for all projects financed by the World Bank
Parties	World Bank Group, including borrowers and projects
Territorial scope	Global (due to World Bank focus mostly developing countries)
Resources covered	Depending on type of project
Steps of the value chain	Depending on project to be financed
Steering tool	Project specific risk assessments, Environmental and Social Commitment Plan & Monitoring grievance mechanisms
Assessment	++

Summary

In the late 1980s and early 1990s the World Bank started to develop its Safeguard Policies (SGPs) as response to criticism on various large scale infrastructure projects. It is a core element of the World Bank policies and aims to insure that all World Bank financed projects achieve sustainable results. The Safeguard Policies have been repeatedly changed and updated in response to upcoming issues and evolving operational priorities. This resulted in various inconsistencies and contradictions so that a new policy - World Bank Environmental and Social Framework (ESF) – was developed and started to be introduced in 2016. From October 2018 it applies to all new World Bank investment project financing. Both policies are packages of minimum standards and the specification of processes and roles & responsibilities to insure that these minimum standards are adhered to and implemented in World Bank financed projects. While they are not tied to national and international law, they are part of the World Bank's financing conditions and therefore binding to all World Bank projects and their implementation partners. While the applied social and environmental standards cover a wide range of sustainability issues, both policies are process orientated so that they are not applied in a uniform manner across all projects. Instead, implementation strongly depends on the identified risks and impacts, as well as the type of project and the national legislative framework conditions a project is subject to.

While the policies and the environmental and social standards are not industry specific, there are general and industry-specific Environmental, Health and Safety Guidelines (e.g. for the mining sector), which have the status of mandatory technical reference documents for all related projects.

Both, the World Bank policies, as well the underlying standards and technical references also referred to in the equator principles, which is a comparable set of principles and policies that is applied by 90 other financing institutions from 37 countries. Therefore, the policies entail important minimum requirements for a wide range of investment project seeking financing from the World Bank or one of the Equator Principles Financial Institutions.

History & context

Since the 1980s, The World Bank and other international finance institutions faced increasing criticism regarding their investment decisions and project portfolios in developing countries. In particular, criticism focused on investments into large industry- and infrastructure projects often neglecting adverse impacts on communities and local and regional ecosystems. While the financing of large hydro-

dams were often in the centre of such criticism⁹³⁸, also support to extractive industry projects was challenged⁹³⁹. As a reaction, the World Bank started to develop its Safeguard Policies (SGPs) in the late 1980s and early 1990s that are applied to the bank's programmes and projects financing public sector activities. The Safeguard Policies have been repeatedly changed and updated in response to upcoming issues and evolving operational priorities. This resulted in various inconsistencies, contradictions and the "co-mingling of values, policy statements, Borrower requirements and detailed procedural aspects"⁹⁴⁰. As a consequence, the World Bank initiated an extensive review process in 2012 that led to the approval of a new Environmental and Social Framework (ESF). It applies from October 2018 to all new World Bank investment project financing and will start to replace the existing World Bank Safeguard Policies⁹⁴¹. The ESF encompasses the bank's vision for sustainable development, the Environmental and Social Policy (ESP), and Environmental and Social Standards (ESS). While the ESP sets out the mandatory requirements to the Bank, the ESS sets out the mandatory requirements that apply to the borrowers and projects (see Figure 4).

Figure 4: World Bank Vision for Sustainable Development



Source: Overview of the World Bank Environmental and Social Framework⁹⁴²

In a parallel effort, the International Finance Corporation (IFC)⁹⁴³ developed the Environmental and Social Performance Standards (ESPSs), which were adopted by IFC in 2006 and revised in 2012. While both policies (the SGPs and the ESPSs) have the aim to ensure that all projects of the World Bank Group are in line with a number of social and environmental criteria, they follow different structures: While the SGPs include provisions for the Bank and all project partners, the ESPSs mainly specify the standards and requirements for private sector clients.

While the new Environmental and Social Framework (ESF) will replace the Safeguard Policies, the IFC Environmental and Social Performance Standards will not be affected by this reform. Nevertheless, Table 29 already indicates that the Environmental and Social Standards of the new ESF and the IFC Environmental and Social Performance Standards have large coherencies in terms of content and structure.

⁹³⁸ Rüttinger et al. (2015b).

⁹³⁹ World Bank (2004).

⁹⁴⁰ World Bank (2014).

⁹⁴¹ As current projects have been planned and initiated using the procedures of the Safeguard Policies, a transition period of seven years is considered until the SGPs are fully replaced by the new ESF policy. See <http://www.worldbank.org/en/projects-operations/environmental-and-social-policies#safeguards> (last accessed on 28.02.2019).

⁹⁴² World Banks (2016b).

⁹⁴³ IFC is a member of the World Bank Group and in charge of financing private sector led projects.

From a policy level, the Safeguard Policies (SGPs) and the new Environmental and Social Framework (ESF) are the main sustainability policies of the World Bank Group. Although the IFC Environmental and Social Performance Standards are recognized in lieu of the SGP operating principles for IFC projects, their content is closely aligned.

Overview

Form and legal status: The World Bank Safeguard Policies – and in the future, the new Environmental and Social Framework (ESF) – are not tied to any national and international law, but are part of the World Bank’s financing conditions. According to the World Bank’s policies, they need to be mandatory applied in all public sector projects financed by the bank. While the World Bank conducts own assessments of social and environmental risks of proposed projects, the borrower is required to do additional assessments and to “take specific measures or actions to avoid, minimize, reduce or mitigate specific risks and impacts of the project” and to make sure that the project is in line with the 10 Environmental and Social Standard specified by the policy⁹⁴⁴.

Objectives: With its Safeguard Policies (SGPs) and, in the future, the new Environmental and Social Framework (ESF), the World Bank defines environmental and social standards for its worldwide projects, including the related due diligence requirements for all involved partners. The aim of this framework is to achieve sustainable project results and to avoid negative setbacks by unintended side effects⁹⁴⁵.

Territorial scope: The Safeguard Policies (SGPs) and the Environmental and Social Framework (ESF) have a global scope. Due to the World Bank’s task of poverty alleviation, projects and programmes are focused on developing countries and emerging economies.

Type of steering tool: The Environmental and Social Framework (ESF) is a policy encompassing several steering tools:

- ▶ A vision statement for all World Bank activities;
- ▶ Environmental and Social Policies that specify the Bank’s requirements for investment project financing;
- ▶ Ten Environmental and Social Standards (ESS) that specify the borrower requirements

In total, the ESF is a package of minimum standards and the specification of processes and roles & responsibilities to insure that these minimum standards are adhered to and implemented in World Bank financed projects.

Due to its process orientation that involves various risk and impact assessments and the establishment of an Environmental and Social Commitment Plan (see section on content), the ESF and their Environmental and Social Standards are not applied in a uniform manner across all World Bank projects. Instead, implementation strongly depends on the identified risks and impacts, as well as the type of project and the national legislative framework conditions a project is subject to.

Links to extraction, processing and transport of resources

Resources covered: The Safeguard Policies (SGPs) and the Environmental and Social Framework (ESF) are applied to all World Bank projects, including mining. In addition, there are mining-specific EHS guidelines. Thus, all types of resources can be covered by SGPs and ESF presupposing the World Bank is involved in the financing of related projects. In the fiscal year 2016, World Bank lending for energy

⁹⁴⁴ World Bank (2016b).

⁹⁴⁵ Rüttinger et al. (2015b).

and mining projects was US\$ 45.9 billion, which is equivalent to 15.7% of the total World Bank lending in this year⁹⁴⁶.

Environmental and social impacts covered: The environmental and social standards of the ESF and the IFC Environmental and Social Performance Standards cover a wide range of environmental and social issues (see Table 29). According to a comparative analysis of sustainability schemes with relevance for mining, the IFC Standards are the most comprehensive coverage of mining relevant sustainability issues⁹⁴⁷.

Table 29: Contents of the World Bank ESF Standards and the IFC Performance Standards

Standards of the World Bank Environmental and Social Framework	IFC Environmental and Social Performance Standards
No. 1: Assessment and Management of Environmental and Social Risks and Impacts	No. 1: Assessment and Management of Environmental and Social Risks and Impacts
No. 2: Labour and Working Conditions	No. 2: Labour and Working Conditions
No. 3: Resource Efficiency and Pollution Prevention and Management	No. 3: Resource Efficiency and Pollution Prevention
No. 4: Community Health and Safety	No. 4: Community Health, Safety, and Security
No. 5: Land Acquisition, Restriction on Land Use and Involuntary Resettlement	No. 5: Land Acquisition and Involuntary Resettlement
No. 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	No. 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
No. 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	No. 7: Indigenous Peoples
No. 8: Cultural Heritage	No. 8: Cultural Heritage
No. 9: Financial Intermediaries	
No. 10: Stakeholder Engagement and Information Disclosure	

Steps of the value chain covered: The Safeguard Policies (SGPs) and the Environmental and Social Framework (ESF) are applied to World Bank projects. Thus, the link and coverage to mineral value chains strongly depends on the scope and activities of financed projects. While mining projects will cover mining and processing stage, other projects might address refineries and transport infrastructure.

Content

The Environmental and Social Framework (ESF) is a policy encompassing several elements:

- ▶ A vision statement for all World Bank activities;
- ▶ Environmental and Social Policies that specify the Bank's requirements for investment project financing;
- ▶ Ten Environmental and Social Standards (ESS) that specify the borrower requirements.

⁹⁴⁶ A significant share of this amount encompasses energy generation projects so that this figure includes various projects with no direct link to the extractive industries; see World Bank (2016a).

⁹⁴⁷ See Kickler and Franken (2017): The study did not analyse the Environmental and Social Standards of the ESF. As there are large similarities with the IFC Environmental and Social Performance Standards it can be assumed that the results of the analysis apply for both Standard schemes.

Following this system, it is – amongst others – the World Bank’s task to “conduct environmental and social due diligence of all projects proposed for support. The purpose [...] is to assist the Bank in deciding whether to provide support for the proposed project and, if so, the way in which environmental and social risks and impacts will be addressed in the assessment, development and implementation of the project”⁹⁴⁸. In this process projects are classified into four risks categories: High Risk, Substantial Risk, Moderate Risk, Low Risk. Based on this classification and assessments, the Bank will agree an Environmental and Social Commitment Plan with the borrower that will be part of the legal agreement between the World Bank and the borrower⁹⁴⁹. The Environmental and Social Commitment Plan is largely based on the Environmental and Social Standards, as well as the outcomes of the initial risk assessments. It specifies the measures and action to be taken in order to comply with the Environmental and Social Standards over the project period.

The Environmental and Social Standards are a mixture of defined minimum standards for areas regulated by international conventions (e.g. the ILO core labour standards) and process orientated approaches. The latter approach is mostly used in field where defined target situations and thresholds strongly depend on the scale and type of project (e.g. impacts on biodiversity).

For health and safety related aspects (part of ESS No. 2), the ESF refers to the general and industry-specific Environmental, Health and Safety Guidelines that were developed by the World Bank Group as technical reference documents in 2007⁹⁵⁰.

Related initiatives

A significant number of other financing institutions such as the African Development Bank, the Asian Development Bank and KfW apply the World Bank procedures and standards in their projects. This uptake is supported by the equator principles, a risk management framework adopted by 90 financing institutions from 37 countries, which is widely based on the Safeguard Policies and the IFC Environmental and Social Performance Standards⁹⁵¹. While the current version of the equator principles were established in 2013, further revisions will surely take into account new processes and criteria of the new ESP. In 2016, the Asian Infrastructure Investment Bank which is going to play a large role in China’s infrastructure financing activities in and outside of China, developed a similar framework, which was designed to be compliant to the World Bank Group frameworks.

On the level of standards, the World Bank policies are further specified by technical reference documents, most importantly the general and industry-specific Environmental, Health and Safety Guidelines. Amongst others, there are also Environmental, Health and Safety Guidelines for Mining, laying out minimum standards related to management, performance indicators and management of environmental and health and safety related mining issues⁹⁵². Due to the wide recognition of World Bank procedures and standards, these guidelines are also referred to in the equator principles⁹⁵³.

Assessment

Coherence with other international treaties and policies: The World Bank Policies (SGPs, the IFC Performance Standards, and the new ESF) are not tied to any national and international law, but are part of the World Bank’s financing conditions. Their content is in line with major international standards such as the ILO conventions.

⁹⁴⁸ World Bank (2017).

⁹⁴⁹ World Bank (2017).

⁹⁵⁰ Rüttinger et al. (2015a); IFC (2007b).

⁹⁵¹ Rüttinger et al. (2015b).

⁹⁵² IFC (2007a).

⁹⁵³ Equator Principles (2013).

Political weight of the instrument: The World Bank Policies (SGPs, the IFC Performance Standards, and the new ESF) are key instruments of financial development co-operation globally. This is even enhanced by the uptake of related processes and standards in the equator principles so that around 70% of the international project finance debt in emerging markets is planned and managed by taking related standards into account.⁹⁵⁴

This also renders political weight to technical reference documents such as the Environmental, Health and Safety Guidelines for Mining. Although not legally binding on their own, they become binding where they are made part of the financing agreements between the World Bank and the borrowers. In any event, they are important minimum standards for all mining projects seeking financing from one of the institutions applying the equator principles and/or the World Bank standards.

Consideration of small and medium-scale companies: The level small and medium-scale companies are addressed strongly depends on the type of project to be financed. While projects of the World Bank and other development banks often focus on large scale infrastructure and investment projects, there are also projects specifically targeting SMEs, e.g. by financing support funds for certain sectors.

In case of mining projects, the ESF does foresee the assessment and management of environmental and social impacts and risks (Environmental and Social Standard No.1). Within this process, potential negative effects on small and medium-scale (mining) companies which have a high relevance for affected workers should be part of the analysis and – depending on the outcome – also of the subsequent environmental and social management plan.

Effectiveness: As the World Bank Policies (SGPs, the IFC Performance Standards, and the new ESF) have to be mandatory applied to all projects financed or co-financed by the World Bank Group, they have a considerable influence on many large scale developing projects. This weight is further enhanced by the uptake of important standards and processes in the equator principles.

Nevertheless, it is also reported that there have been substantial weaknesses in terms of implementation and monitoring of the Safeguard Policies and the IFC Performance Standards, including cases where projects were actually implemented in violation of minimum standards. It is also reported that grievances are often settled by compensatory payments rather than adjustments to the project design⁹⁵⁵.

Political opportunities and good practice examples:

Due to its outstanding importance for large scale development projects, the World Bank Policies, and in particular the new ESF, will continue to have major influence on the way such projects are planned and implemented. While countries such as Germany can use its influence and voting power in the World Bank Group in favour of reasonable and ambitious future reforms and amendments, it can also support the work to update and advance technical reference documents such as the general and industry-specific Environmental, Health and Safety Guidelines. Here, it can be considered to propose and develop new criteria or other technical reference documents to cover aspects such as upper limits for emissions and minimum requirements for site rehabilitation.

Furthermore, the ESF processes – and in particular the Environmental and Social Standards - can be used as references in trade agreements in order to install minimum requirements and safeguard processes for large investments, even if not financed by the World Bank Group or one of the Equator Principles Financial Institutions.

⁹⁵⁴ Equator Principles (2013).

⁹⁵⁵ Rüttinger et al. (2015b).

2.2.1.3 Towards Sustainable Mining (TSM)

Table 30: Overview on Sustainable Mining

Key aspects	Summary
Form and legal status	Not binding
Objectives	Increase environmental and social performance at facility level and improvement of mining industries' reputation
Parties	Member companies of mining associations (currently implemented in Canada and Finland)
Territorial scope	National / regional mining associations
Resources covered	Mined resources (minerals and non-minerals)
Steps of the value chain	Mining including beneficiation
Steering tool	Ranking of performance indicators based on companies' annual self-assessments and irregular third party assessment
Assessment	++ Interesting self-regulation approach of mining companies on top of legal regulations; implementation in different stages in Canada, Finland, Botswana and Argentina

Summary

"Towards sustainable Mining" (TSM) is a self-regulation approach for mining companies which was firstly launched by the Mining Association of Canada (MAC) in 2004 as reaction of Canadian's mining industry to an increasing public awareness on negative environmental and social impacts of mining. It aims to improve the mining industries' reputation along with increasing accountability, transparency and credibility through responsible mining practice. Incentives for companies are not only given by the publishing of the performance indicators but also by awards of excellence for outstanding performance in specific performance indicators.

In 2015, the Finnish Network for Sustainable Mining adopted the Canadian approach as consequence of a serious tailings accident in Finland. Recently, the Argentinean Chamber of Mining Entrepreneurs (CAEM – *Cámara Argentina de Empresarios Mineros*) and the Botswana Chamber of Mines (BCM) also announced the adoption of TSM by their members. The TSM is a dynamic standard with continuous framework developments and a growing number of member companies and covered facilities.

Both the Canadian and the Finnish TSM are not tied to any national or international law. All members of the Mining Association of Canada (MAC) and all Finnish TSM-applying companies commit to adhere to the agreed guiding principles and reporting and monitoring procedures for projects within their home countries. MAC members may also comply voluntarily to their activities outside of Canada.

The TSM builds on a set of basic documents which describe the requirements and monitoring indicators (Guiding Principles, Frameworks and Protocols) for the categories tailings management, biodiversity, energy use & GHG emissions, crisis management, mine closure, water management, aboriginal & community outreach and health & safety. Herby, TSM predominantly assesses the management schemes to reduce risks from operation and mine closure rather than real outcomes. The facility-specific ranking of several performance indicators per category is published. The foregoing assessment includes different stages with self-assessments and external audits. Multi-stakeholders from industry, governments and civil society are involved in the advisory panel and verification processes.

The political weight of the TSM approach is high as TSM – together with ICMM – succeeded in covering relevant amounts of global production and addressing a wide range of issues associated with mineral extraction. The fast adoption in Finland and the new adoptions from Botswana and Argentina show that it is also an attractive blueprint for mining associations from other nations with different cultural backgrounds.

Independent reviews of TSM's overall effectiveness are not available, thus, an overall assessment of the effectiveness is not possible. The published performance levels of Canadian companies increased steadily since the implementation. In contrast to this view, critics complain about short comings in the operational design and the underlying approach. However, a visit of the website of the Canadian NGO Mining Watch⁹⁵⁶ in August 2017 revealed that the most recent article mentioning TSM is dated to the year 2012. This may allow the preliminary conclusion that the TSM was at least not the subject of broader critical public debates in recent years.

From the historical development perspective, the TSM approach can be seen as a very important cultural change with a successful broad industrial implementation of new stakeholder participation processes and the promotion of sustainability concepts with the mineral industry. In the long term, these new ways of CSO-integration in mining development are supposed to be one key to increased environmental performance.

The TSM potential, similar to that of ICMM, lies in the self-regulation approach of mining companies and its integration of multi-stakeholder participation. The value-added of the approach is its application as supplement to legal regulations. In the best case, the combination of adequate legal regulation and TSM significantly lowers the risk of negative mining impacts. However, the approach may not be misused to prevent higher legal standards if they prove to be insufficiently.

History & context

The Mining Association of Canada (MAC) launched the “Towards Sustainable Mining” (TSM) strategy in 2004. A pioneering preceding initiative was the Canadian Whitehorse Mining Initiative (WMI), a comprehensive national roundtable seeking a consensus among stakeholders and parties concerned from mining, starting in 1993. The WMI was an important shift in the mining sector towards a public dialogue in Canada. The launch of the TSM in the early 2000s falls in a period of a broader global paradigm changes in large mining companies. Two years before the launch of the TSM, in 2002, the Mining, Minerals and Sustainable Development (MMSD) project – initiated by large mining companies under the umbrella of the Global Mining Initiative (GMI) and accompanied by over 150 individuals and organizations - published the report “Breaking new Ground” and other reports which addressed global responsible mining issues and called for significant changes. In 2001, the GMI along with MMSD project also initiated the foundation of the International Council of Metals and Mining (ICMM). The ICMM is also a mining industry initiative and currently brings together 23 of the world largest mining companies and many regional and commodity associations.⁹⁵⁷

TSM is a self-regulation approach and acts complementary to legal regulation by requiring additional management schemes. The Canadian environmental legislation is less strict than the European, and the NGO Mining Watch Canada claims deficits in Canada's legal requirements in the mining sector, particularly the weak thresholds for water emissions which lead to negative impacts on downstream effluents. The NGO generally criticizes CSR activities including TSM as mechanisms to prevent stricter legal regulation in Canada⁹⁵⁸.

⁹⁵⁶ Mining Watch Canada (2017).

⁹⁵⁷ Rüttinger et al. (2016); Patricia Fitzpatrick et al. (2011).

⁹⁵⁸ Hart (2012).

The Canadian approach was adopted by the Finnish Network for Sustainable Mining, which is a multi-stakeholder initiative including the Finnish Mining Association, in 2015. The launch was preceded by a serious tailings accident at the Finnish Talvivaara mine in October 2012 with uncontrolled emissions and severe environmental impacts. Finland responded to this accident with a multi-stakeholder roundtable process initiated by the Ministry of Employment and the Economy and the Ministry of the Environment. The roundtable resulted in the creation of the Finnish Network for Sustainable Mining which decided to adopt the Canadian TSM approach and complement and customize it according to Finland's specific needs, particularly to its stricter legislation in comparison to Canada. The Finnish implementation procedure was very fast. In 2016, which is four years after the tailings accident at the Talvivaara mine and two years after the foundation of the Finnish Network for Sustainable Mining, TSM is introduced at corporate level for a one-year revision period⁹⁵⁹.

Two further mining associations outside of Canada announced the adoption of TSM by their members: the Argentinean Chamber of Mining Entrepreneurs (CAEM – *Cámara Argentina de Empresarios Mineros*) in 2016 and the Botswana Chamber of Mines (BCM) in 2017. The main drivers for the TSM launch in Argentina are the strong local opposition to mining and the bad reputation of the mining industry resulting from frequent poor environmental and social performance in the past decades.

Besides the TSM dissemination outside of Canada, the TSM tool also goes through development processes within Canada. E.g., the Canadian TSM is currently revising the guide to the management of tailings facilities in order to learn from recent severe tailing dam bursts at the Mount Polley mine in Canada in 2014 and the Bento Rodrigues mine in Brazil in 2015. Another example is the current development of a new water management protocol for the Canadian TSM.

Since its foundation, the number of MAC member companies grew; in 2015, 22 members published performance indicators for 62 facilities⁹⁶⁰. After the official TSM adoption of the Québec Mining Association (QMA) in 2014 and the Mining Association of British Columbia (MABC) in 2011, additional Canadian mining companies will commit to the TSM approach under the umbrella of their regional mining associations. Currently, around 74 % of all Canadian mines are in various stages of TSM implementation [TSM 2017: Personal communication].

Form and legal status: Both the Canadian and the Finnish TSM are not tied to any national and international law. All members of the Mining Association of Canada (MAC) and all Finnish companies that have committed to the Finnish TSM (since 2016) Standard and are part of the Finnish Network for Sustainable Mining commit to adhere to the agreed guiding principles and reporting and monitoring procedures.

Objectives: The Canadian TSM aims to increase the credibility and the reputation of the mining sector and to raise mining companies' accountability and transparency. On the operational level, its main objective is to commit the MAC members to certain responsible mining management schemes which are laid down through various principles and frameworks. The Finnish TSM principally follows the same goals. The participation of stakeholders from the civil society is an important pillar of both the Canadian and the Finnish TSM.⁹⁶¹

Territorial scope: TSM has a national scope and is binding for the member companies' national activities. MAC members may apply TSM voluntarily in activities outside of Canada.

Type of steering tool: The Canadian TSM builds on a set of basic documents which describe the requirements and monitoring indicators (Guiding Principles, Frameworks and Protocols). The companies conduct annual self-assessments; MAC-trained external experts verify the self-assessments every three

⁹⁵⁹ Yrjö-Koskinen (2015).

⁹⁶⁰ Mining Association of Canada (2016b).

⁹⁶¹ Rüttinger et al. (2016); Kickler and Franken (2017).

years. The derived performance indicators are published at facility level. The detailed audit reports are not published.

Additionally, the Community of Interest Advisory Panel (COI) - with representatives of First Nations, aboriginal organizations, industry, industry associations, NGOs, local government, economic development corporations and academia - annually selects some member companies for a post-verification process with the target to assess and verify the companies' performance and self-assessment.

Incentives for companies are not only given by the publishing of the performance indicators but also by awards of excellence for outstanding performance in specific performance indicators.

Links to extraction, processing and transport of resources

Resources covered: The TSM refers to mining companies which extract mineral and non-mineral mining (e.g. coal) resources. The oil and gas industry is not covered by TSM.

Environmental and social impacts covered: The next table lists the environmental and social contents of the principles, frameworks and indicators of the Canadian and the Finnish TSM. A wide range of environmental challenges are addressed, though some protocols and performance indicators are still under development, e.g. the water management protocols in Canada.

Table 31: Contents of the Canadian and Finnish TSM

Environmental issues	Social and societal issues
Tailings Management	Aboriginal and Community Outreach
Biodiversity	Health and Safety
Energy use and GHG Emissions	
Crisis Management	
Mine closure	
Water Management	

Steps of the value chain covered: The TSM approach exclusively addresses mining including the linked beneficiation and tailings management.

Content

Both the Canadian and the Finnish TSM have a set of complementary documents which describe the guiding principles, the operative protocols, the detailed performance indicators and the audit mechanisms. Table 31 shows all addressed topics and illustrates that many environmental concerns are addressed. The TSM protocols define several performance indicators for each issue; the ranking varies from C (lowest performance level, only national legal requirements are met) up to the highest level AAA, which is entitled 'excellence and leadership'. By offering this broad range of performance levels and publishing each company's rating, TSM sets incentives for improvements. The annual Canadian TSM reports claim that this strategy works since companies' performance levels actually increased annually⁹⁶². New members are given a three year period to develop their strategies before carrying out their first self-assessment.

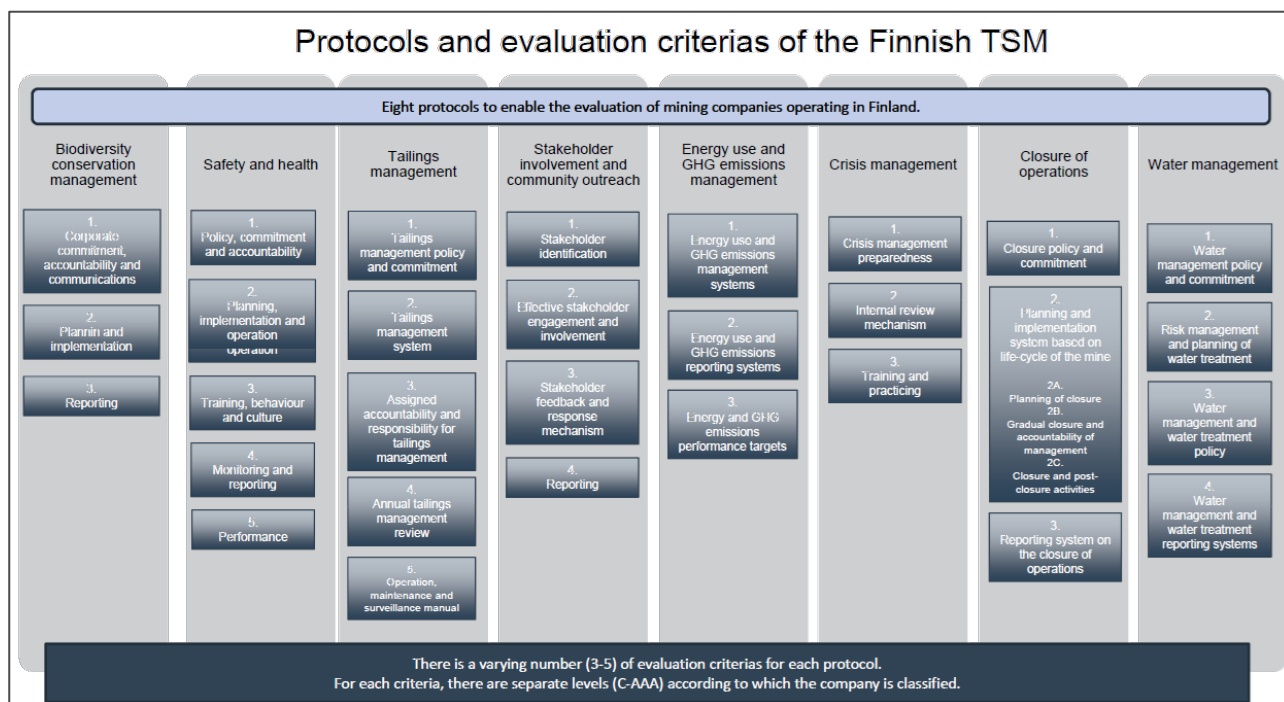
The performance indicators describe the level of a company's commitment to sustainable mining practice in their policies, their management systems, their accountability and responsibility schemes, their review procedures and their operation, maintenance and surveillance systems. The highest level AAA demands many external and independent audits on companies' management and operation schemes.

⁹⁶² Mining Association of Canada (2015b), (2016b).

The TSM approach predominantly assesses the adequate implementation of management schemes to reduce risks from operation and mine closure rather than evaluating real outcomes.

The next figure shows the protocols and evaluation criteria of the Finnish TSM. Due to the Finnish customization, it has a similar structure as the Canadian TSM, but differs in some elements and details.

Figure 5: Protocols and evaluation criteria of the Finnish TSM



Source: Yrjö-Koskinen (2015)

Related initiatives

The TSM-approach of the MAC shows similarities to the approach of the ICMM. Both, MAC and ICMM, have many majors (large mining companies) as members. ICMM includes 23 major mining companies and associated mining associations such as the Minerals Council of Australia, Euromines, the Chamber of Mines of South Africa and the Nickel Institute. The 23 full-member companies commit to the 10 ICMM principles and are supported by comprehensive guidelines for most environmental protection areas. Each member must conduct an annual third-party audit and publish its results. In 2014, ICMM member companies operated in 58 countries at 950 operational mining sites and had a share in global production of 54% for copper ore, 29% for iron ore and 30% for gold, 25% for nickel, 45% for platinum group metals, 15% for lead and 21% for zinc⁹⁶³. Several MAC members are also ICMM members.

MAC's TSM-initiative and ICMM's commitment for responsible mining are the only large cross-commodity initiatives from mineral mining company associations with principles and auditing schemes for mining companies. Besides this, some mining companies developed their individual sustainability schemes.

The Finnish TSM is linked to the broader Finnish Network for Sustainable Mining with members from authorities, non-mining industries, NGO's, and other stakeholders.

⁹⁶³ International Council on Mining & Metals (2014).

Assessment

Coherence with other international treaties and policies: The Canadian and Finnish TSM are coherent to national and international law. The TSM considers the existing law as baseline and aims to exceed this baseline by best-practice.

Political weight of the instrument: The political weight of the TSM self-regulation approach is high as TSM – together with ICMM – succeeded in covering relevant amounts of global production and addressing a wide range of responsible mining issues. Canada is a major mineral producing nation, and MAC claims to represent most of Canadian mining companies⁹⁶⁴. In 2012, they covered more than half of the Canadian mining production. Of the top global 40 companies, 13 are members of the Mining Association of Canada⁹⁶⁵.

The fast adoption in Finland makes TSM an interesting instrument for countries with already highly developed mining regulations. The new adoptions from Botswana and Argentina show that TSM might also be an attractive blueprint for mining associations from other nations with different cultural backgrounds.

Consideration of small and medium-scale companies: The TSM is also applicable to small and medium-scale mining companies as long they perform mechanized mining and no artisanal mining. However, the effort for reporting and monitoring is high and might prevent SME mining companies from committing to TSM. It is not applied to artisanal mining because this is no issue in Canada and Finland.

Effectiveness: The annual MAC publication show that the performance level of Canadian companies increased steadily with the years of implementation and the number of member companies and individual sites increased since the implementation in 2004. However, the current research did not encounter an independent review of TSM's overall effectiveness in Canada [own research]⁹⁶⁶. Thus, an overall assessment of the effectiveness is not possible and the following paragraphs can merely report different views on actual TSM effectiveness.

Critics complain an insufficient operationalization of some indicators⁹⁶⁷, deficits in conflict solving mechanisms, the lack of sanctions for non-compliance and the fact that the TSM requirements are primarily about developing management processes rather than about real outcomes.⁹⁶⁸ MAC self-critically evaluates deficits from some member companies with a performance which is still far behind the MAC expectations⁹⁶⁹. However, a visit of the website of the Canadian NGO Mining Watch⁹⁷⁰ in August 2017 revealed that the most current search result is dated to the year 2012. This may allow the preliminary conclusion that the TSM was at least not the subject of broader public debates in recent years.

Despite the weak points, the latest TSM adoptions in Finland, Argentina and Botswana plead for positive effects and the positive potential. From the historical development perspective, the TSM approach can be seen as very important cultural change with a successful broad industrial implementation of new stakeholder participation processes and the promotion of sustainability concepts with the mineral industry. In the long term, these new ways of CSO-integration in mining development should be one key to increased environmental performance.

⁹⁶⁴ Mining Association of Canada (2016a), (2015a).

⁹⁶⁵ Mining Association of Canada (2016a).

⁹⁶⁶ Rüttinger et al. (2016).

⁹⁶⁷ Indicators for biodiversity, energy use and greenhouse gas emissions.

⁹⁶⁸ Hart (2012); Rüttinger et al. (2016).

⁹⁶⁹ Rüttinger et al. (2016).

⁹⁷⁰ Mining Watch Canada (2017).

Political opportunities:

The TSM potential lies in the self-regulation approach of mining companies and its integration of multi-stakeholder participation. It creates a value-added on top of legal regulations. The limitations of seemingly high legal requirements were demonstrated by the 2012 tailings dam failure in Finland. The already high legal standards in Finland could not avoid this serious tailings accident. The expectation in Finland and similarly in other TSM applying countries is that the combination of legal regulations and TSM will significantly lower the risk of negative mining impacts. In countries with weak legal standards, the approach should not be misused for preventing adequate legal requirements.

The fast speed in implementing TSM in Finland makes the TSM an interesting blueprint for further national or regional mining associations. The upcoming implementation of TSM in Argentina and Botswana will show if this approach will be successful in the mining industry in developing and emerging countries.

The broad implementation in Canada and recently in Finland can provide valuable experiences in the implementation of responsible mining management schemes and the involvement of stakeholder processes. This knowledge might be helpful in the future development of global frameworks.

2.2.1.4 Fairmined / Fairtrade

Table 32: Overview on Fairmined and Fairtrade

Key aspects	Summary
Form and legal status	Not binding
Objectives	Increase environmental and social performance of small-scale miners, formalization of ASM, fair prices for producers
Parties	Artisanal and small-scale miners, traders, refiners
Territorial scope	Global
Resources covered	Precious metals (gold, silver, platinum)
Steps of the value chain	Whole supply chain
Steering tool	Third party audits; fulfilment of core requirements (entry principles) and development requirements (progressive principles)
Assessment	Important step in addressing problems in the ASM sector; still a niche production; Only suitable for already organized ASM miners

Summary

The Fairmined and Fairtrade standards, addressing precious metals from ASM along the whole supply chain, were jointly developed by two partners: One partner was the Alliance for Responsible Mining (ARM), a Latin American multi-stakeholder organisation with expertise in artisanal mining. The second partner is the Fairtrade Labelling Organizations International (FLO), with strong experience in the labelling and trading of food and other agricultural products. The FT/FM-standard was developed in a multi-stakeholder process. In 2013, ARM and FLO separated and now represent two independent standards that are very similar due to their joint development.

FT/FM address the artisanal and small-scale precious metal mining sector (ASM) and aim at applying responsible extraction procedures in terms of environmental sustainability, improved working conditions, fair wages, community development and fair prices for the produced metals. FT/FM support the formalisation of ASM miners as pre-condition for the successful implementation of responsible mining

schemes. ASM organisations that are certified according to the standards get paid 95 % of the current gold price at the London Bullion Market as well as a premium for every kilogram and an additional 'Ecological Premium' if no mercury and cyanide are used. The standards are not legally binding but binding for the certification and licensing procedure. Upstream and downstream actors can become part of the FT/FM supply-chain: On the production side, certified small-scale mining organizations extract the material, refiners and smelters can become authorized suppliers and sellers of finished products made of certified material can become licensees. Jewellery that is labelled by FT/FM has a transparent chain of custody. The standards certify ASM organizations in countries of low to medium income in Latin America, Caribbean, Africa, Asia and Oceania⁹⁷¹, however with a strong focus on Latin America. The scope for authorized suppliers and licensees is global.

Both standards differentiate between core requirements (entry principles) and development requirements (progressive principles). The core requirements must be fulfilled for certification, whereas the progressive principles have to be implemented stepwise. A certification body audits the ASM organizations annually.

FT/FM are explicitly stating that their standards are compliant to the relevant national legislations. If national legislation is setting higher standards than the ones stated in FT/FM, national legislation prevails. Where national law or international treaties require a due diligence process, the ASM-organizations have to prove that they are conflict free in accordance with the OECD Due Diligence Guidelines or governing laws⁹⁷².

Currently, FT/FM only covers roughly 0.00008 % of global annual gold production and 0.0007 % of ASM gold production. A significant expansion in the short- or mid-term is not probable. However, the political weight in creating awareness of ASM challenges by pioneering the first standard for ASM gold and by providing lessons learnt from its implementation is high. It is expected to deliver relevant contributions to the ongoing search for adequate ASM strategies.

History & context

The two initiatives Fairmined and Fairtrade are the first certification standards for responsible small-scale mining and thus pioneering approaches. They were initially developed jointly as one common standard by the Alliance for Responsible (ARM) mining and the Fairtrade Labelling Organization (FLO). These two organisations brought together FLO's expertise in the licensing and trade of products and ARM's expertise in small-scale mining.

FLO was established in 1997 in Bonn as an umbrella organisation that united a variety of Fairtrade-organisations⁹⁷³. In 2010, almost all sold FLO products were agricultural products and food with annual sales to end-users in Europe and USA of 4.4 billion €⁹⁷⁴.

ARM was established in 2004 in Colombia by a number of independent organizations of small-scale miners, stakeholders along the supply chain, civil society organisations (CSOs), international donors and ASM experts that were inspired by the Colombian Oro Verde initiative (addresses Green Gold in the deep rainforest of the Colombian Chocó). The organization aims at improving the small-scale mining sector to a socially and environmentally responsible activity and at the same time the quality of life of miners, their families and the corresponding communities should be enhanced⁹⁷⁵.

⁹⁷¹ Alliance for Responsible Mining (2014); Fairtrade Labelling Organizations International (2013).

⁹⁷² Fairtrade Labelling Organizations International (2013); Alliance for Responsible Mining (2014).

⁹⁷³ Rüttinger et al. (2015d).

⁹⁷⁴ Fairtrade Labelling Organizations International (2011).

⁹⁷⁵ Alliance for Responsible Mining (2017): History, available at: <http://www.responsiblemines.org/en/who-we-are/history/> (last accessed on 28.02.2019); Rüttinger et al. (2015d); Resolve (2010).

In 2006 ARM established its first draft of a framework for fair mined artisanal gold called 'Standard Zero'. The standard was developed by a technical committee and addressed a wide variety of environmental, social and health issues and topics such as governance and formalization of ASM. After a multi-stakeholder consultation process to improve the framework, first pilot⁹⁷⁶ tests were conducted in 2008 at 9 locations in Latin America involving a total of 1500 small-scale miners and their communities⁹⁷⁷.

Since ARM was experienced and specialized in the ASM sector but lacked knowledge and capacities in the licensing and trade of products produced under 'fair' standards they approached the Fairtrade Labelling Organizations International (FLO) to collaborate in a joint initiative⁹⁷⁸. The core principles of ARM's Standard Zero and FLO's Fairtrade were combined and formed the Fairtrade & Fairmined (FT/FM) standard. In March 2010, the newly established standard was introduced as an initiative that connects disempowered small-scale and artisanal miners with Western jewellers and focusses on the precious metals, particularly gold⁹⁷⁹. In 2011, the first mines were certified and produced their first kilogram of FT/FM gold in 2012. Since ARM is located in Colombia and the ASM sector in Latin America is more formalized and mechanized than in other parts of the world, the standard was first implemented at mining sites in Bolivia, Colombia and Peru.

Currently Fairmined and Fairtrade are implemented in several ASM communities in Colombia, Peru, Bolivia and Mongolia⁹⁸⁰.

In 2013, the two organizations went separate ways after disputes concerning the traceability of the fair mined gold along the supply chain. Since 2014, the certified members had to choose if they wanted to participate in both or only one of the standards⁹⁸¹. In 2017, ARM started to develop a modular ASM standard, the so-called "Market Entry Standard"⁹⁸².

Overview

Form and legal status: Both Fairmined and Fairtrade are not legally binding. Both upstream and downstream actors commit to the standard if they decide to become part of the FT/FM supply-chain: On the production side, certified small-scale mining organizations extract the material, refiners and smelters can become authorized suppliers and sellers of finished products made of certified material can become licensees⁹⁸³.

Objectives: The overall objective of both standards is the improvement of working and living conditions for artisanal and small-scale miners and their communities. The initiatives aim at the formalization of the ASM sector as pre-condition for improving the working conditions, strengthening the labor rights and enabling a responsible ASM sector. ASM organizations shall further be supported by a fairer market access and a premium price for their investments, and thus be enabled to improve the environmental, social and technical performance⁹⁸⁴.

Territorial scope: Mineral producing should be located in countries of low to medium income in Latin America and Caribbean, Africa, Asia and Oceania⁹⁸⁵. Currently small-scale mining organizations from

⁹⁷⁶ Resolve (2010).

⁹⁷⁷ Resolve (2010).

⁹⁷⁸ Bodenheimer (2014).

⁹⁷⁹ Deonandan and Dougherty (2016).

⁹⁸⁰ Kickler and Franken (2017).

⁹⁸¹ Rüttinger et al. (2015).

⁹⁸² <http://www.responsiblemines.org/en/our-work/standards-and-certification/> (last accessed on 28 February 2019).

⁹⁸³ Bundesanstalt für Geowissenschaften und Rohstoffe (2017b); Fairmined (2017d).

⁹⁸⁴ Alliance for Responsible Mining (2014); Fairtrade Labelling Organizations International (2013).

⁹⁸⁵ Alliance for Responsible Mining (2014); Fairtrade Labelling Organizations International (2013).

Bolivia, Peru, Colombia and Mongolia are certified⁹⁸⁶. The scope for authorized suppliers and licensees is global. Presently they are mainly located in Europe and North America⁹⁸⁷. Particularly the licensees are located at the end-consumer markets to reach the designated customers⁹⁸⁸.

Type of steering tool: Both standards have very similar frameworks which differentiate between core requirements (entry principles) and development requirements (progressive principles), while the former needs to be fulfilled for certification, the latter needs to improve over time. A certification body audits the ASM organizations annually⁹⁸⁹.

Links to extraction, processing and transport of resources

Resources covered: FT/FM focuses on the precious metals gold, silver and platinum⁹⁹⁰ produced by small scale miners. These precious metals are the main metals needed for the production of jewellery.

Environmental and social impacts covered: The table below shows a list of environmental criteria that need to be fulfilled by ASM miners to become certified by either Fairmined or Fairtrade⁹⁹¹. They differentiate between two different certification categories: The regular category includes basic core requirements and progressive principles and is particularly a starting point for new applicants. The Premium or Ecological category is much more ambitious and awards an advanced environmental performance.

Table 33: Environmental criteria of the Fairmined/Fairtrade certification schemes

Environmental Criteria	Fairmined / Fairtrade
Environmental impact study	Required
Treatment and management of chemicals, toxic and dangerous substances	Premium / Ecological category: - No use of mercury and cyanide Regular category: - Progressive reduction of mercury use - Safety rules for mercury and cyanide handling - Measures to reduce acid mine drainage - Tailings storage outside of water bodies - Proper disposal of waste
Rehabilitation after closure	Rehabilitation through topographic restoration within 2 years after closure
Contaminated water	No discharge of contaminated water

The next table lists socio-economic impacts that are addressed by the two standards.

⁹⁸⁶ Fairmined (2017b).

⁹⁸⁷ Fairmined (2017a).

⁹⁸⁸ Fairmined (2017c).

⁹⁸⁹ Fairtrade Labelling Organizations International (2013); Alliance for Responsible Mining (2014).

⁹⁹⁰ Rüttinger et al. (2015).

⁹⁹¹ Schüller et al. (2017a).

Table 34: Socio-economic criteria of the Fairmined/Fairtrade certification schemes

Social Impacts addressed	Criteria	ILO Reference
Child labour	worst forms of child labour are forbidden; including all forms of slavery, prostitution and pornography, illicit activities as well as work that is likely to harm the health, safety or morals of children	ILO Convention 182 ILO Convention 138
Forced labour	Forbidden; monitoring is encouraged	ILO Convention 29
Working conditions	fair wages and freedom of collective bargaining as well as working hours and Formalization of the ASM sector	
Workplace health & safety	information and education on safety and health must be accessible for employees, risks must be monitored and a mine rescue plan must be in place	ILO Convention 155 ILO Convention 176
Community health and safety	emergency response plans must be in place	
Local Development	community-related development plan necessary for premium standard	
FPIC (Free, Prior and Informed Consent)	establish bottom-up participation and consultation of the indigenous population prior to beginning development on ancestral land or using resources within the territory of the indigenous population	

Source: Schüler et al. (2017b)

Steps of the value chain covered: The FT/FM standards cover the whole supply chain, from mineral extraction by ASM, smelting and refining to trade and retail (mainly jewellery)⁹⁹².

Content

As already stated in the foregoing chapters, the FT/FM standards cover a wide range of social and environmental issues, including the elimination of child labour, gender equality, miners' rights, better working conditions, worker safety, formalization and better environmental practice⁹⁹³. In terms of environmental performance one of the key topics is the reduction and the long-term avoidance of the use of mercury and cyanide in the gold extraction process⁹⁹⁴.

⁹⁹² Bundesanstalt für Geowissenschaften und Rohstoffe (2017).

⁹⁹³ Bloomfield (2017).

⁹⁹⁴ Rüttinger et al. (2015d).

On top of these environmental and social issues, the standards address the economic benefit and easier market access for the certified ASM organizations. ASM miners sometimes only get 70% of the LBMA price for their gold. In contrast, the minimum price paid to FT/FM miners for their gold and silver corresponds to 95 % of the current gold price at the London Bullion Market Association (LBMA). For platinum, the FT/FM price corresponds to 95 % of the current price at the London Platinum and Palladium Market (LPPM). On top of this price guarantee of 95 % of current market prices, buyers pay an additional “premium” to the miners for use as development tool.

In addition to the price guarantees and the premium payment for enabling developments, the ASM organizations can further receive an Ecological Premium, if they avoid the use of mercury and cyanide⁹⁹⁵. Table 35 summarizes the payments offered by FT and FM.

However, this ambitious price scheme requires a sufficiently high demand from downstream companies which support this price policy⁹⁹⁶.

Table 35: Price schemes of Fairmined and Fairtrade

Price Type	Gold		Silver		Platinum	
	FT	FM	FT	FM	FT	FM
Minimum	95% LBMA	95% LBMA	95% LBMA	95% LBMA	95% LPPM	95% LPPM
Premium	2000 \$/kg	4000 \$/kg	10% LBMA	100 \$/kg	-	4000 \$/kg
Ecological Premium	15% LBMA	2000 \$/kg	15% LBMA	50 \$/kg	15% LPPM	2000 \$/kg
Maximum	110% LBMA + 2000 \$/kg	95% LBMA + 6000 \$/kg	120% LBMA	95% LBMA + 150 \$/kg	110% LPPM	95% LPPM + 6000 \$/kg

Source: Rüttinger et al. (2015d)

A major difference between the two initiatives is their handling of traceability of certified minerals along the supply chain and the allowance of the so-called ‘mass balancing’. ‘Mass balancing’ describes the blending of certified and traceable material with uncertified material at certain process steps, mostly at the smelters to be able to produce economically⁹⁹⁷. This is particularly relevant if the amount of certified material is too low to allow a full capacity utilization of the smelter. In this case, the downstream buyer of certified materials may only label the initially certified amount of minerals as certified and not the sum of jointly processed certified and uncertified material. Though customers further downstream receive a mix of certified and uncertified material, they still know exactly which amount originates from certified mining.

Fairtrade does allow mass balancing as long as the labelling only refers to an amount which is equal to the certified mined mineral. In contrast, Fairmined did not mention mass balancing at all in their initial standard. However the current annex also takes up the mass balancing approach and describes three options of production: One that is traceable along the whole supply chain and not mass-balanced, and two options which are mass balanced at some point of production. All three options are branded by Fairmined with different labels⁹⁹⁸.

In 2013, when FT/FM separated, FLO argued that certifying mass balanced material meant a break with the objectives of ethical gold. Opposite to this, ARM had a more economic point of view on the topic and wanted to be able to deliver larger volumes of their product. Following the disagreement

⁹⁹⁵ Walz et al. (2016); Rüttinger et al. (2015).

⁹⁹⁶ Rüttinger et al. (2015).

⁹⁹⁷ Fairtrade Labelling Organizations International (2013); Rüttinger et al. (2015).

⁹⁹⁸ Rüttinger et al. (2015).

many license holders published an open letter stating that they do not want ‘mass-balancing’ but a traceable and empowering product for the ASM communities. This petition did not succeed in preventing the split of the organizations⁹⁹⁹.

Related initiatives

The approach of paying a premium and addressing the whole supply chain is quite unique in the field of certification.

In the field of ASM support, a similar model of paying fair prices for artisanal miners’ gold has been introduced by the Federal Bank of the Middle East (FBME) through their subsidiary Africa Precious Metals (APM) in 2007. APM opened four ‘Fair Trade Gold Centres’ in Tanzania where small-scale miners can sell their gold to world market prices. The centres provide transparency by applying the highest standards in weighting, assaying and pricing the gold. Moreover, miners are provided free access to computers with internet and can receive microfinance loans for ASM related investments. Although the term ‘Fair Trade’ is used by APM, the initiative has no links to FT/FM¹⁰⁰⁰. Initially, APM was quite successful and bought 695 kg of ASM gold in 2008/09¹⁰⁰¹. But very quickly, informal buyers started to raise their prices at rates of 5-10% above world market price and ASM miners went back to selling to them. According to Childs (2014), the informal buyers were able to pay the high rates because they exported the gold in exchange for highly valued goods for import¹⁰⁰². Unlike FT/FM, the initiative does not include any environmental or social requirements and is limited to provide the service of buying ASM gold at global market prices.

The Responsible Jewellery Council (RJC) with its performance standard for diamonds, gold and platinum mining shows some similarities to FT/FM although it does not only address the ASM sector but also LSM. The RJC recognizes the FT/FM standards and therefore helps to use synergies of different certification schemes.

The Certified Trading Chains scheme (CTC) also shows similarities. It focuses on the 3TGs from ASM, has been piloted in Rwanda and is being implemented in the DRC with the objective of certifying responsible mining practices or „ethical production and trade of minerals.¹⁰⁰³

Assessment

Coherence with other international treaties and policies: Both Fairtrade and Fairmined are explicitly stating that their standards are building on the compliance with the relevant national legislations. If national legislation is setting higher standards than the ones stated in FT/FM, national legislation prevails. Where national law or international treaties require a due diligence process, the ASM-organizations have to proof that they are conflict free in accordance with the OECD Due Diligence Guidelines or governing laws¹⁰⁰⁴.

Political weight of the instrument: FT/FM precious metals are niche products. The market share of FT/FM certified gold is around 0.00008 % of global annual production and around 0.0007% of globally produced ASM gold¹⁰⁰⁵. A significant expansion in the short- or mid-term is not probable. This

⁹⁹⁹ Deonandan and Dougherty (2016).

¹⁰⁰⁰ Carstens et al. (2009); Childs (2014).

¹⁰⁰¹ Carstens et al. (2009).

¹⁰⁰² Childs (2014).

¹⁰⁰³ Bundesanstalt für Geowissenschaften und Rohstoffe (2017a).

¹⁰⁰⁴ Fairtrade Labelling Organizations International (2013); Alliance for Responsible Mining (2014).

¹⁰⁰⁵ According to ARM, 197 kg of certified gold was sold to the market in 2016 (Alliance for Responsible Mining, *Our Impact*, available at: <http://www.fairmined.org/our-impact/> (last accessed on 28.02.2019)). In 2013/14 Fairtrade sold 60 kg of

means that the political weight - measured in terms of covered volumes - is very low. However, the political weight is high with respect to the ongoing policy debate on ASM development. FM/FT supported the creation of awareness of ASM challenges by pioneering the first standard for ASM gold with the consideration of improvements in environmental and socio-economic terms and the required formalization procedure. Another valuable pool of experiences results from the lessons learnt from the implementation. These issues are expected to deliver relevant contributions to the debate on adequate ASM strategies, even if the complex challenges of the ASM sector require much broader approaches which have to be embedded in regional and national development efforts and the creation of alternative job opportunities.

Consideration of small and medium-scale companies: The initiatives specifically address artisanal and small-scale miners and their communities. Medium and large-scale mining companies are intentionally excluded.

Effectiveness: Positive effects since the implementation of the standards have been monitored. Particularly the livelihoods of directly affected miners and their communities have been improved. Also mercury emissions and deforestation have been diminished¹⁰⁰⁶.

As calculated above, the ASM organizations certified according to the FT/FM standards currently contribute just a very minor share of global production. Therefore, it is of high relevance to assess the potential for expanding the number of mines and the produced volumes. This potential highly depends on the demand. Currently, the demand seems to be a limiting factor for the growth of the initiatives. According to FM, the ASM companies produced 500 kg of gold in 2016, but only sold 197 kg¹⁰⁰⁷. Accordingly, it seems that the current supply is larger than the demand. Thus, the acquisition of more downstream customers is a key issue for the long-term operation and expansion.

Transferring experiences from the Latin American FM/FT organizations to Sub-Saharan Africa with its many ASM sites is very challenging since the structures in the ASM sector in Sub-Saharan Africa are quite different. ASM miners in Africa mostly operate less organized than ASM-cooperatives in Latin America and often have no mining license. Since illegal or informal activities are not suitable for certification by Fairtrade or Fairmined¹⁰⁰⁸, many of the African small-scale miners are currently not able to become FM/FT certified. For application in Africa, FM/FT would have to adapt to regional mining conditions and develop schemes for enabling less-formalized ASM miners to join the certification scheme.

Political opportunities

Monetary incentives

The FT/FM approach of integrating monetary incentives in the ASM-sector is pioneering. The payment of higher prices for environmentally cleaner production is a highly relevant support tool for the ASM sector. It helps to lower the entry barriers for ASM miners, which face many obstacles to become certified. On their way to become certified miners, they have to cope with increased costs for technology, and training and the simultaneous lacking of financial means.

In contrast, responsible mining in the LSM sector is often competitive. A cost comparison of the metals copper, zinc and iron ore reveals that countries with high environmental standards can frequently

certified material (Fairtrade Labelling Organizations International (2015)). In 2016, a total of 3,100 tons of gold were produced globally from ASM and LSM. Seccatore et al. (2014) are estimating that artisanal miners extract 380 – 450 tons of gold annually (Seccatore et al. (2014)).

¹⁰⁰⁶ Rüttinger et al. (2015).

¹⁰⁰⁷ Alliance for Responsible Mining, *Our Impact*, available at: <http://www.fairmined.org/our-impact/> (last accessed on 28.02.2019).

¹⁰⁰⁸ Deonandan and Dougherty (2016).

compete on the global markets¹⁰⁰⁹. The reasons for this are high productivity, access to advanced technology and know-how as well as access to cheap energy and resources.

The differences of LSM and ASM concerning financial hurdles and market access need to be considered for all instruments. For all applied instruments, it should be evaluated if monetary incentives support the ASM sector efficiently.

Except for niche markets like gold for jewellery, there is currently no market for certified metals with higher prices or premiums. The manufacturing industry is not willing to pay higher prices for certified material with reference to the global competitiveness. Currently, smelters which buy certified commodities cannot pass on additional costs to their downstream customers. Furthermore, even the higher price segment for certified jewellery – where some end-users are willing to pay higher prices for responsibly mined and sourced metals – remains a niche market and faces difficulties to extend the market size, as the example of FT/FM shows.

Increasing net-benefit for the miners and the local population

From the perspective of mining countries, reduction of negative impacts, e.g. the reduction of hazardous substances' emissions, represents only one part of responsible and sustainable mining issues. Particularly for developing countries and emerging economies, the socio-economic development of communities in the mining regions and the achievement of the sustainable development goals have a high priority. FT's / FM's more holistic approach of formalizing the ASM-sector, creating cooperatives and the development of ASM communities supports this approach and goes beyond most voluntary initiatives. The current effectiveness of this FT/TM approach is however still very limited due to the small market shares and due to the current limits in extending end-users demand which is a pre-condition for increasing volumes. Instruments to increase the downstream companies' demand for certified precious metals, are required to make use of the opportunities which are provided by the FT/FM approach.

Efficient and fair market certification systems

FM offers three different tracking mechanisms for their certified materials. These mechanisms address the practical restrictions of a seamless chain of custody for small material flows. It is almost impossible or very expensive to process small certified amounts of gold separately from uncertified gold. Accordingly a blend of certified and uncertified material is almost inevitable in practice. This approach does not allow a physical traceability but only a documentary traceability. The same approach is adopted by ASI and is discussed in detail in the next section.

¹⁰⁰⁹ Webb (2016).

2.2.1.5 Aluminium Stewardship Initiative (ASI)

Table 36: Overview of the Aluminium Stewardship Initiative

Key aspects	Summary
Form and legal status	Legally not binding
Objectives	Establish environmentally and socially sustainable aluminium value chain
Parties	Aluminium Industry
Territorial scope	Global
Resources covered	Aluminium, Aluminium scrap
Steps of the value chain	Whole value chain
Steering tool	Combination of performance and management system assessment
Assessment	++

Summary

The ASI is a voluntary global initiative of stakeholders along the bauxite and aluminium supply chain from mining to end-of-life. Members are mining, processing and manufacturing companies and their associations from all continents as well as NGO's; a large number of the members originate from Europe. The main driver for its foundation was the aluminium industry's aim to improve the environmental and social performance of their production.

The ASI developed two complementary standards which will be implemented by the end of 2017: the ASI Performance Standard aims at the certification of individual production facilities, while the CoC standard is a certification scheme for "ASI material" which is produced from ASI-compatible production sites along the whole supply chain. It includes primary and secondary aluminium.

Aluminium is the second most produced metal in the world in terms of volume after iron. Given the high complexity of the industrial aluminium flows and the large production volumes, the challenge of developing a practical, transparent and widely accepted tool is very high. For this reason, the ASI chose the "mass balance" approach for the tracking of certified materials along the supply chain. This approach enables to calculate the share of certified material at each process step. The advantage of this method is that it does not require a physical tracking of certified material through all production stages and that it allows the cost-efficient joint processing of certified and uncertified material in one production units.

Environmental issues addressed by the standards include: greenhouse gas emissions, emissions effluents and waste, water and biodiversity. Social issues addressed include human rights, labour rights and occupational health and safety. For many of these issues, the standard refers to widely-accepted global frameworks. Although a wide range of issues are addressed there are risks that certain criteria could be greenwashed to some extent. Particularly greenhouse gas emissions could be avoided by using already established clean production streams, without setting an impulse for improvement where it would be necessary.

The ASI is a very promising approach, because it includes large players from all steps of the supply chain with a continuously growing number of members. Currently, the three largest bauxite producers are ASI members, and large end product manufacturers such as BMW, Audi or Nestlé Nespresso also joined the ASI. However, there is a certain risk that the scheme will primarily benefit prominent member companies that can use the system to consume certified aluminium, while other manufacturing industries will continue to consume 'average' aluminium. In a worst case scenario, such a system has

limited influence on mining itself, and will only lead to a reallocation and marketing of certified material.

History & context

The global Aluminium Stewardship Initiative (ASI) was developed by the bauxite and aluminium industry with the aim to improve the sector's environmental and social performance¹⁰¹⁰. A large number of its members are Western mining, processing and manufacturing companies and their associations or NGO's, many of them are European. Unlike many other sustainability schemes, the ASI was mainly triggered by the industry itself and their own ambition to improve their performance in terms of environmental and social sustainability. ASI members include amongst many other companies the three largest bauxite producers and large end product manufacturers such as BMW, Audi or Nestlé Nespresso.

Its establishment was the result of work on the sustainability and material stewardship of aluminium for more than two decades by organisations such as the International Aluminium Institute (IAI), the European Aluminium Association (EAA) and the Aluminium Association (AA)¹⁰¹¹. In 2009, stakeholders from aluminium industry, industrial users, civil society research and policy organisations assessed challenges opportunities and future needs of the aluminium value chain in 2009 and published a report that evaluated the industries' main risks and opportunities in terms of environmental, social and governance sustainability. One of the conclusions of the report was the need for a multi-stakeholder organisation resulting in the establishment of the ASI¹⁰¹². In 2012, the International Union for Conservation of Nature (IUCN) has been selected to be the coordinator for the ASI standard-setting process for the two upcoming ASI standards.

The two standards address two different aspects of the aluminium supply chain. While the ASI Performance Standard aims at the certification of individual production facilities (such as mines, factories, smelters etc.), the CoC standard sets criteria for the upstream value chain in order to qualify for the ASI material label that shall assure a responsible production and sourcing.

From January to August 2015, a multi-stakeholder group developed the first version of the ASI Performance Standard, which defines environmental, social and governance criteria for production entities along the aluminium value chain. In parallel, ASI developed the Chain of Custody Standard.¹⁰¹³ Both standards underwent a consultation process in 2017. The revision and the formal launch of the revised version are scheduled at the end of 2017¹⁰¹⁴.

The consultation process involved the active participation of a large number of internal and external stakeholders often addressing highly technical issues with in depth analysis which reflects the high complexity of the covered supply chain and the required certification steps.

The involvement of many key actors from the whole aluminium value chain, including stakeholders from recycling is unique and could serve as a pioneer initiative for other industries.

Overview

Form and legal status: The ASI is a voluntary initiative. Member companies must have at least one entity which is certified by the ASI Performance Standard. If they want to claim to process and trade "ASI materials", they have to undergo the audit procedure according to the Chain-of-Custody standard.¹⁰¹⁵

¹⁰¹⁰ Rüttinger et al. (2015e).

¹⁰¹¹ Aluminium Stewardship Initiative (2017a).

¹⁰¹² Track Record (2010).

¹⁰¹³ Solomon (2016).

¹⁰¹⁴ Aluminium Stewardship Initiative (2017a).

¹⁰¹⁵ Aluminium Stewardship Initiative (2014).

Objectives: The ASI aims at defining and implementing a globally applicable standard for the whole aluminium value chain with strong focus on sustainability. The aluminium sector should continuously improve its environmental and social performance. The standards shall establish a credible assurance and certification system that enables companies to implement it on a large scale.

Territorial scope: The territorial scope is global with members from all continents. A large number of members originate from Europe.

Type of steering tool: The Aluminium Stewardship Initiative is based on a combination of performance and management system assessment. The ASI provides certification against two voluntary standards: The ASI Performance Standard and the ASI Chain of Custody Standard. Members need to be compliant with the Performance Standard for at least one entity. The Chain of Custody Standard is only mandatory if a member company wants to claim to process and trade “ASI materials”.

Links to extraction, processing and transport of resources

Resources covered: The scheme covers the whole aluminium value chain from cradle to grave. Accordingly bauxite mining, refining, smelting, fabrication and recycling are covered by the standard¹⁰¹⁶.

Environmental and social impacts covered: The Performance Standard introduces a wide variety of social and environmental issues and elaborates on them in the ASI guidance documents¹⁰¹⁷. In terms of environmental criteria, the standard refers to global frameworks such as the Greenhouse Gas Protocol, the Global Reporting Initiative (GRI) or the Business and Biodiversity Offset Programme as well as ICMM’s position statement to Mining and Protected Areas. Social criteria are referencing a number of ILO-Conventions, the IFC Performance Standard 5 and a variety of UN Conventions¹⁰¹⁸.

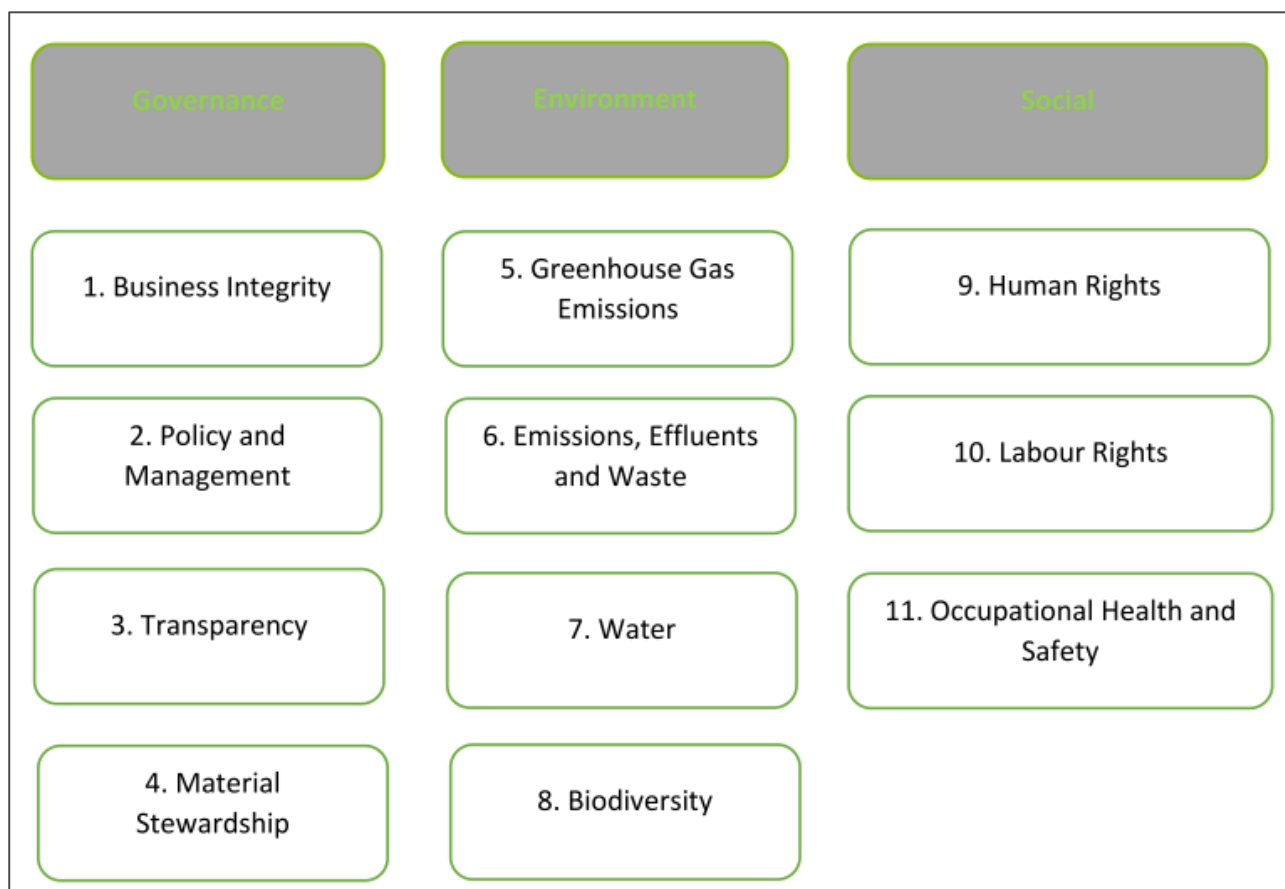
The standard is divided into the three large topics environment, social and governance issues. Environmental issues addressed include: greenhouse gas emissions, emissions effluents and waste, water and biodiversity. Social issues addressed include human rights, labour rights and occupational health and safety.

¹⁰¹⁶ Schöler et al. (2017a); Schöler et al. (2017b).

¹⁰¹⁷ Schöler et al. (2017b); Schöler et al. (2017a).

¹⁰¹⁸ Rüttinger et al. (2015e).

Figure 6: Topics and criteria addressed by the ASI Performance Standard



Source: Aluminium Stewardship Initiative (2017d)

Among all these topics, five key issues have been identified as critical by the ASI due to their severe impacts on sustainability in the aluminium value chain¹⁰¹⁹:

- ▶ Greenhouse gas emissions from smelting and refining
- ▶ Bauxite residues and spent potlining from smelting
- ▶ Biodiversity management in the bauxite mining process
- ▶ Indigenous rights
- ▶ Material stewardship

Since the high **greenhouse gas emissions** are one pressing issue in the aluminium supply chain, ASI seeks to contribute to the global efforts of climate protection. The ASI standard requires GHG emissions to be below 8 tons CO₂-equivalents per metric ton of aluminium produced. The current global average emissions per ton of produced aluminium is 12 tons of CO₂-equivalents¹⁰²⁰.

One particular focus of the ASI is **recycling**. Aluminium does not lose any quality properties during the recycling process and uses only 5% of the energy required to produce primary aluminium. ASI supports requirements for downstream companies to design commercial and consumer goods under the consideration of future recyclability¹⁰²¹.

¹⁰¹⁹ Aluminium Stewardship Initiative (2017c).

¹⁰²⁰ Aluminium Stewardship Initiative (2016a).

¹⁰²¹ Aluminium Stewardship Initiative (2016a).

Steps of the value chain covered: The standard covers the whole aluminium primary and secondary supply chain from mining to end-of-life and involved processes¹⁰²².

Content

Principally, the ASI allows the certification of companies engaged in production and transformation (companies and organizations involved in the extraction of bauxite or companies that refine, smelt, re-melt, semi-fabricate or convert aluminium) and industrial users¹⁰²³.

Figure 7: Priority criteria for different steps of the value chain



Source: Aluminium Stewardship Initiative (2015)

The environmental and social criteria are already discussed in the foregoing chapters and summarized the figure above.

The Chain of Custody standard is the result of the great challenge to design a practical certification scheme, which is able to keep track of the complex industrial primary and secondary aluminium flows. Contrary to the less complex value chain in the gold sector (from mining to jewellery), the aluminium industry comprise a much larger number of actors and processes. For this reason, the ASI Chain of Custody standard introduces its mass-balance model that can be applied at company or facility level¹⁰²⁴. This model includes a material accounting system that tracks the input quantities of CoC and non-CoC certified material by weight. If this material accounting takes place, both certified and uncertified material can be handled in the same production unit and no different plants for CoC and non-CoC certified materials are needed. For the material leaving the production unit, the output of CoC-certified material is tracked in terms of weight.

This approach towards mass balance accounting validates that the production input of CoC Material are equal to the output of CoC material¹⁰²⁵. The ASI argues that blending of certified and uncertified

¹⁰²² Aluminium Stewardship Initiative (2014); Mori Junior et al. (2017); Rüttinger et al. (2015e); Schöler et al. (2017a); Schöler et al. (2017b).

¹⁰²³ Aluminium Stewardship Initiative (2017b).

¹⁰²⁴ Aluminium Stewardship Initiative (2015).

¹⁰²⁵ Williams (2014).

material is less costly than a physical separation. Also the physical properties of the material are the same, unlike e.g. organic agricultural products.

The Mass Balance approach is described in-depth in the standard. It regulates a lot of particular issues, e.g. the consideration of secondary aluminium. At a certain point of the value chain, the standard allows a simplification within the mass balance approach in order to be cost-effective and stimulating the recognition of upstream efforts.¹⁰²⁶

Related initiatives

The Aluminium Stewardship Initiative, which addresses the whole supply chain including recycling, differs from most other certification standards. It provides one common framework for any entity along the supply chain. There are no other certification schemes which address the complex supply chain of bulk minerals from mining up to the end-product. Until now, the Responsible Steel Initiative did not publish a comparable framework. The copper industry also did not yet develop a common framework.

Assessment

Coherence with other international treaties and policies: The member companies must comply with applicable law¹⁰²⁷.

Political weight of the instrument: ASI includes a wide variety of stakeholders in the supply chain. In particular the upstream bauxite miners are very well represented since the three largest producers in terms of production are involved in the initiative¹⁰²⁸. This could be a strong signal for other primary producers if these market leaders succeed in keeping their leading position while simultaneously apply stricter standards. On the side of the end product manufacturers, the initiative is also supported by large companies such as BMW, Audi, Nescafé or Apple¹⁰²⁹. The involvement of famous and renowned companies, that most end-users know, can have a strong effect on the building of awareness among end-consumers.

In summary, the initiative has the potential to change the global standard in the aluminium supply chain. The political and economic weight of the involved companies, civil society and associations could be sufficiently high to establish a sustainable product cycle. Since the whole supply chain is already represented in the initiative, upstream miners can expect to be able to sell their metals, and downstream companies already know, where to source their material from. In contrast, initiatives, that only involve miners, might lack downstream buyers.

Currently (October 2017), the ASI has 56 member companies with a continuously growing number. In September 2017, two companies joined the initiative¹⁰³⁰.

Consideration of small and medium-scale companies: The ASI addresses so-called “small companies” in a separate section of their guidance documents. Thus, all companies along the aluminium value chain regardless of their size are suitable for certification. The ASI gives an indication on how to categorize the size of companies based on their annual turnover (compare Figure 8).

¹⁰²⁶ Aluminium Stewardship Initiative (2016c).

¹⁰²⁷ Aluminium Stewardship Initiative (2014).

¹⁰²⁸ Biswas (2016).

¹⁰²⁹ Aluminium Stewardship Initiative, *Current Members*, available at: <https://aluminium-stewardship.org/about-asi/current-members/> (last accessed on 28.02.2019).

¹⁰³⁰ Aluminium Stewardship Initiative, *Current Members*, available at: <https://aluminium-stewardship.org/about-asi/current-members/> (last accessed on 28.02.2019).

Figure 8: Indication of relative company size according to annual revenue

Large	Medium	Small	Micro
More than US\$1 billion	Between US\$100 million and US\$1 billion	Between US\$10 million and US\$100 million	Less than US\$10 million

Source: Aluminium Stewardship Initiative (2017c)

Effectiveness: Currently it is not possible to evaluate the effectiveness of the initiative, since it is in the pilot phase. The ASI has announced to formally undertake a review of the Performance and the CoC Standard by 2022¹⁰³¹.

Political opportunities:

Aluminium is the second most mined metal in the world in terms of volume after iron. ASI's approach aims at improving the whole aluminium supply chain and could become a landmark for other initiatives. The fact, that major stakeholders from every step of the supply-chain from upstream bauxite miners to downstream producers and recyclers are involved, improves the initiatives credibility and acceptance in the industry.

The initiative can also contribute to better standards in countries with weak governance structures. Guinea provided 7.5% of the globally mined Bauxite in 2016 and ranks among the 10 % of countries with the lowest Rule of Law according to the World Bank¹⁰³². The largest bauxite mining companies in the world Alcoa, Rio Tinto and Norsk Hydro are operating under joint ventures in the country and are members of the ASI¹⁰³³. The high weight of these companies' shares in the Guinean joint ventures could lead to a significant impact on the performance of the mines if the standards will be applied¹⁰³⁴.

Since ASI is a rather young initiative, it can take advantage of past shortcomings by other certification schemes and adapt promising approaches. E.g. requirements and criteria for monitoring and evaluation are already integrated and can be used for later impact reporting¹⁰³⁵.

2.2.1.6 Comparison and conclusions

The fact sheets summarize the most important historical and political context and the basic approaches and contents. They show that all initiatives have their roots in the 1990ies or in the first decade of the 21st century with an increasing awareness of the serious environmental and socio-economic problems in the extractive sector.

The five selected instruments show the high complexity and the wide range of different approaches and addressed stakeholders. The specific chapters on political opportunities highlight the different approaches which will be subject of further analysis in the following work packages in the second project year. The most relevant approaches and subjects of discussion are:

- The OECD Due Diligence Guidance as well as the World Bank Environmental and Social Framework are boundary cases between voluntary and mandatory approaches: While the OECD DD itself are voluntary, legal instruments on conflict minerals in USA and the EU refer to the Guidance. And

¹⁰³¹ Aluminium Stewardship Initiative (2017c), (2016b).

¹⁰³² World Bank (2017a).

¹⁰³³ Rio Tinto and Alcoa together own 46 % of the Compagnie des Bauxites de Guinée, (CBG), while the Government of Guinea owns 49%. The joint venture represents the fifth largest bauxite mining company in the world. (Biswas 2016).

¹⁰³⁴ Biswas (2016).

¹⁰³⁵ Kickler and Franken (2017).

although World Bank ESF is not rooted in national legislation, the process and several of its technical references are important minimum requirements for a wide range of investment project seeking financing from the World Bank or one of the Equator Principles Financial Institutions.

- ▶ On the other hand, it is also obvious that only very few of the large number of voluntary standards and initiatives that have formed around minerals and mining over the last years will develop a comparable semi-binding character. Here, it is important to identify and support initiatives that have a) a high potential positive impact on raw material markets and trade, and b) the potential and political support to develop worldwide recognition.
- ▶ Considering the aspects of the last bullet point above, the authors consider TSM as the most promising of the remaining voluntary schemes analysed in this study. The particular strengths are the self-regulation approach of mining companies and its integration of multi-stakeholder participation. It creates a value-added on top of legal regulations. The limitations of seemingly high legal requirements were demonstrated by the 2012 tailings dam failure in Finland. The already high legal standards in Finland could not avoid this serious tailings accident. The expectation in Finland and similarly in other TSM applying countries is that the combination of legal regulations and TSM will significantly lower the risk of negative mining impacts.
- ▶ The other two initiatives have both strengths and weaknesses: While ASI has strong support from industry stakeholders, it still remains unclear if the attempts can stimulate positive change beyond their member enterprises. There is a certain possibility that the scheme will primarily benefit prominent member companies that can use the system to consume certified aluminium, while other manufacturing industries will continue to consume 'average' aluminium. In a worst case scenario, such a system has limited influence on mining itself, and will only lead to a reallocation and marketing of certified material. On the other side, the current dynamic within ASI can also lead to a broader movement stimulating development for other mass metals, like copper or iron, towards a more responsible production.
- ▶ FairMined and FairTrade is currently the only initiative that includes financial premiums to the producers of sustainable minerals and metals, which is widely recognized as an important driver to motivate change within mining areas. While this unique aspect is one of the major strengths of this approach, it is also a significant hurdle to wider application: After all, most buyers on commodity markets expect world market prices (e.g. LME prices) and would probably be unwilling to pay financial premiums for sustainable raw materials. Therefore, the FairMined/FairTrade approach will most likely remain in a niche. On the other side, it is important to consider that many improvements in mining areas will require investments. The definition of criteria and standards from the side of consuming industries and countries will – without the willingness to accept higher raw material prices – not be able to mobilize enough investment to fully upgrade global mining industries.
- ▶ Taking into account the global nature of raw material production, trade and use, mineral consuming countries (e.g. Germany) often have quite limited legal influence over social and environmental conditions in production. In this context, the 5-step due diligence approach developed by OECD deserves some attention: While the approach was developed for human rights issues and conflict financing, the framework can as well be applied to other sustainability issues. The basic consideration of this approach also meets a widespread political consensus. While it is clear that consuming companies are not responsible for unsound behaviour conducted by other parties in their supply chain, they have the (ethical) obligation to analyse supply chain risks and to identify and implement feasible measures to reduce such risks.

2.2.2 General implementation analysis for non-binding instruments

The existing non-binding (“soft law”) instruments differ greatly in their focus and applicability along the value chain. While instruments that focus on primary extraction are considered here in principle, their scope along the value chain is very different: initiatives that have been launched together with the manufacturing industry, such as ASI, or the emerging responsible copper initiative, are already being developed in such a way that they cover the entire value chain of mining extraction, transport, export, smelting, and pre-product production. In contrast, ASM instruments in particular often focus on mining extraction and, if necessary, on the downstream trading chain up to smelting.

The following analysis starts with an overview on soft law instruments for base metals and shows deficits and areas not covered. Then, a similar analysis is done for soft law instruments for conflict minerals and cobalt. The final conclusions summarize the findings and add some general findings and observations.

2.2.2.1 Non-binding instruments for base metals

This section shows for important base metals at a glance which soft law material instruments with environmental criteria are already in use and which raw material flows and issues have not yet been addressed or only to a limited extent.

The next table summarizes the status-quo of the implementation of soft law instruments with environmental criteria for iron and non-ferrous base metals, excluding precious metals and conflict minerals.

Table 37: Status-quo of the implementation of soft law instruments with environmental criteria for iron and non-ferrous metals, excluding conflict minerals and cobalt

	Iron	Copper	Aluminium	Nickel, Lead, Zinc, Magnesium, Manganese, Lithium, PGM
Standards of the World Bank Group including IFC and also applied within the equator principles	Applied in projects the World Bank Group or other finance institutions which are committed to the Equator Principles (EP) Compliance is pre-condition for funding	<i>Same as iron</i>	<i>Same as iron</i>	<i>Same as iron</i>
ICMM: global market share in 2014	29 % for iron ore	54 % for copper ore	The largest and third largest bauxite producers are members of ICMM ¹⁰³⁶	Nickel 25% Lead 15 % Zinc 21 % PGM 45 %
TSM Canada (covers more than half of Canadian mining production in 2012)	Canada's share in global production: 2 % [TSM share not known]	Canada's share in global production: 4 % [TSM share not known]	Canada's share in global production: 5 % (refined aluminium, no primary production) ¹⁰³⁷ [TSM share not known]	Canada's share in global production: 11 % for Ni [TSM share not known]
Raw-material specific initiatives	Responsible Steel Stewardship: Standard development process started recently (very early stage) ¹⁰³⁸	Company engagement of Codelco/Chile and Aurubis/Germany ¹⁰³⁹	Aluminium Stewardship: Implementation started in 2018	Global Battery Alliance launched in September 2017, no framework yet
Stock exchanges' requirements	All listed companies are obliged by the stock exchanges to provide for custody obligations ¹⁰⁴⁰ . This also includes environmental and social aspects.	<i>Same as iron</i>	<i>Same as iron</i>	<i>Same as iron</i>

¹⁰³⁶ Biswas (2016).¹⁰³⁷ Reichl et al. (2017); U.S. Geological Survey (2018); British Geological Survey (2018).¹⁰³⁸ Responsible Steel (2018).¹⁰³⁹ Codelco announced to sell a premium copper from "sustainable production".¹⁰⁴⁰ Around 60% of global mining companies are listed at the most relevant stock exchange in the mining sector, the Toronto Stock Exchange (TSX) (2014).

	Iron	Copper	Aluminium	Nickel, Lead, Zinc, Magnesium, Manganese, Lithium, PGM
Responsible Mining Index	Ranking of 30 companies (company-wide behaviour) and 127 selected mining sites (snap shot) covering a significant portion of global production First assessments were published in 2018 Not “traffic light system” (good, acceptable, bad) and no negative incidents taken into account due to poor data availability ¹⁰⁴¹	<i>Same as iron</i>	<i>Same as iron</i>	<i>Same as iron</i>
Mining types addressed	Strong focus on LSM and industrial mining	<i>Same as iron</i>	<i>Same as iron</i>	<i>Same as iron</i>
Companies addressed	Focus on major and medium mining companies	In addition, refining is covered by World Bank Group / EP standards (when funding comes from related finance institutions)	Only the ASI for Aluminium covers principally the whole value chain	
Mining risks addressed	The World Bank Group, ICMM, TSM and ASI principally address operation, risk prevention and mine site rehabilitation	<i>Same as iron</i>	<i>Same as iron</i>	<i>Same as iron</i>
Addressing management schemes, applied technology or “real output”	ICMM and TSM focus on good management schemes to ensure sustainable mining practice. The World Bank Group also requires management schemes, but additionally recommends some technologies and also has requirements for the “real output” (e.g. limit values for effluent water)	<i>Same as iron</i>	<i>Same as iron</i>	<i>Same as iron</i>

¹⁰⁴¹ Responsible Mining Foundation (2018).

Deficits and areas not covered

The analysis shows that soft law instrument for base metals which include environmental criteria, are still in a very early development stage. Consequently, it is not surprising that many shortcomings and not-covered areas can currently be identified:

- ▶ Reporting by mining companies often refers to the entire company and is not site-specific. This applies, for example, to the Global Reporting Initiative (GRI) and ICMM. Therefore, site-specific problems are often not addressed. The Responsible Mining Index, which aims to establish a sustainability ranking of leading mining companies, evaluates some selected concrete locations, but for some of the companies it will also remain at the level of the overall company for reasons of feasibility. Other audit reports, such as those of IFC, financial institutions or stock exchanges, are not published.
- ▶ Domestic mining companies in developing and emerging countries are mostly not covered by the existing initiatives. They often do not use traditional 'Western' funding schemes and work with a high share of equity and risk capital. The same is true for small and medium-sized not stock-listed mining companies.
- ▶ There is no review on the overall performance of the mining companies which are compliant to the above-listed instruments. Interviewed experts assume that the performance of major and medium mining companies which stick to the listed principles and/or rely on traditional funding has improved significantly within the last decade. But there is no study which conducted an extensive evaluation on the ground.
- ▶ Environmental criteria are very complex; the site-specific environmental performance depends on the one hand on the general mine site risk from various geological and natural environment factors¹⁰⁴² and on the other hand on the application of best available/appropriate techniques. Governments' good governance performance (monitoring, control, sanction) strongly supports the consequent application of BAT. In addition, the environmental impacts also vary depending on the operating phase (construction, regular operation, industrial accidents, post-mining phase). Due to the high complexity and the varying site-specific challenges, the frameworks of IFC and also the multi-stakeholder framework of IRMA are complex catalogues with a mixture of requirements regarding management schemes, requirements for applied technologies, financial assurance for mine closure and the post-mining phase, and "real output". The ICMM guidelines, which are tools for the proper implementation of the core principles of responsible mining, comprise comprehensive documents and templates. Individual topics such as dam safety require extensive documents to describe BAT¹⁰⁴³.
Concluding this, there is no simple standard, and it will definitely not be possible to develop a simple standard in the future. This is – among other things – one reason, why environmental aspects are less advanced in their embedding in certification and due diligence schemes than social issues.
- ▶ The only environmental indicators that can easily be determined in the mining sector and in the downstream processing chain are the greenhouse gas potential and energy consumption. These indicators are mostly included in companies' reporting, including mitigation strategies such as increasing energy efficiency. GWP is a significant environmental impact for the refining of metals. In mining however, other environmental impacts such as the current and potential contamination of surface water and groundwater are much more relevant.
- ▶ Even the implementation of BAT and the compliance with good standards cannot reduce the risk of mining catastrophes to zero. However they should contribute to a significant risk reduction¹⁰⁴⁴.

¹⁰⁴² See risk classification, e.g. geological criteria (AMD risk, association with heavy metals, association with radioactive elements, ore grade, and deposit size) site specific criteria (risk for floods, landslides, storms, earthquakes, water stress, location within or close to protected areas) in Dehoust et al. (2017).

¹⁰⁴³ See Guidelines and Bulletins of the International Commission on Large Dams (ICOLD), available at: <http://www.icold-cigb.net/GB/publications/bulletins.asp>.

¹⁰⁴⁴ International Commission on Large Dams (2001).

- ▶ ASM is not addressed by the listed instruments. However, there is also ASM for iron in base metals and coal, e.g. in Mongolia (coal for local power plants and household energy), Colombia (coking coal even for exports), India (iron ore, coal¹⁰⁴⁵), China (formerly high share of ASM for iron ore 33%, copper 9%¹⁰⁴⁶). Generally, certification and due diligence schemes should not exclude ASM from the access to their customers. ASM globally provides millions of jobs and currently secures the livelihoods of millions of people. All due diligence schemes must take this into account and provide solutions for the integration of small-scale mining.
- ▶ Most Chinese mining companies are also not addressed by the above-listed frameworks. However, Chinese governments, industry and finance institution have developed similar standards which are still in an early implementation phase¹⁰⁴⁷.

2.2.2.2 Non-binding instruments for conflict minerals and cobalt

The next table gives an overview on the status-quo of the implementation of soft law instruments with environmental criteria for conflict minerals and cobalt.

¹⁰⁴⁵ Chakravorty (2001).

¹⁰⁴⁶ Lei and Gunson (2006) at 427–435.

¹⁰⁴⁷ Dolega and Schüler (2018).

Table 38: Status-quo of the implementation of soft law instruments with environmental criteria for conflict minerals and cobalt

	3T (tin, tantalum, tungsten)	Gold	Cobalt
Frame-works for industrial mining	Frameworks in table above for industrial mining may principally be applied ^{1048 1049}	LBMA ¹⁰⁵⁰ ICMC ¹⁰⁵¹	See table above; industrial mined cobalt is by-product from Ni- and Co-mining
Frame-works for ASM	Fairmined, Fairtrade, CTC et others	Fairmined, Fairtrade, CTC et others	
Recent raw-material specific initiatives			CIRAF by Cobalt Institute ¹⁰⁵² by and the RCI ^{1053 1054} set the focus in responsible sourcing on the fight against child labour; no detailed guiding documents yet published Global Battery Alliance; see table above
Market share of the frame-works	Fairmined, Fairtrade and CTC only supply niche markets; The prevalent due diligence system in DRC and neighbouring countries is iTSCI ¹⁰⁵⁵ ¹⁰⁵⁶ which does not include environmental criteria	LBMA: > 85 % ¹⁰⁵⁷ of global gold production; ASM schemes: niche markets	Will be high, since major cobalt production companies are RCI or Cobalt Institute members ¹⁰⁵⁸

The table clearly shows that in the area of conflict minerals and cobalt there are some relevant frameworks or initiatives with environmental criteria. However, just like the initiatives on base metals, most of them are at the very beginning or only cover niche markets. As a result, numerous deficits and un-addressed fields can also be identified in this area.

Deficits and areas not covered

- The table clearly shows that in the area of conflict minerals and cobalt there are a few initiatives with environmental relevance. But apart from 3TG initiatives in the ICGLR region and the initiatives covering niche markets (Fairmine, Fairtrade, CTC) there are no cross-commodity and cross-country initiatives.
- The table also clearly shows that on the one hand, there are standards for industrial mining and on the other hand, there are some separate standards for small-scale mining. For small-scale mining,

¹⁰⁴⁸ Though tin and tungsten are also „conflict minerals“, only around 1% of global production came from Rwanda (tungsten) and DRC (tin) in 2012 and 0,2 % of tin from Myanmar. The main supplier of tin and tungsten is China. In 2011, 25 % of global tantalum production came from Rwanda.

¹⁰⁴⁹ European Commission (2017).

¹⁰⁵⁰ London Stock Exchange Group (2018).

¹⁰⁵¹ International Cyanide Management Institute. International Cyanide Management Code (ICMC) For the Manufacture, Transport, and Use of Cyanide in the Production of Gold" (Cyanide Code), available at: <https://www.cyanidecode.org/>.

¹⁰⁵² Cobalt Institute (2017b).

¹⁰⁵³ CCCMC (2016).

¹⁰⁵⁴ Dolega and Schüler (2018).

¹⁰⁵⁵ The International Tin Supply Chain Initiative (iTSCI) focuses on 3T Minerals and monitors more than 1,200 ASM sites in the DRC and Rwanda. It does not include gold.

¹⁰⁵⁶ Rüttinger et al. (2015).

¹⁰⁵⁷ Data from 2012, see Manhart et al. (2015).

¹⁰⁵⁸ See production data on Cobalt Institute (2017a): Cobalt Production Statistics, available at: <https://www.cobaltinstitute.org/statistics.html>; Some Chinese producers, e.g. Huayou Cobalt, are RCI members.

the de-facto exclusion from standards aimed at industrial mining can have dramatic consequences if artisanal miners lose customers and markets and then have to give up workplaces or if small-scale miners are forced to market their raw materials to profit-oriented or even illegal traders. An example is the LBMA standard for gold, which de facto excludes ASM. Even well performing mines, which cannot meet the administrative requirements, are therefore pushed back into the group of non-performing producers.

- ▶ In response to the Dodd Franck Act, the European Conflict Minerals Regulation and the OECD, and certification initiatives such as iTSCi and CFSI have been established in the DRC and neighbouring countries. Apart from the CTC, these initiatives do not impose any environmental requirements. The OECD due diligence guidance does not take into account any environmental regulations or only if they are so serious that they affect basic human rights.
- ▶ In the field of conflict minerals and cobalt there are a number of parallel initiatives. Coordination is urgently needed to achieve good implementation along the supply chain. These many initiatives are still faced with major challenges in terms of implementation (establishment of appropriate structures, transparency, adequate financing, sufficient incentives for miners, corruption/fraud, etc.). In the future, environmental initiatives can learn a lot from current and future experiences of these socially oriented initiatives.
- ▶ In addition, the points listed under the section on base metals also apply to conflict minerals and cobalt.

2.2.2.3 Conclusions and lessons learnt

Most of the initiatives evaluate the mining companies according to existing company policies on the standard related aspects or on the reporting of the companies, while the actual operational performance and impacts are only rarely assessed. While it is one thing to compare companies' stated policies it is quite another to assess how far they are meeting such objectives in a fair, objective and informed way.

It has been noticed that the willingness to adopt a soft law instrument is high when the gap between the standards of the instrument and the company reality is reduced, resulting in limited efforts and costs to fully comply with the standards. This has been identified with CTC and other mining instruments, as well as in the non-mining sector, i.e. with the FSC instrument for timber. In the mining sector, this leads to the fact that the existing soft law instruments have so far only limited effect on the overall performance of the mining industry. They do not reach many of the operators with weak performance such as state companies in countries with weak governance, ASM, private miners and mines in China. In addition, there is a risk of disqualifying those companies voluntarily participating in a scheme, which do not fulfil all substandards to the highest score, disregarding the fact that the more problematic producers are not even willing to participate.

The 2018 evaluation of the Responsible Mining Index concludes that though the vast majority of companies have made policy commitments on topics such as business ethics, human rights, occupational health and safety and environmental impact management, still a few companies are yet to make commitments on such well-established international practice and few companies can demonstrate that they have systematically operationalised their commitments into effective actions.¹⁰⁵⁹

The 2018 evaluation of the Responsible Mining Index further concludes that the scale and persistence of severe adverse impacts greatly undermine progress made by companies towards more effective management of economic, environmental, social and governance issues. The most frequent adverse impacts found in the RMI analysis relate to worker fatalities and environmental pollution¹⁰⁶⁰.

¹⁰⁵⁹ Responsible Mining Foundation (2018).

¹⁰⁶⁰ Responsible Mining Foundation (2018).

The most advanced and commonly used standards for base metals are the World Bank Group Standards which are also applied by finance institutes which are committed to the EP. They could be a good starting point for a globally accepted good-practice standard, eventually complemented by elements of the more ambitious IRMA¹⁰⁶¹ standard which is currently under development by a multi-stakeholder initiative. The creation of another German or European standard is not a recommendable approach in view of the large number of standards and raw-material initiatives. Instead, an important internationally discussed topic is the coordination and integration of existing standards along the value chain (interoperability). China's integration is also an important point.

To date, no effective certification systems have been available for the environmentally friendly procurement of base metals. The Aluminium Stewardship Initiative will be the first system to launch its first certifications in 2018. However, the degree of success will only become apparent after a few years of implementation. Provided a promising implementation period, it might be conceivable to demand ASI aluminium or equivalent in the public procurement in the construction sector (windows or facade components made from aluminium) in the future. However, this presupposes that appropriate material can be provided by the market.

In all raw-material initiatives, whether it is about CSR, setting standards or environmentally friendly procurement, industrial mining and ASM must always be considered together. The introduction of new mandatory or voluntary systems principally carries the risk of unintended effects of shifting, especially if special producer groups (mainly ASM or small producers without administrative capacities) are de facto excluded due to internal system hurdles. Discrimination against artisanal small-scale mining can lead to drastic social problems and endanger the livelihoods of ASM miners.

All raw-material initiatives must aim to bring about changes on the ground. If the initiatives only serve green washing, the goal is missed. Similarly, if there are only market shifts but global production does not improve the average performance level. This might happen when some companies want to engage in responsible sourcing and therefore prefer to buy certified raw materials, while the non-certified raw materials continue to be produced unchanged and are now sold to purchasers who do not value responsible sourcing.

In this context, the approach of certified green electricity is interesting. The basic idea is that the premiums paid for such electricity will partly be used to finance the expansion of production capacities for more green electricity. A similar approach has not yet been adopted in the – often more complex – raw materials sector.

Another important point to rule out market disparities is to include China in international activities for responsible sourcing, since China requires almost half of global primary production for many raw materials.

Downstream companies play a key role in responsible sourcing. When developing guidelines for responsible sourcing, the following points should be taken into account:

There are no clear and easily understandable criteria such as "without child labour" or "conflict-free". The environmental dimension is extremely complex.

What effort is acceptable and reasonable for a company if it is to demonstrate sufficient efforts to achieve responsible sourcing with regard to environmental criteria? In view of the lack of superordinate certification systems, it is a first step towards sustainable mining if the base metals are extracted by member companies of ICMM or TSM, or if funding is provided in compliance with the EP's (or if it is ASI-certified aluminium in the future). Even though some reports of these initiatives may not cover all mine sites and even though the mine sites may still have negative environmental impacts (see case studies above), all these frameworks provide at least for third party audits. A useful political strategy

¹⁰⁶¹ Initiative for Responsible Mining Assurance. IRMA, available at: <http://www.responsiblemining.net/>.

would be to strengthen or acknowledge these initiatives and to enter into dialogue with them on further development and the link to responsible sourcing schemes.

For setting up further and more precise demands on "responsible sourcing of downstream companies" a guideline would have to be designed first. The OECD due diligence guidance applies only to conflict issues and serious human rights violations. It has no relation to environmental issues as long as they do not severely impact human rights; and no thematic expansion is planned at present. For pragmatic reasons, this new guideline would also have to provide for a positive list of frameworks, as is currently being drawn up for the EU Conflict Minerals Regulation. This list would have to contain frameworks, certification schemes or due diligence schemes, which can be regarded as provisionally acceptable evidence within the framework of a company's due diligence activities, given the current limited state of knowledge and transparency on the supply chain.

Large quantities of steel and base metals are imported from China as intermediate or final products¹⁰⁶². Political activities on responsible supply chains for these metals should therefore be tackled in dialogue with China.

The implementation of the initiatives and regulations on conflict minerals should not be overburdened with the inclusion of environmental aspects at the present time. It is recommended to critically monitor and learn from the implementation of the existing schemes. At a later stage, it might be discussed whether the due diligence activities should be supplemented by environmental aspects.

The application of best available / appropriate technology plays a key role in making mining more environmentally friendly. There are already many German activities in this area, especially on the part of GIZ and BGR. Continuation of these activities is important, and extending technical and scientific cooperation can also strengthen the further development and global application of BAT.

In addition to the environmental problems of the current mining industry, contaminated post-mining sites from past mining activities are a major issue; this also applies to raw materials imported by Europe in the past. The challenge is that the rehabilitation is frequently extremely expensive. In addition, often large areas are contaminated, which makes rehabilitation almost impossible. A still unresolved question is how a joint assumption of responsibility of current and past stakeholders along the supply chains – including governments – can look like.

¹⁰⁶² Schüler et al. (2017).

2.3 National and European law with extraterritorial effects

2.3.1 EU Timber Regulation

Table 39: EU Timber Regulation (20 October 2010)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Fight against illegal logging and related trade
Parties	EU Member States
Territorial scope	Internal European market; implications for country of harvest
Resources covered	Timber and timber products
Stage of the value chain	Whole supply chain, except for waste management
Steering tool	Prohibition for marketing of illegally harvested timber; due diligence system of operators
Assessment	++

Summary

The EU Timber Regulation is part of the EU approach to fight illegal logging and related trade. To this end, it prohibits operators from placing illegally harvested timber or products from such timber on the internal European market. Also, operators have to exercise due diligence when placing timber products on the market. In case they cannot obtain a licence under the “Forest Law Enforcement, Governance and Trade” (FLEGT) Regulation, they either have to establish their own due diligence system or can use the due diligence systems created by monitoring organisations that are recognised by the European Commission. Competent authorities in the Member States have to check the operators and the monitoring organisations.

As the Timber Regulation has only been applicable since 2013, it is too early to assess its effectiveness. There is no data available on whether the amount of illegally harvested timber on the EU market has decreased. However, initial experience indicates that the Timber Regulation has the potential to change the operators’ market behaviour. Also, it has created an incentive for the countries of harvest to develop licence systems. The approach of the Timber Regulation is likely to be accepted as legitimate by the WTO and by developing countries.

In addition to the following overview, the analysis of the EU Timber Regulation also includes a section on implementation.

Overview

Form and legal status: The EU Timber Regulation¹⁰⁶³ is an EU-Regulation, i.e. a binding legislative act which is directly applicable in all EU Member States. It came into force on 2 December 2010, its relevant provisions applied from 3 March 2013 (Article 21).

Objectives: The objective of the Timber Regulation is the fight against illegal logging and related trade (Recital 31). It aims to reduce the marketing of illegal timber into the EU, to improve the supply of legal timber and to increase the demand for timber sourced from responsibly managed forests.¹⁰⁶⁴ By

¹⁰⁶³ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market, OJ L 295/23 of 12.11.2010, pp. 23-34. See the analysis of this regulation at Ankersmit (2017) at 53 et seq.

¹⁰⁶⁴ See Commission (2016) SWD 33.

addressing the issue from the side of the demand for timber and timber products it is supposed to combat the problem of illegal logging and its consequences, such as deforestation and forest degradation, threats to biodiversity and to the livelihood of forest dependent communities. It is also expected to contribute to the Union's climate change mitigation efforts (Recital 3).

Territorial scope: The subject-matter of the Timber Regulation is the establishment of obligations of operators who place timber and timber products on the internal European market for the first time, as well as obligations of traders (Article 1). While the territorial scope is limited to timber (products) produced in or imported into the EU and hence the internal European market, the Regulation's due diligence obligations have effects beyond EU territory.

Type of steering tool: The Timber Regulation uses planning tools (obligation to develop or use an existing due diligence system – DDS), information tools (obligation to keep traceability information), and regulatory instruments (prohibition to place illegally harvested timber on the market, penalties for non-compliance). The Timber Regulation does not establish substantive standards for the production of timber (products); the marketability in the EU depends entirely on whether the timber and timber products meet the legal requirements of the country of export.¹⁰⁶⁵

The DDS includes three elements inherent to risk management – access to information, risk assessment and mitigation of the risk identified – which are defined in Article 6 of the Regulation, and further specified by an Implementing Regulation.¹⁰⁶⁶ The operational framework of procedures and measures, which constitute the due diligence system (Article 4 EUTR), however, is to be developed either by the importers of timber (**“operators”**) themselves, or by an officially recognized **private monitoring organization** (Article 8 EUTR). The Regulation thus provides that companies can rely on non-binding “frameworks” in order to fulfil its legal obligations. Although certain standards for the lawmakers are set by the lawmakers and the monitoring organizations are checked in regular intervals by the competent authorities, this rather **“process-based-approach”**¹⁰⁶⁷ **may provide for more flexibility, i.e. to deal with complex supply chains** (Article 6 b) EUTR) or varying market developments (Art. 6 para. 3 EUTR), than detailed legal rules and comprehensive implementation by officials.

The Regulation also integrates the FLEGT licensing scheme and the Convention on International Trade in Endangered Species of Wild Fauna and (CITES) licensing scheme by stipulating, that timber and timber products covered by valid FLEGT, as well as CITES licenses are presumed to comply with the provisions of the Regulation. Thus licensed timber products are supposed to have a strong market advantage over those that are not licensed. In addition, both major international forest certification systems, “Forest Stewardship Council” (FSC) and “The Programme for the Endorsement of Forest Certification” (PEFC), have made modifications to address the EUTR due diligence requirements.¹⁰⁶⁸

The EUTR can be considered to be a **process-based measure also in another respect**: It does not define substantive rules or standards, which need to be met by the country of origin to ensure the legality of the timber. Instead, the **legislation of the country where the timber was harvested**, including regulations as well as the implementation in that country of relevant international conventions to which that country is party, is the basis **for defining what constitutes illegal logging** (preamble 14; Article 2 (h) EUTR).¹⁰⁶⁹

¹⁰⁶⁵ Ankersmit (2017) at 54.

¹⁰⁶⁶ Commission Implementing Regulation (EU) No 607/2012 of 6 July 2012, see: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2012:177:FULL&from=DE>.

¹⁰⁶⁷ Ankersmit (2017).

¹⁰⁶⁸ Jonsson et al. (2018), at 7 et seq.

¹⁰⁶⁹ Cf. Ankersmit (2017), at 54.

Links to extraction, processing and transport of resources

Resources covered: The Timber Regulation covers timber and timber products as set out in the Annex, except for recycled products and printed papers. It does not cover abiotic resources.

Environmental and social impacts covered: The Timber Regulation covers the environmental and social impacts of illegal logging. Such environmental impacts include deforestation, forest degradation, threats to biodiversity, desertification, soil erosion etc. Social impacts include threats to the livelihood of local forest-dependent communities (Recital 3).

Steps of the value chain covered: The obligations of the Timber Regulation, in concerning the due diligence system and traceability, apply to the whole supply chain of timber and timber products, with the exception of waste management since recycled products are excluded.

Content

Relevant obligations for parties: The overall aim and instrument is a prohibition of the placing on the market of illegally harvested timber or timber products derived from such timber on the EU-market (Article 4 para. 1 EUTR). This is true for almost the whole value chain, i.e. timber and a range of timber products specified in the annex to the regulation, including solid wood products, flooring, plywood, pulp and paper (excluded are recycled products, printed paper or certain products made out of timber, such as seats, clothes hangers, tools and musical instruments).

There are three main actors which are addressed by the EUTR:

Operators (i.e. natural or legal person that places timber or timber products on the market) shall exercise due diligence by using a framework of procedures and measures, when placing timber or timber products on the market. The due diligence system shall be maintained and regularly evaluated except where the operator uses a due diligence system established by a monitoring organization, Article 4 para.2, 3. The DDS must contain three key components:

- ▶ access to information on operator's supply of timber or timber products placed on the market,
- ▶ a risk assessment, and
- ▶ a risk mitigation method.¹⁰⁷⁰

The workflow of the conformity assessment must include a literature review, statistical and field data collection, and further analysis of the requirements (Article 6 EUTR).¹⁰⁷¹

The due diligence procedures however need not to be applied to timber products covered by a FLEGT licence, or a CITES-permit, as they are considered to meet EUTR requirements (Article 3 EUTR).

Traders have the obligation to keep records of their suppliers and customers for at least 5 years (Article 5 EUTR).

Monitoring organisations are obliged to maintain and regularly evaluate the due diligence system and to verify its proper use. Monitoring organizations have to be recognized by the European Commission for this purpose and are subject to checks by the Competent Authorities (CA) (Article 8 EUTR).

In addition, the *Member States* are required to set up rules on penalties and to ensure their implementation (Article 19). Also, they have to designate one or more competent authorities (Article 7 (1)). *The competent authorities* carry out checks to verify if operators comply with their requirements (Article

¹⁰⁷⁰ Where the risk identified in the course of the risk assessment procedures is negligible, risk mitigation measures need not to be taken.

¹⁰⁷¹ Trishkin et al. (2015) at 1380.

10 (1)), keeps records of these checks (Article 11 (1), checks whether monitoring organisations operating within their jurisdiction comply with their requirements (Article 8 (4)), and cooperates and exchanges information with other competent authorities (Article 12 (1)).

Institutions, reviews and decision-making

Institutions: At the European level, the Timber Regulation does not establish new institutions in addition to those established by the Treaty on the Functioning of the European Union.¹⁰⁷² The Commission is responsible for implementation as assigned by the Timber Regulation. On the national level, each Member State has to designate one or more competent authorities responsible for the application of the Timber Regulation (Article 7 (1)). Monitoring organisations that grant operators to use their due diligence systems and verify its proper use are recognised by the European Commission after consulting the Member States concerned (Article 8 (3)).

Reporting: Member States are required to submit biennial reports on the application of the Timber Regulation to the Commission (Article 20 (1)). On their basis, the Commission submits biennial reports to the European Parliament and the Council (Article 20 (2)).

Evaluation and review: The Commission reviews the functioning and effectiveness of the Timber Regulation every six years based on reporting on and experience with the application (Article 20 (3)). If necessary, the review may be accompanied by appropriate legislative proposals.

Compliance procedures, remedies and dispute settlement procedures: First, general EU law and the regulation require Member States to implement the regulation vis-a-vis operators and traders, which includes effective, proportionate and dissuasive penalties. With regard to compliance by Member States with this obligation, the procedures for compliance and dispute settlement as established by the Treaty on the Functioning of the European Union and Regulation (EC) No 1367/2006¹⁰⁷³ apply. The Commission may take legal action – an infringement procedure according to Articles 258 to 260 TFEU – against any Member State that fails to implement the Timber Regulation. Also, non-governmental organisations may request an internal review of administrative acts and may institute proceedings before the Court of Justice according to Articles 10 to 12 of Regulation (EC) No 1367/2006.

Second, the procedures established by Member States to settle disputes apply. They have to give non-governmental organisations access to justice as far as required by the Aarhus Convention¹⁰⁷⁴ and to the extent determined by the European Court of Justice.¹⁰⁷⁵

Stakeholder and public involvement: The Timber Regulation provides for the involvement of stakeholders. *Third parties* can submit information about the compliance of operators and of monitoring organisations to the competent authority. In case of “substantiated concerns” the competent authority may carry out checks of the operator (Article 10 (2)) or the monitoring organisation (Article 8 (3)).

¹⁰⁷² See Articles 223 et seq. of the Treaty on the Functioning of the European Union, OJ C 326 of 26.10.2012, p. 47-390.

¹⁰⁷³ Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies, OJ L 264 of 25.9.2006, p. 13-19.

¹⁰⁷⁴ Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, Aarhus, 25 June 1998, in force 30 October 2001, 38 *International Legal Materials* (1999), 517.

¹⁰⁷⁵ For an overview of the rulings by the ECJ see European Commission, Commission Notice on Access to Justice in Environmental Matters, Communication C(2017) 2616 final, Brussels, 28.4.2017.

Implementation

Framework: The EU timber regulation (EUTR)¹⁰⁷⁶ is part of the implementation of the “Action Plan on Forest Law Enforcement, Governance and Trade” (“FLEGT AP”)¹⁰⁷⁷ and the main legal instrument in the European Union to control imports of illegally harvested timber. It prohibits the placing on the EU market of illegally harvested timber and certain products¹⁰⁷⁸ derived from such timber and notably requires EU operators who place timber products on the EU market to exercise due diligence. Internationally, the US Lacey Act¹⁰⁷⁹ from 2008 or the “Australian Illegal Logging Prohibition Regulation”¹⁰⁸⁰ from 2012 pursue comparable approaches.

An analysis of the EUTR is of interest in the context of this study for at least four reasons:

- ▶ First, it applies to both domestically produced as well as to imported timber and timber products, i.e. to the whole value chain, and therefore potentially has strong extraterritorial implications.
- ▶ Second, the EUTR prescribes the duty to have a due diligence system. Operators can develop their own system or use an operational due diligence system developed by a monitoring organization. Public as well as private certification schemes may play an important role in these due diligence systems. This combination of mandatory due diligence obligations with partly “privatized” due diligence systems and certificates renders the EUTR an interesting object of an impact assessment: It has been noted that a regulatory mechanisms of “regulated self-regulation”, which combine binding law with non-binding standards are particularly interesting with respect to mining activities. As an example of a mixed and “process-based” strategy, the EUTR may prove to provide some information for the potentials and pitfalls of a steering type which, in some general features, equates the approach of the Conflict Minerals Regulation.
- ▶ Third, the EUTR also follows a “mixed” or process-based approach in another respect: While the EUTR is the key instrument to address the problem of illegal logging in the world's forests from the demand side, the key element in the FLEGT AP at the supply side is to conclude VPA's (Voluntary Partnership Agreements). VPA's are bilateral agreements between the EU and third countries, negotiated upon a request from those countries, which provide for the establishment of a FLEGT licensing system meant to ensure the legality of imports of timber products from these countries into the EU. Timber and timber products covered by valid FLEGT, as well as CITES licenses are presumed to comply with the provisions of the Regulation. In addition, the VPA's include provisions which aim at reforms of the respective timber-producing partner state – while the EUTR refers to the legal regime of the country of origin as standard to evaluate the stipulated legality of imported timber. The regulatory instruments of the regulation thus gear into each other. This complementary element of the FLEGT AP is addressed with respect to the agreements with Indonesia and Malaysia.

¹⁰⁷⁶ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market, OJ L 295, 12.11.2010, p. 23–34.

¹⁰⁷⁷ See the homepage of FLEGT at: <http://www.flegt.org/> (last accessed on 28.02.2019).

¹⁰⁷⁸ In a recent public consultation within an Impact Assessment for the Revision of the Product Scope of the EU Timber Regulation (Regulation (EU) No 995/2010) several stakeholders propose to extend the scope to more or all products containing wood, see: press release by environmental daily from 10.07.2018: https://www.endseurope.com/article/53281/eu-timber-regulation-closing-an-environmental-loop-hole?utm_source=10/07/2018&utm_medium=email&utm_campaign=ENDS%20Europe%20editorial%20bulletin?utm_source=10/07/2018&utm_medium=email&utm_campaign=ENDS%20Europe%20editorial%20bulletin (last accessed on 28.02.2019).

¹⁰⁷⁹ See for the legal text the homepage of the U.S. Fish&Wildlife Service: <https://www.fws.gov/International/laws-treaties-agreements/us-conservation-laws/lacey-act.html> (last accessed on 28.02.2019).

¹⁰⁸⁰ See the Australian Illegal Logging Prohibition Regulation from 2012 which has been reformed 2018: <http://www.agriculture.gov.au/forestry/policies/illegal-logging>; and more detailed introduction at: <https://forestlegality.org/policy/australia-illegal-logging-prohibition-act> (last accessed on 28.02.2019).

- Fourth, in contrast to the Conflict Minerals Regulation, the EUTR explicitly addresses ecological aspects. The approach of the EUTR may therefore indicate possibilities to regulate criteria with respect to ecological due diligence obligations into extraterritorial legislation on mining.

The impact assessment reviews the function, effectiveness and efficiency of the complex interrelation and interplay of different regulations on diverse regulatory levels.

Enforcement mechanisms: Competent Authorities are tasked with performing checks on operators, traders and monitoring organizations to ensure that they fulfil their obligations under the regulation (Article 6 EUTR). The EUTR is implemented in each Member State via national legislation and enforced by national authorities. Article 19 EUTR states the Member States' obligations to lay down penalties for infringements of the EUTR, which must be effective, proportionate and dissuasive.

While the focus of assessments of the EUTR initially was on implementation of the regulation by the Member States, there is now increasing attention to enforcement; current analysis queries whether there is sufficient enforcement by national authorities.¹⁰⁸¹ There are notable differences between Member States concerning the penalty regime (administrative vs. criminal penalties) and the level of fines provided for under national law and the enforcement practices. Critical assessments on the one hand, review relatively low fines imposed by administrative authorities and, on the other hand, point to weaknesses of enforcement due to the chosen type of enforcement. Client Earth (2018) holds that CA's in general seem to prefer "soft approaches" such as advice letters and warnings, as well as injunctions and notices of remedial action as an enforcement option. Contrary to "hard enforcement" actions, the former have a mainly educative purpose, or have no direct punitive element or consequence in case of non-compliance with the EUTR. Soft enforcement practices are criticized for not being able to ensure that EUTR infringements are sanctioned by effective, proportionate and dissuasive penalties in line with the EUTR.¹⁰⁸² "Hard enforcement" actions, however, seem to take place mainly in just a few Member States, and only sporadically.

Voluntary Partnership Agreements: VPA's are bilateral agreements between the EU and third timber producing and exporting countries, negotiated upon a request from those countries.

The VPA documents are between 100 and 200 pages long, the text consists of 25 - 31 articles that are very similar across all VPAs. The specific details of the VPAs are contained in 9 to 12 annexes, which are an integral part of the agreement and legally binding. The annexes comprise a list of timber products included, legality definition and grid, a legality assurance system (LAS), the FLEGT licensing system, rules on the import and the reception of FLEGT-licensed timber in the EU, terms of reference for independent auditors, stipulations concerning information to be made public, criteria for assessment of the VPA and a schedule, and details on the Joint Implementation Committee.¹⁰⁸³

The regulatory mechanisms of the EUTR and the VPA's are interdependent in various respects: The VPAs provide for the establishments of a FLEGT licensing system with a view to ensuring the legality of imports of timber products from these countries into the EU. The EUTR provides for a presumption of legality for timber products covered by a FLEGT license. In addition, the VPAs contain accompanying measures such as capacity-building and legal reform. The latter may prove to form another important intersection with the regulatory mechanism of the EUTR, as the Regulation relies on the legislation of the country of harvest to define what constitutes illegal logging. As the legal situation in the country of harvest may be very complex or substantially insufficient, legal reforms stipulated by the VPA's could prove to be essential for an effective implementation of the EUTR.

¹⁰⁸¹ Client Earth (2018), at 1.

¹⁰⁸² Client Earth (2018), at 6, citing a recent decision by a Dutch court. Also see Greenpeace (2016).

¹⁰⁸³ FERN (2013), at 14.

Analysis of the EUTR's impact in selected countries

Germany

The EUTR is implemented in Germany by the Holzhandels-Sicherungs-Gesetz (HolzSiG) ¹⁰⁸⁴, which entered into force on 9 May 2013. An administrative regulation of 25 November 2013 ¹⁰⁸⁵ stipulates rules for controls of operators placing domestic timber on the market. ¹⁰⁸⁶

Penalties: Criminal penalties apply to operators placing illegal timber on the market if the offence committed is intentional, if it is intended to gain an important economic benefit for the perpetrator or others, or is a repeated offence. Penalties under the HolzSiG include detention (up to one year imprisonment) or fines (amount determined by judge), §§ 8, 7 para. 1, 2 HolzSiG. Criminal sanctions under the criminal code, for fraud or forgery for example, may also apply (detention up to five years or an undefined maximum penalty). According to § 7 HolzSiG administrative fines (up to € 50,000) may be applied by the CA for a breach of the prohibition or due diligence requirements and for not complying with certain types of injunctions. Administrative fines (up to € 20,000) also apply to non-compliant operators for smaller offences, e.g. for not cooperating during checks. An administrative fine (up to € 20,000) may also apply to traders for a breach of the traceability obligation.

The CA can seize the timber concerned, if it suspects a violation of the prohibition or due diligence requirements. If the operator cannot prove legality, timber can be ordered to be sent back, sold, with proceeds going to the public purse (if timber is illegal or documents are forged or contain false statements) or destroyed (e.g. CITES species), § 2 HolzSiG. ¹⁰⁸⁷

Critics hold that the implementation of the regulation is insufficient as the criminal penalties in the HolzSiG are linked to vague, supplementary conditions, which are not envisaged by the EUTR. For example criminal penalties are only feasible under the condition that offenses are committed in a self-interested way or repeated perseveringly, § 8 para. 1 HolzSiG. ¹⁰⁸⁸

Enforcement: The CA for the enforcement in Germany is the “Bundesanstalt für Landwirtschaft und Ernährung (BLE)”. ¹⁰⁸⁹ Operators importing timber from outside the EU have an obligation to register with the CA (§ 6 para 5 HolzSiG). The CA checks on operators, which are carried out regularly according to the “Administrative regulation of 25 November 2013 (Allgemeine Verwaltungsvorschrift zum HolzSiG)”. Checks have been carried out since 2013. A quarterly plan for checks has been established since 2014. Currently, 5-10% of timber importers are subject to controls. Checks consist of document reviews relating to approx. 10 shipments per operator and, in general, two wood samples should be taken. Follow-up checks are organised when serious problems have been detected during a first check. ¹⁰⁹⁰

Procedures to sanction non-compliant operators have been initiated. The CA cooperates with the Thünen Center to determine species and origin of timber. ¹⁰⁹¹ According to Client Earth (2016) between mid-2013 and January 2016, the BLE checked approximately 370 timber operators. Around 50 timber operators were found to be in breach, requiring follow-up audits. In 39 cases, warnings were issued. In two cases, the CA confiscated timber deliveries due to the strong suspicion that certificates of origin were forged. Thus, the German CA. seems to follow a predominantly “soft approach”.

¹⁰⁸⁴ See: <http://www.gesetze-im-internet.de/holzsig/> (last accessed on 28.02.2019).

¹⁰⁸⁵ Allgemeine Verwaltungsvorschrift zum HolzSiG.

¹⁰⁸⁶ See: https://www.ble.de/SharedDocs/Downloads/DE/Wald-Holz/Holzhandelssicherungsgesetz-Verwaltungsvorschrift.pdf?__blob=publicationFile&v=1 (last accessed on 28.02.2019).

¹⁰⁸⁷ Client Earth (2016).

¹⁰⁸⁸ See WWF (2013) and http://www.arboristik.de/baumschutz_5.html (last accessed on 28.02.2019).

¹⁰⁸⁹ For domestic timber, there is a different Competent Authority for each of the 16 regions (Bundesländer).

¹⁰⁹⁰ See Client Earth (2016).

¹⁰⁹¹ Client Earth (2016).

Effectiveness (Direct or indirect effects on illegal logging in countries of harvest): There is no definitive data available, which indicates that the EUTR and its complementary mechanisms have reduced illegal logging in source countries. Johnsson et al. conclude that it is possible that these source country producers could have redirected their illegal timber products to other countries without comparable policy measures.¹⁰⁹² However, there exists no objective evidence on the assumption that the EUTR has led to a shift between exporting countries to Germany and other Member states. Quantitative or value changes in the EU timber imports over the past ten years can largely be explained by the European economic recession of 2008-2009, and more general economic development in the EU and in the key timber supplying countries.¹⁰⁹³

It is noted, however, that the current analysis of the EUTR does not disclose information about the supply side, e.g., if there has been a switch within a country of harvest to suppliers that can provide evidence on legality of their products or if the legality requirements of importers have actually resulted in better compliance with legislation amongst their suppliers.¹⁰⁹⁴

Efficiency and Impacts on SME's: There are no detailed and generalizable country specific data on efficiency and impacts on SME's available. The impact assessment therefore relies on EU-wide assessments. For **timber importing and processing companies**, the DDS according to the EUTR requires access to and careful analysis of information on suppliers and their operations. According to a private sector survey conducted by the European Commission, it is a challenge for small companies to exercise due diligence and have it documented as well as convince the staff about the importance of ensuring legality of timber supplies prior to the actual purchase.

The survey's findings also suggest that the EUTR's bureaucracy may be problematic, particularly for enterprises with limited staff. It concludes, however, that the evidence is limited to make conclusions on the administrative consequences of the EUTR on SMEs.¹⁰⁹⁵

Companies supplying operators placing timber and timber products on the EU market are not directly addressed, but implicated by the EUTR through its due diligence obligation, which they are subject to. This is because supplying companies are in practice required to provide evidence on legality of their timber supplies for the EU market. It is asserted that exporters therefore have to invest considerably more than importers to ensure a reasonable level of legal compliance. The reason is that exporters must consider both domestic legislation (which is sometimes confused and contradictory) and the requirements of their customers who have to comply with the EUTR, the Lacey Act or the Australian Illegal Logging Bill. At the same time, small and medium suppliers identify benefits of being able to demonstrate compliance with the country of harvest.¹⁰⁹⁶

Overall, it seems, that even if the EUTR sets requirements for operators to exercise due diligence on their imported timber supplies, the actual burden of proof of legality is largely passed on to the exporting suppliers.¹⁰⁹⁷

Romania

Specific features of the Implementation: The EUTR is implemented by Decision n° 470 of 4 June 2014 which entered into force on 8 October 2014 (HG 470/2014), which was amended by Decision 787/2014 of 8 October 2014 and Government Emergency Order No. 51/14.09.2016 of 14 September 2016 (which introduced new penalties and was adopted further to an infringement procedure

¹⁰⁹² Johnson et al. (2015), at 25.

¹⁰⁹³ European Commission (2016), p. 47, 50.

¹⁰⁹⁴ European Commission (2016), p. 47, 50.

¹⁰⁹⁵ European Commission (2016), p. 72.

¹⁰⁹⁶ European Commission (2016), p. 73.

¹⁰⁹⁷ European Commission (2016), p. 73.

launched by the European Commission). Rules concerning methodology of checks were adopted in May 2015.¹⁰⁹⁸

The due diligence obligation does not apply to all timber products regulated by the EUTR (for example, timber products other than those corresponding to the first four codes of the EUTR Annex).¹⁰⁹⁹

Penalties: Administrative fines ranging from 15,000 to 20,000 lei (approx. € 3,335 to € 4,445) apply to operators placing illegal timber on the market. Timber can also be confiscated or banned from the market. Administrative fines apply to operators who do not implement and/or use a due diligence system (DDS) and range from 5,000 to 15,000 lei (approx. € 1,130 to € 3,335). Documents needed to trade can be suspended for up to 12 months in this case and a grace-period of 45 days applies to operators who have not used a due diligence system, when first checked.

Administrative fines also apply to operators who do not use a DDS correctly (including not maintaining and regularly evaluating a DDS) and range from 1,000 to 8,000 lei (approx. € 225 to € 1,780). Documents needed to trade can be suspended for up to 90 days in case of repeat offence.

Traders can be fined up to 8,000 lei (approx. € 1,780) for breaching the traceability obligation.

Monitoring organizations not complying with their obligations (Article 8 EUTR) can be fined up to 15,000 lei (approx. € 3,335).¹¹⁰⁰

Enforcement: The CA is the “Ministerul Mediului și Schimbărilor climatice (MMSC, Ministry of Environment and Forests)”. The Departamentul pentru Ape, Păduri și Piscicultură (Department for Water, Forests and Aquaculture) is responsible for products listed under the first four codes of the EUTR Annex, and the Garda Nationala de Mediu (National Environmental Guard) for the rest.¹¹⁰¹

Checks by the CA: According to Client Earth (2017), as at December 2015, the Romanian CA had issued 23 sanctions, including one for the amount of € 45,000. According to Client Earth (2017), no full-time staff had yet been assigned to the EUTR in January 2017.

Effectiveness (Direct or indirect effects on illegal logging in countries of harvest): For Romania, Gavrilut et al. assert that impacts of the formal and practical implementation of the EUTR are not satisfactory due to poor law enforcement, lack of enforcement capacity, the amount and enforcement of sanctions, as well as the risk of corruption, coupled with deeper drivers of illegal logging in the country.

However, they see positive effects of the EUTR on the supply side, even in the absence of FLEGT and CITES licensing schemes. Accordingly, changes in the FSC standard make it theoretically in line with EUTR requirements. It is found that FSC certification has to a large extent helped companies to prepare for and align with the EUTR’s requirements. In particular the FSC certification scheme can be used in the EUTR’s framework of risk assessment and risk mitigation procedures needed for a due diligence system (DDS).¹¹⁰² Still, it is assumed that there remain loopholes in the CoC-CW standard, which allow big companies sourcing from multiple small suppliers to include a certain quantity of uncontrolled wood in their supply chains.¹¹⁰³ Thus, there remains scepticism regarding certification’s capacity to ensure legality and compliance with EUTR requirements.

Efficiency and Impacts on SMEs: According to Gavrilut et al. (2016) the development and implementation of their own DDS, contradicts to the expectations and capacities of operators. The capacity to practically implement of EUTR in Romania requires resources in terms of finances, personnel, expertise and technical equipment, both for target groups (operators, traders) and for the CA.

¹⁰⁹⁸ Client Earth (2017).

¹⁰⁹⁹ Client Earth (2017).

¹¹⁰⁰ Client Earth (2017).

¹¹⁰¹ Client Earth (2017).

¹¹⁰² Gavrilut et al. (2016).

¹¹⁰³ Gavrilut et al. (2016); Thishkin et al. (2015).

Gavrilit et al. also find that the problems of enterprises with the establishment of operational DDS are associated with the absence of a national monitoring organization: domestic operators accordingly generally prefer to adopt an already existing DDS rather than developing one of their own, as they are concerned that the latter would increase costs.¹¹⁰⁴

Certified companies are supposed to be better prepared for such requirements. FSC certified companies in Romania did not perceive bureaucracy to pose any problems to EUTR implementation. A best practice guideline for national operators for the correct implementation of EUTR is also referred to as possibly having alleviated operators' difficulties in developing a DDS, at least with regard to lack of information and guidance.¹¹⁰⁵

Indonesia

Status and main features of the VPA: Indonesia was among the first Asian countries to initiate VPA negotiations with the EU, in March 2007, in order to control the problem of illegal logging. The VPA was signed in September 2013 and ratified in April 2014.¹¹⁰⁶ The Indonesian VPA was commended for its extensive civil society participation in the legality monitoring process.¹¹⁰⁷

Part of the Indonesia-EU VPA is a timber legality assurance system capable of verifying that timber and timber products produced and processed in Indonesia come from legal sources and are in full compliance with relevant Indonesian laws and regulations. This is verified by independent auditing and monitored by civil society. The timber legality assurance system described in the VPA is based on Indonesia's SVLK (Sistem Verifikasi Legalitas Kayu), which was adopted in 2009.¹¹⁰⁸

The FLEGT licensing scheme started operating on 15 November 2016 after an evaluation of the compliance of the Indonesian Timber Legality Assurance System with the criteria set out in the VPA.¹¹⁰⁹ EU imports of verified legal timber from Indonesia thus are provided with FLEGT licenses. Importers therefore no longer need to apply the EUTR due diligence system, because licensed timber and timber products shall be considered to have been legally harvested and are exempted from the EUTR (Art. 3 EUTR).¹¹¹⁰

Enforcement: The VPA stipulates to periodically evaluate whether the SVLK is functioning as described, by an independent third party (Article 15 sub (a), Annex VI). The evaluation has to take place at least once a year and shall include visits to forest harvesting areas, offices, forest checking stations and export points, as well as sampling and spot check methods to assess the work of the forest regulatory agencies in Indonesia. Evaluations are to be released to the public. In this manner, it shall be ensured that the country of harvest continues to meet the requirements of the VPA and keeps the right to issue FLEGT licenses.¹¹¹¹

Effectiveness: So far, there is no conclusive empirical data available that would show policy measures to have reduced illegal logging in source countries, although, according to Jonsson et al. (2015), they could have.

Effects of the VPA's interacting with the EUTR: According to Indonesian sources, they have issued 11.817 licenses for shipments to 27 EU member states, worth a total value of USD 409 million.¹¹¹²

¹¹⁰⁴ Gavrilit et al. (2016).

¹¹⁰⁵ Gavrilit et al. (2016).

¹¹⁰⁶ Jonsson et al. (2015) at 12.

¹¹⁰⁷ Jonsson et al. (2015) at 13.

¹¹⁰⁸ Annual Report EU-Indonesia 2015 – 2016, p. 7, 8.

¹¹⁰⁹ Douma (2017). Also see Annual Report EU-Indonesia 2015 – 2016, p. 6.

¹¹¹⁰ The EUTR exempts timber originating from partner countries listed in Annex I COUNCIL REGULATION (EC) No 2173/2005 of 20 December 2005; cf. COMMISSION DELEGATED REGULATION (EU) 2016/1387 of 9 June 2016.

¹¹¹¹ Douma (2017).

¹¹¹² Client Earth (2017) at 2.

In general, reviewers assert, that VPA negotiations have managed to enhance the participation of domestic civil society organizations in the decision making process, and important steps towards improving legal reforms have been taken. Institutional mechanisms for auditing, monitoring and reviewing national timber legality assurance regimes have also undergone significant development.¹¹¹³ For Indonesia it is held that, irrespective of detectable reductions of illegal logging or interactions with the EUTR, the VPA has a useful effect, because it has led to a simplification of the legal base: Around 900 laws which regulated timber production and trade accordingly have been boiled down into one legal instrument.¹¹¹⁴

The VPA is considered having been instrumental in incentivising reforms that have led Indonesia to move from a country where there was 80 per cent illegality in the timber trade, to a country where in theory all timber production is independently verified to comply with the law.¹¹¹⁵

Efficiency/ Impacts on SME's: Approximately half of Indonesia's exported timber products (20% of total production) is produced by small-scale operators. Critical assessments state that the VPA's 'uniform approach' driven by technical verification requirements tends to create disproportionate market barriers for small-holders and domestic producers. It is also warned, that by shortening the supply chain in the sense of reducing the number of agents, legality verification has the potential to negatively impact small-scale timber industries. This would further negatively impact small-scale operators.

However, the latest revisions of the SVLK describe a more simplified procedure for small-scale operators to place their timber under SVLK-controlled supply chains.

Malaysia

The Malaysia'-EU VPA negotiations began in 2007, but are the most protracted VPA negotiations to date, partially due to the complexity of the Malaysia's political situation. Negotiations have been paused since late 2014, while the EU awaits a signal from Malaysia that it is ready to restart the negotiations with the inclusion of the state of Sarawak. In Malaysia's political system, the states of Sarawak and Sabah have considerable autonomy, especially with respect to land and forestry, from the seat of the federal government in Peninsular Malaysia. This means, in effect, that the VPA negotiations need to bring together three separate timber legality assurance systems.¹¹¹⁶ However, Sarawak's agencies and especially key players in the timber industry have strong reservations about the VPA negotiations.¹¹¹⁷ Due to the complexity of the political situation, efforts have been made by the state of Sabah and Peninsular Malaysia to put their systems up for independent assessment and evaluation to conclude a VPA with the EU. Once this VPA would take effect, Sarawak's timber products would not be allowed on the European market and its entry into Sabah and Peninsular Malaysia would have to be strictly controlled and segregated.¹¹¹⁸ However, Sarawak has independently developed a Sarawak Timber Legality Verification System (STLVS) to meet market requirements outside of the VPA context.¹¹¹⁹

¹¹¹³ Jonsson et al. (2015) at 23.

¹¹¹⁴ See: <https://www.chathamhouse.org/expert/comment/forest-governance-how-indonesia-and-vietnam-are-responding-illegal-logging> (last accessed on 28.02.2019).

¹¹¹⁵ See: <https://www.chathamhouse.org/expert/comment/forest-governance-how-indonesia-and-vietnam-are-responding-illegal-logging> (last accessed on 28.02.2019).

¹¹¹⁶ See: <http://www.euflegt.efi.int/background-malaysia> (last accessed on 28.02.2019).

¹¹¹⁷ Cf. Sarawak Timber Association (2009).

¹¹¹⁸ See: <https://themalaysianreserve.com/2017/03/31/final-lap-in-malaysia-eu-vpa-talks-on-forest-trade/> (last accessed on 28.02.2019).

¹¹¹⁹ See: <http://www.euflegt.efi.int/background-malaysia> (last accessed on 28.02.2019).

Assessment

Coherence with other legislation and policies: The Timber Regulation is part of the 2003 EU Action Plan on Forest Law Enforcement Governance and Trade (FLEGT)¹¹²⁰ that consists of a number of policies for promoting sustainable timber harvesting around the world. Another regulation to implement this Action Plan is the FLEGT Regulation¹¹²¹ that establishes a licensing scheme for imports of timber. The Timber Regulation and the FLEGT Regulation mutually reinforce each other.¹¹²² While the FLEGT Regulation aims for voluntary partnership agreements between the European Union and countries of harvest, the Timber regulation sets the standard for timber and timber products that are not from a country that has a voluntary partnership agreement with the European Union and for operators that do not have a FLEGT licence.¹¹²³ The Action Plan can be seen in the context of the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)¹¹²⁴ that also lists tree species as endangered. The Convention has been implemented in the EU via the CITES Regulation¹¹²⁵ that aims to protect species of wild fauna and flora by regulating trade therein.

Political weight of the instrument: The Timber Regulation is part of the EU's approach to combat illegal logging and is important as an incentive for countries to enter into voluntary partnership agreements with the European Union under the FLEGT Regulation.¹¹²⁶ Although it imposes trade restrictions based on whether the product (timber) meets requirements in the country origin, it "appears likely to be accepted as legitimate not only by the WTO but also by developing countries."¹¹²⁷ According to many stakeholders the Timber Regulation adds significant value to the international efforts to halt deforestation and forest degradation, to conserve biodiversity and to address climate change.¹¹²⁸

Consideration of small and medium-scale companies: When providing technical and other assistance and guidance to operators, Member States are required to take the situation of small and medium-sized enterprises (SMEs) into account (Article 13 (1)). In practice, however, guidance and assistance given to SMEs has been limited.¹¹²⁹ Also, the Commission shall consider the administrative consequences for small and medium-size enterprises when reviewing the functioning and effectiveness of the Timber Regulation every six years (Article 20 (3)). In its first report, the European Commission came to the conclusion that there are "no clear indications that being a smaller business is a barrier to apply an effective DDS."¹¹³⁰

Effectiveness: So far, it cannot be definitely evaluated, if the EUTR and VPA have resulted in the reduction of imports of illegal timber and reduced illegal logging. It has been suggested that the Timber Regulation "will have a significant impact on the way international timber trade works."¹¹³¹ However, in

¹¹²⁰ European Commission, Communication from the Commission to the Council and the European Parliament, Forest Law Enforcement, Governance and Trade (FLEGT), Proposal for and EU Action Plan, COM (2003) 251 final, Brussels, 21.5.2003.

¹¹²¹ Council Regulation (EC) No 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber to the European Community, OJ L 347 of 30.12.2005, pp. 1-6.

¹¹²² Hansmann et al. (2014) at 186.

¹¹²³ Overdevest and Zeitlin (2015) at 150 et seq.

¹¹²⁴ Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 3 March 1973, in force 1 July 1975, 12 *International Legal Materials* (1973), 1055.

¹¹²⁵ Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of wild fauna and flora by regulating trade therein, OJ L 61 of 3.3.1997, pp. 1-69.

¹¹²⁶ Overdevest and Zeitlin (2015) at 151.

¹¹²⁷ Overdevest and Zeitlin (2015) at 151.

¹¹²⁸ European Commission (2016), p. 6.

¹¹²⁹ European Commission (2016), p. 5.

¹¹³⁰ European Commission (2016), p. 5.

¹¹³¹ Hansmann (2014) at 187.

its first report the European Commission could not yet verify such effect.¹¹³² It is still too early to comment on the effectiveness of the Timber Regulation.¹¹³³

Positive assessments thus point to secondary effects such as significant improvements in forest governance in partner countries or increased awareness of different stakeholder groups in producer and consumer countries of the illegal logging issue. Assessments also emphasize the implementation of similar legislation inspired by the EUTR in other countries and / or global sub-regions, which are supposed to limit the opportunities for market diversion of illegally logged timber.¹¹³⁴

The assessment also delivers various insights with respect to **“process-based”** or **“mixed” regulatory approaches**: The regulatory mechanisms of the EUTR, which can be considered a “process-based” regime of “mandatory self-regulation”, are functional, although the assessment points to specific shortcomings: The integration of mandatory due diligence obligations and “privatized” due diligence systems (DDS) and monitoring seems to be feasible. Problems for SME’s such as bureaucratic effort and costs can be sensibly mitigated. In this respect, the openness of the regulatory mechanism may be considered an advantage: Efforts can be lowered by applying the DDS of a monitoring organization or – in the absence of a monitoring organization – by resorting to existing certification schemes like FSC-Certification.

It is assumed, however, that there remain loopholes in the CoC-standard, which allow big companies to include a certain quantity of uncontrolled timber in their supply chains. As there remains scepticism regarding the capacity of third party evidence to ensure legality and compliance with EUTR requirements, the further development of mandatory specifications of the DDS seems to be crucial. The further development of a due diligence obligation of organizations which provide certification schemes is another conceivable way to cope with the issue of third party evidence.¹¹³⁵

Extraterritorial effects: The situation in producer countries is supposedly affected by the EUTR as supplying companies are in practice required to provide evidence on the legality of their supplies for the EU market. The main efforts with respect to the “demand side” instrument therefore seem to fall on the suppliers.

Enforcement: One pivotal finding of the analysis confirms that mechanisms of “regulated self-regulation” depend of effective implementation and enforcement mechanisms: according to first assessments of these mechanisms, major obstacles persist in EU Member States, especially in terms of prosecutions and fines.

Interplay between regulation on demand side and regulation on supply side: The integration of the legislation of the country of origin as benchmark for the legality of imported timber may be seen as an advantage as it may increase the acceptability of the instrument and takes into account the local context of mining. At the same time, it may be queried if local laws of producer countries are sufficient to achieve the objectives of the Regulation.

The integration of the complementary supply side instrument of VPA’s accounts for a certain substantiation of the criteria of the legality of harvested timber. As the example of Malaysia proves however, the feasibility of this complementary approach on the “supply side” hinges on the political situation in producer countries.

Political opportunities and good practice examples:

- Good practice: Incentive for the private sector to ensure illegally harvested timber is not marketed and for harvesting countries to establish licensing systems.

¹¹³² European Commission (2016b), p. 9.

¹¹³³ Saunders and Hein (2015) at 29.

¹¹³⁴ Cf. Jonsson et al. (2015), 25, 5; who cite regulation in Australia and Japan.

¹¹³⁵ Cf. Trishkin et al. (2015).

- ▶ The Timber Regulation does not establish substantive standards for production of timber (products); the marketability depends entirely on whether the timber and timber products meet the legal requirements of the country of export.
- ▶ It could be explored to what extent the regulatory approach and steering tools could serve as a model for implementing standards for natural resource extraction at the international level. This would have to take into account that the regulation does not actually determine when timber is harvested illegally, as it leaves this to the country of origin. In addition, the regulation is embedded in the EU's legal system, which is different from international law in important respects.

2.3.2 French law on the duty of vigilance of parent companies and ordering companies

Table 40: French corporate duty of vigilance law (27 March 2017)

Key aspects	Summary
Form and legal status	Binding, in force
Objectives	Establishes a vigilance duty of parent companies and ordering companies for their subsidiaries, subcontractors and suppliers in order to prevent serious harm to human rights or to the environment, obtain compensation for the victims of such harm
Parties	National legislation
Territorial scope	French territory and beyond
Resources covered	No specification, but mining implicitly targeted
Stage of the value chain	All stages
Steering tool	Planning, information, regulatory and procedural
Assessment	+++ First law of its sort worldwide, overall effective obligations backed by publicity requirements and remedies

Summary

The French Corporate Duty of Vigilance Law (hereinafter “French Law”) establishes a duty of vigilance of parent companies and ordering companies for their subsidiaries, subcontractors and suppliers in order to prevent serious harm to human rights or to the environment, and enables victims of such harm to obtain compensation for non-compliance. Although the French Law does not explicitly address natural resources, the extracting sector is targeted as one of the sectors particularly concerned. The French Law is the first binding legislation of this sort in the world. It is guided by the concept of human rights due diligence outlined in the non-binding UN Guiding Principles on Business and Human Rights, and goes beyond reporting obligations as proposed by the updated OECD Guidelines for Multi-national Enterprises and required the EU Non-Financial Reporting Directive. The effectiveness of the vigilance plan prescribed by the French Law is secured by its publicity and the powers conferred upon the courts. One obstacle for victims to obtain compensation for harm resulting of non-compliance is the burden of proof incumbent upon them.

Overview

Form and legal status: The French corporate duty of vigilance law (law on the duty of vigilance of parent companies and ordering companies, *LOI n° 2017-399 du 27 mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuse d'ordre*) was adopted on 27 March 2017 and came into force on 28 March 2017.¹¹³⁶

Objectives: According to explanatory memorandum (*exposé des motifs*) to the bill, the objectives of the law are to establish a duty of vigilance of parent companies and ordering companies for their subsidiaries, subcontractors and suppliers in order to prevent serious harm to human rights or to the environment, and to obtain compensation for the victims of such harm.¹¹³⁷

Territorial scope: The law applies to any company established in France which, over two consecutive years, has had:

- ▶ at least 5,000 employees in its head office and subsidiaries, and whose head office is based on French territory, or
- ▶ at least 10,000 employees in its head office and subsidiaries, and whose head office is based on French territory or abroad¹¹³⁸

Type of steering tool: The law uses planning tools (obligation to develop due diligence plan), information tools (obligation to publish due diligence plan and to include it in reporting), regulatory instruments (liability for non-compliance and compensation duty), and procedural tools (standing in court for any interested person).

Links to extraction, processing and transport of resources

Resources covered: The French Law does not directly address natural resources. Indirectly, however, it covers any use of resources that is relevant for the duty of vigilance because it could result in serious harm to human rights or to the environment. The explanatory memorandum mentions the extracting sector as one of the sectors particularly concerned, and refers to the former UN Special Representative for Human Rights and Transnational Enterprises John Ruggie, according to whom the extracting sector was responsible for 28% of human rights violations by companies worldwide.¹¹³⁹

Environmental and social impacts covered: The law covers serious violations of human rights and fundamental freedoms, the health and safety of people, and the environment, which may result from the activities of the companies.

Steps of the value chain covered: The French Law covers all steps of the value chain. In particular, it comprises activities of the parent company, of the companies and subsidiaries that the parent company controls directly or indirectly, and of subcontractors and suppliers with whom the parent company maintains an “established business relationship” (*relation commerciale établie*). Under French commercial law, such relationship covers stable and regular relationships between professionals, with or without a contract, with a certain volume of business, which creates a reasonable expectation that such relationship will last.¹¹⁴⁰

¹¹³⁶ <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000034290626&categorieLien=id> (last accessed on 28 February 2019).

¹¹³⁷ <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 3.

¹¹³⁸ <http://corporatejustice.org/news/405-french-corporate-duty-of-vigilance-law-frequently-asked-questions>.

¹¹³⁹ <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 3-4.

¹¹⁴⁰ See ECCJ (2017) Q&A 4.

Content

Relevant obligations for parties: The French Law comprises three articles amending the French Commercial Code.¹¹⁴¹ The primary obligation in Article 1 requires the companies concerned to establish, publish and implement a vigilance plan. This plan must include reasonable vigilance measures in order to identify risks and prevent serious violations of human rights and fundamental freedoms, the health and safety of people, and the environment. It has to include:

- ▶ A mapping that identifies, analyses and ranks risks;
- ▶ procedures to regularly assess, in accordance with the risk mapping, the situation of subsidiaries, subcontractors or suppliers with whom the company maintains an established commercial relationship;
- ▶ appropriate actions to mitigate risks or prevent serious violations;
- ▶ an alert mechanism that collects potential or actual risks, developed in working partnership with the trade union organizations representatives of the company concerned; and
- ▶ a monitoring scheme to follow up on the measures implemented and assess their effectiveness (*efficacité*).¹¹⁴²

Institutions, reviews and decision-making

Institutions: The French Law is addressed at companies. Involved institutions are the French Government which may add to the requirements of the law by Council of State decree, and the courts that may enforce the law in the event of complaints for non-compliance (see below at compliance procedures and remedies).

Reporting: The companies concerned are required to report on the effective implementation of the vigilance plan. The vigilance plan and reports on its implementation will be published and included in the company's annual report.¹¹⁴³

Evaluation and review: The vigilance plan has to include a monitoring scheme to follow up on the measures implemented and assess their effectiveness, and procedures to regularly assess the situation of subsidiaries, subcontractors and suppliers. Concerning the French Law itself, the law states that further requirements concerning the content of the vigilance plan may be provided by Council of State decree. Such a decree may also specify the modalities for elaborating and implementing the vigilance plan.

Compliance procedures, remedies and dispute settlement procedures: The French Law contains both a compliance procedure and remedies. If the company concerned does not establish, publish or implement the vigilance plan within three months after receiving formal notice to comply with the law, any person with a legitimate interest can file a complaint. This includes NGOs and trade union organizations with relevant statutes.¹¹⁴⁴ In such a case, the judge concerned can oblige the company, under financial compulsion if appropriate, to comply with its duties. If contested by the complainant, the judge may also decide whether the vigilance plan is complete and appropriate to fulfil the obligations prescribed by the law.¹¹⁴⁵

¹¹⁴¹ Arts. 1, 3 and 4. Article 3 is left without content after its declaration of non-conformity by the Constitutional Council.

¹¹⁴² The translation of the law provided by the European Coalition of Corporate Justice (ECCJ) uses the term "efficiency" which does not, however, correspond to the requirement in Art. 1 to put in place "an effective vigilance plan" (*met en oeuvre de manière effective un plan de vigilance*) according to ECCJ's own translation.

¹¹⁴³ The latter results from a reference to Art. L.225-102 of the French Commercial Code, see ECCJ (2017), Q&A 5.

¹¹⁴⁴ See explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, at 8 (last accessed on 28 February 2019).

¹¹⁴⁵ Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, at 8; ECCJ (2017), Q&A 6.

Moreover, Article 2 of the law establishes that in the event of non-compliance with the obligations laid down in Article 1, the company is liable and obliged to compensate for the harm that proper fulfilment of its obligations would have avoided. Any person with a legitimate interest may engage this liability through civil action and ask for compensation for harm occurred. However, this requires the proof that the company has committed a fault (no vigilance plan or non-sufficient vigilance plan), and that such fault was causal for the damage occurred.¹¹⁴⁶ Thus, the company is not liable for harm that is caused in spite of the existence of an appropriate vigilance plan.

In addition to compensation, the judge may also order the publication, distribution or display of its decision (“name and shame”).

In a former version, the bill included also a fine of up to € 10 million for non-compliance, as an additional sanction to either the compliance procedure in Article 1 or the remedies provided by Article 2. However, this sanction was declared to be unconstitutional by the Constitutional Council (*Conseil constitutionnel*) for lacking a sufficient degree of legal certainty.¹¹⁴⁷

Stakeholder and public involvement: The company stakeholders shall be involved in the drafting of the vigilance plan, where appropriate within multiparty initiatives that exist in the subsidiaries or at territorial level.¹¹⁴⁸ Moreover, the alert mechanism of the vigilance plan has to be developed in working partnership with the trade union organizations representatives of the company concerned. Finally, as mentioned before, NGOs and trade union organisations with relevant statutes are included in the persons with legitimate interest who may file a complaint for non-compliance or seek compensation for harm resulting from non-compliance. The publication of the vigilance plan and the possibility of “naming and shaming” in the event of non-compliance both involve the public to some extent.

Assessment

Coherence with other legislation and policies: According to the explanatory memorandum, the French Law conforms to the UN Guiding Principles on Business and Human Rights (UNGPs)¹¹⁴⁹ and the updated OECD Guidelines for Multinational Enterprises.¹¹⁵⁰ The UNGPs is an international framework based on three pillars: (1) a State duty to protect against human rights abuses by third parties; (2) a corporate responsibility to respect human rights; and (3) greater access by victims to effective remedy.¹¹⁵¹ It includes a human rights due diligence by business enterprises (Principle 17). According to some, the French Law is a direct implementation of the UNGPs¹¹⁵², and ECCJ (2017) refers to Principle 17, the UNGPs Interpretive Guide and the UNGPs Reporting Framework Guidance for explanations regarding the process of identifying severe human rights issues.¹¹⁵³ The OECD Guidelines are recommendations by governments to multinational enterprises. They encourage inter alia social, environmental and risk reporting, and are backed by National Contact Points established by adhering countries.

¹¹⁴⁶ Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 8; ECCJ (2017), Q&A 7.

¹¹⁴⁷ Decision of 23 March 2017, https://www.legifrance.gouv.fr/affichTexte.do?jseid=5E41E5D638C990B967EA5950F526D808.tplgfr25s_2?cidTexte=JORFTEXT000034290632&categorieLien=id (last accessed on 28 February 2019).

¹¹⁴⁸ The company stakeholders (*parties prenantes*) are defined by the explanatory memorandum as all those participating in the economic activities of the company, as well as actors of civil society affected by the company’s activities, see Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 8.

¹¹⁴⁹ Adopted by A/HRC/RES/17/4 of 6 July 2011. For the text see http://www.ohchr.org/Documents/Publications/Guiding-PrinciplesBusinessHR_EN.pdf (last accessed on 28 February 2019).

¹¹⁵⁰ <http://www.oecd.org/corporate/mne/1922428.pdf> (last accessed on 28 February 2019).

¹¹⁵¹ See <http://www.un.org/apps/news/story.asp?NewsID=38742#.We8PwWd-JaQ> (last accessed on 28 February 2019).

¹¹⁵² See Poitevin (2015) at 4.

¹¹⁵³ ECCJ (2017) Q&A 4.

As part of the international context in favor of implementing vigilance duties for companies, the explanatory memorandum further mentions the EU Non-Financial Reporting Directive.¹¹⁵⁴ Under this directive, around 6,000 large public-interest companies with more than 500 employees have to publish reports on the policies they implement in relation to environmental protection, social responsibility and treatment of employees, respect for human rights, anti-corruption and bribery, and diversity on company boards.¹¹⁵⁵ Information to be disclosed includes implemented due diligence processes related to these matters (Art. 1 (1) of the Directive). Thus the focus of the directive is on reporting to enhance transparency, not on establishing vigilance duties for the companies.¹¹⁵⁶ Other EU legislation goes beyond transparency obligations and requires the exercise of due diligence, but only for specific issues or sectors. The EU Timber Regulation¹¹⁵⁷ prohibits the placing of illegally harvested timber on the EU market and requires EU traders to exercise due diligence, and the Conflict Minerals Regulation¹¹⁵⁸ requires European companies to ensure that their trade of minerals from conflict-affected areas is not linked to human rights abuses.¹¹⁵⁹

Similar national legislation has been enacted or is being considered by other States, e.g. the UK Modern Slavery Act 2015 (Transparency in Supply Chains) Regulations 2015 or the US Alien Tort Statute.¹¹⁶⁰

Political weight of the instrument: The French Law is the first binding legislation of this sort in the world.¹¹⁶¹ This is important since stakeholders do not consider self-regulation and voluntary measures to be sufficient by themselves.¹¹⁶² Thus, the law has been greeted as “a historic step towards improving corporate respect for human rights and the environment.”¹¹⁶³ By doing so, France has adopted a pioneer’s position to be followed by other EU Member States and EU directives.¹¹⁶⁴

Consideration of small and medium-scale companies: According to the explanatory memorandum, the French Law aims at the companies the activities of which represent the bulk of international trade and potential risks, and which have the means at their disposal to implement such a vigilance plan; it thus applies to the main companies of the sectors most at risk, in the first place the manufacturing sector

¹¹⁵⁴ Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, OJ L 330/1 of 15 November 2014.

¹¹⁵⁵ See European Commission, Non-financial reporting, https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/non-financial-reporting_en (last accessed on 28 February 2019).

¹¹⁵⁶ According to the explanatory memorandum, the EU Non-financial Directive “will allow to reinforce the French provisions relating to non-financial reporting, initiated by the loi NRE (Nouvelles Régulations Économiques) of 2001 and reinforced by the loi Grenelle II” (translation by the author).

¹¹⁵⁷ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market, OJ L 295/23 of 12 November 2010. See the analysis of this regulation at Section 2.3.1.

¹¹⁵⁸ Regulation (EU) No 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas, OJ L 130/1 of 19 May 2017. See the analysis of this regulation at Section 2.3.6.

¹¹⁵⁹ ECCJ (2017) Q&A 8.

¹¹⁶⁰ For an overview see Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 5-6.

¹¹⁶¹ ECCJ, France adopts corporate duty of vigilance law: a first historic step towards better human rights and environmental protection, press release of 21 February 2017, <http://corporatejustice.org/news/393-france-adopts-corporate-duty-of-vigilance-law.html> (last accessed on 28 February 2019); Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 9.

¹¹⁶² See European Parliament resolution of 25 October 2016 on corporate liability for serious human rights abuses in third countries (2015/2315(INI)), para. 28; ECCJ (2017) Q&A 1.

¹¹⁶³ ECCJ (2017) Q&A 1.

¹¹⁶⁴ European Parliament resolution of 25 October 2016 on corporate liability for serious human rights abuses in third countries (2015/2315(INI)), para. 19; Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 9.

and the extracting sector.¹¹⁶⁵ Estimations vary between 100¹¹⁶⁶, 100-150¹¹⁶⁷ and 100-200¹¹⁶⁸ large companies under French law. Thus, small and medium-scale companies are not included in the law's scope.

Effectiveness: Due to the recent adoption of the French Law, no data are available yet to assess its effectiveness. However, some general remarks can be made. According to the explanatory memorandum, the effectiveness of the vigilance plan prescribed by the law is secured by its publicity and the powers conferred upon the courts.¹¹⁶⁹ Indeed, the possibility of any interested person to urge the company, under financial compulsion of appropriate, to comply with its duties, and of the judge to verify if the plan is complete and appropriate, is a strong instrument for securing compliance. The potential fines of up to € 10 million provided in a former version of the bill and declared unconstitutional by the Constitutional Council would have created an even stronger incentive to comply with the law, but their removal does not undermine the general mechanism of the law.¹¹⁷⁰ Moreover, enabling victims to obtain compensation for harm resulting of non-compliance with the law is a major improvement, since before the law parent companies could not be held responsible for subsidiaries in other countries.¹¹⁷¹ However, a considerable barrier for obtaining compensation is that the claimants have to prove that the company has committed a fault (no vigilance plan or non-sufficient vigilance plan), and that such fault was causal for the damage occurred. NGOs have criticized this provision as "further accentuating the imbalance of power between large companies and victims of abuse."¹¹⁷² Still, the required content of the mandatory vigilance plan makes it easier for victims to overcome the burden of proof.¹¹⁷³ Moreover, the "name and shame" provision of the law have a dissuasive effect on the companies which may face a reputational loss if they do not comply with the law.¹¹⁷⁴ NGOs also have criticized the limited scope of the law, covering only the largest companies.¹¹⁷⁵ Overall, however, the French Law is considered "the most effective response to date to the existing business and human rights governance gap."¹¹⁷⁶

Political opportunities and good practice examples:

- Being the first binding legislation of this sort in the world, the French Law could serve as a model for other countries or inspire EU legislation. It could be explored to what extent its approach, in particular the duty to have and implement a plan rather than imposing specific duties, could be suitable for governance at the international level.

¹¹⁶⁵ Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 8.

¹¹⁶⁶ ECCJ, France adopts corporate duty of vigilance law: a first historic step towards better human rights and environmental protection, press release of 21 February 2017, <http://corporatejustice.org/news/393-france-adopts-corporate-duty-of-vigilance-law.html>.

¹¹⁶⁷ ECCJ (2017) Q&A 3.

¹¹⁶⁸ Poitevin (2015) at 2.

¹¹⁶⁹ Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 8.

¹¹⁷⁰ ECCJ, Last hurdle overcome for landmark decision: French Corporate duty of vigilance law gets green light from Constitutional Council, 24 March 2017, <http://corporatejustice.org/news/435-last-hurdle-overcome-for-landmark-legislation-french-corporate-duty-of-vigilance-law-gets-green-light-from-constitutional-council> (last accessed on 28 February 2019).

¹¹⁷¹ Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 4. But see the reference at 5 to the decision of the Cour de Cassation of 25 September 2012 in the Erika case, where the Court acknowledged the parent company's responsibility for certain activities of its subsidiary outside French territory, based on its voluntary commitment to control the state of its ships.

¹¹⁷² See ECCJ, France adopts corporate duty of vigilance law: a first historic step towards better human rights and environmental protection, press release of 21 February 2017, <http://corporatejustice.org/news/393-france-adopts-corporate-duty-of-vigilance-law.html>.

¹¹⁷³ ECCJ (2017) Q&A 1.

¹¹⁷⁴ Explanatory memorandum, <http://www.assemblee-nationale.fr/14/propositions/pion2578.asp>, p. 8.

¹¹⁷⁵ See ECCJ, France adopts corporate duty of vigilance law: a first historic step towards better human rights and environmental protection, press release of 21 February 2017, <http://corporatejustice.org/news/393-france-adopts-corporate-duty-of-vigilance-law.html>.

¹¹⁷⁶ ECCJ (2017) Q&A 8.

- ▶ Good practice: mandatory vigilance plan for large companies, backed by remedies for any interested person to ensure compliance
- ▶ Good practice: liability for non-compliance and access to justice for victims of resulting harm

2.3.3 US Alien Tort Statute

Table 41: Alien Tort Statute (1789)

Key aspects	Summary
Form and legal status	Binding US law
Objectives	Establish jurisdiction in US courts for violations of international law
Parties	n/a
Territorial scope	In principle global, but courts require specific links to the US
Resources covered	All
Stage of the value chain	All stages
Steering mechanisms	Civil liability, access to justice
Political weight	+
Relevance	+

Summary

The Alien Tort Statute (ATS) gives federal courts jurisdiction for claims by foreigners for conduct that is a violation of international law. Since the 1980s it has been used to bring claims against US and foreign corporations for alleged violations of human rights and environmental standards in other countries. This development was highly relevant for the mining industry, as it faced litigation and potentially huge damages in the US legal system about complaints that it was responsible for human rights abuses in other countries. However, in recent years US courts have interpreted the ATS quite restrictively and severely reduced its potential for enforcing environmental and social standards against non-US corporations through civil claims in US courts.

Overview

Form and legal status: The ATS, also referred to as the Alien Tort Claims Act, is a US law from 1789. In slightly modified wording, the short statute is still part of the federal US Code: “The district courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the United States.”¹¹⁷⁷

Objectives: The ATS gives federal courts jurisdiction to hear claims against foreigners for conduct that is a violation of international law. While the precise motivation of and objective for the original Act are unclear, it is likely that the young US sought to provide access to foreign diplomats and merchants. After a period of virtually no cases, US court decisions since the 1980s were regarded as a means to give global effect to human rights standards.¹¹⁷⁸

Territorial scope: The key aspect of the ATS is that it could allow claims in US courts against US and foreign defendants for alleged violations of modern-day customary international law *in other countries*.

¹¹⁷⁷ 28 USC § 1350.

¹¹⁷⁸ Schulz (2016) at 48.

Type of steering tool: Access to court system and potential civil liability.

Links to extraction, processing and transport of resources

Resources covered: All resources are covered, since all extraction processes could potentially violate international law standards of international law.

Environmental and social impacts covered: At the time the ATS was enacted, the potential violations covered by the ATS included only “violation of safe conducts, infringement of the rights of ambassadors, and piracy”.¹¹⁷⁹ Since its rediscovery in the 1980s, the courts interpreted the reference to international ATS as including treaties as well as customary international law as it evolved as exists today. However, customary law has to be sufficiently precise, i.e. “universal, obligatory and definable”.¹¹⁸⁰ Since then the ATS has been used for bringing claims in the US against foreign companies for violations of, inter alia, of human rights or environmental standards¹¹⁸¹ in foreign countries. US Courts have so far been reluctant to accept environmental ATS claims.¹¹⁸²

Steps of the value chain covered: All steps of the value chain.

Content

Relevant obligations for parties: The ATS is a procedural rule of domestic US law. It gives US courts jurisdiction for claims brought by aliens for violations of international law. Although the grounds for the claim is a violation of international law, potential defendants also include US and foreign private actors such as mining corporations.¹¹⁸³ The relevant international law includes treaties and customary law, including e.g. human rights standards. Customary law has to be sufficiently precise, i.e. “universal, obligatory and definable”.

Although the alleged violation is one of international law, the potential defendants includes private actors.

Institutions, reviews and decision-making

Institutions: Provided the ATS requirements are met, the ATS enables the plaintiffs to use US Courts to enforce standards of international law.

Reporting: -/-

Evaluation and review: There is no review or sunset clause for the ATS. Potential changes may come through the interpretation by the courts, although the current restrictive line was established quite recently in 2013.

Compliance procedures, remedies and dispute settlement procedures: An implementation and compliance committee is envisaged to promote implementation of, and compliance with all obligations under the Agreement. Most details on the modalities and procedures of the committee still need to be determined by the CMA.

Stakeholder and public involvement: To the extent allowed as part of the court proceedings.

¹¹⁷⁹ US Supreme Court, *Sosa v. Alvarez-Machain*, 542 U.S. 692, 724 (2004).

¹¹⁸⁰ Schulz (2016) at 46.

¹¹⁸¹ Analysis of case law in Jawger (2010) at 526-534.

¹¹⁸² Jawger (2010) at 524.

¹¹⁸³ Schulz (2016) at 52.

Assessment

Coherence with other international treaties and policies: The ATS provides the possibility to enforce human rights and environmental standards established by international law directly against private defendants through domestic civil litigation. This is consistent with the third pillar of the UN Guiding Principles on Business and Human Rights, which addresses “access to remedy”, although it refers to conduct that occurs within the respective territory and/or jurisdiction.¹¹⁸⁴ It is also consistent with international law, which in principle gives wide discretion to states to apply their laws extraterritorially.¹¹⁸⁵

Political weight of the instrument: Although it is an instrument of domestic US law, ATS claims gained global attention and increased public pressure, but also led to a political debate about transnational litigation.¹¹⁸⁶

Consideration of small and medium-scale companies: The ATS applies to SME as well.

Effectiveness: Following its rediscovery, the possibility of multi-million dollar claims brought under ATS litigation in the US legal system opened a potentially effective incentive for private actors to comply with international human rights and environmental standards. ATS claims also gained global attention and increased public pressure. However, in recent years the US Supreme Court has interpreted the ATS quite restrictively and severely reduced its potential for enforcing environmental and social standards through civil claims in US courts. Following a decision in 2013, ATS claims now have to demonstrate specific links to the US in order to be allowed. The presumption against extraterritoriality to a large extent limits the possibility of suing foreign corporations, while claims against US corporations remain possible.¹¹⁸⁷

Political opportunities and good practice examples:

- ▶ The practice of ATS litigation shows that private companies can be made responsible in domestic law for violations of international law.
- ▶ Since the ATS is a rule of domestic US law, political opportunities for influencing its application by US courts are limited from the outset.
- ▶ It does not seem useful to contemplate promoting that relevant human and environmental standards become customary law in order to broaden the potential basis for ATS litigation.
- ▶ The current and future possibilities of access to domestic courts for violations of relevant standards abroad could be explored in line with the UN Guiding Principles on Business and Human Rights - as a matter of domestic law.

¹¹⁸⁴ OHCHR (2011) foundational principle 25.

¹¹⁸⁵ Schulz (2016) at 108-109.

¹¹⁸⁶ Schulz (2016) at 50-51.

¹¹⁸⁷ US Supreme Court, *Kiobel v. Royal Dutch Petroleum*, No. 10–1491 (U.S. Apr. 17, 2013), see comprehensive analysis in Schulz (2016) at 116-170.

2.3.4 EU Public Procurement Directive

Table 42: EU Public Procurement Directive (28 March 2014)

Key aspects	Summary
Form and legal status	Binding and in force since 2014
Objectives	Regulates the procedures for procurement by contracting authorities with respect to public contracts. Follows a balanced policy which fosters demand for environmentally sustainable, socially responsible and innovative goods, services and works.
Parties	EU Member States
Territorial scope	EU Member States
Resources covered	Potentially any resource that is linked to subject matter of the purchased good or service (including minerals)
Stage of the value chain	Addresses the final producer or service provider. Offers the possibility to demand standards for whole value chain as the whole life-cycle of the procured product can be addressed.
Steering tool	Economic instrument. Setting environmental and social conditions which the procured products have to comply with.
Assessment	++

Summary

Public procurement plays a key role in the Europe 2020 strategy, set out in the Commission Communication of 3 March 2010 entitled “Europe 2020, a strategy for smart, sustainable and inclusive growth” as one of the market-based instruments to be used to achieve smart, sustainable and inclusive growth. Consequently, the Procurement Directive 2014/24/EU follows a balanced policy which fosters demand for environmentally sustainable, socially responsible and innovative goods, services and works. Contracting authorities in the EU and Germany can in principle set environmental and social criteria regarding the extraction of minerals and their processing. However, there are no concrete (binding) environmental criteria with a view to mineral extraction or social criteria regulated in Directive 2014/24/EU or in national legislation of Germany (GWB and VgV). Therefore contracting authorities who use criteria in the procurement according to their own expertise and knowledge bear the legal risk to be sued before courts. However, according to the Directive 2014/24/EU European and (multi-)national labels or any other label, provided it complies with minimum criteria, play an important role for the contracting authorities as a source for environmental and social criteria to be included in the tender specifications or to refer to as a means of proof that that tender specifications are met by the bidding companies.

Overview

Form and legal status: Directive 2014/24/EU on public procurement¹¹⁸⁸ is in force since 2014 and has as such predecessor directives from 2004 and 1998 and many others dating back to 1971.¹¹⁸⁹ Directives as legal acts of the European Union are binding for the addressed Member States (normally all Member States) in their objectives but leave the states with a discretion as to the exact rules to be

¹¹⁸⁸ Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, p. 65–242.

¹¹⁸⁹ For the historical background see EU Commission (2011), p.175.

adopted. Several daughter directives exist, Directive 2014/25/EU on the procurement by entities operating in the water, energy, transport and postal services sectors¹¹⁹⁰, Directive 2014/23/EU on the award of concession contracts¹¹⁹¹ and Directive 2009/81/EC for public procurement in the fields of defence and security.¹¹⁹²

Objectives: EU Public Procurement Directives regulate the procedures for procurement by contracting authorities with respect to public contracts applying to procurements with a value to be equal to or greater than given thresholds (cf. Art. 1 and 4 Directive 2014/24/EU). The Directives apply common principles of transparency, open competition and sound procedural management to public contract award procedures which are likely to be of interest to suppliers across the single market. Open and well regulated procurement markets are expected to contribute to a better use of public resources. The procurement Directives follow a balanced policy which fosters demand for environmentally sustainable, socially responsible and innovative goods, services and works (cf. Art. 42 and Art. 67 2014/24/EU).

Territorial scope: Member States' contracting authorities have to comply with Directive 2014/24/EU when purchasing goods and services. However, the territorial scope can expand worldwide as the contracting authority can define social and environmental characteristics of the purchased products throughout the whole life-cycle, i.e. from the extraction of the raw materials to the intermediate product and final product.

Links to extraction, processing and transport of resources

Resources covered: Potentially, any resource (including minerals) that is necessary to produce the procured product or to conduct a service is covered as the contracting authority can address every environmental impact that is linked to the product across the life-cycle of the product (see below "Relevant obligations for parties").

Environmental and social impacts covered: Contracting authorities can address environmental and social impacts in the life-cycle of goods and services they purchase; the EU Commission uses the terms Green Public Procurement (GPP) and Socially Responsible Public Procurement (SRPP) for such procurement policies.¹¹⁹³ GPP in the Communication¹¹⁹⁴ is defined as 'Public procurement for a better environment' as 'a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured.' Furthermore, sustainable public procurement aims at striking a balance between the economic, social and environmental dimension when making a procurement choice. Life-cycle costing plays an important role in GPP, as it includes environmental externalities in the pricing of goods and services, and therefore contributes to a better visibility of the most economically advantageous tender.

Socially responsible public procurement (SRPP) includes social aspects in the purchasing decision of the public body. The Commission already developed in 2010¹¹⁹⁴ a list of social considerations that could

¹¹⁹⁰ Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, 28.3.2014, p. 243–374.

¹¹⁹¹ Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, OJ L 94, 28.3.2014.

¹¹⁹² Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC, OJ L 216, 20.8.2009, p. 76–136.

¹¹⁹³ For information about green public procurement see European Commission (2016a): Buying green! A handbook on public procurement, 3rd Edition, available at <http://ec.europa.eu/environment/gpp/pdf/Buying-Green-Handbook-3rd-Edition.pdf> (last accessed on 28 February 2019).

¹¹⁹⁴ COM (2008), p. 400.

be included in tender processes.¹¹⁹⁵ This included employment opportunities, decent work, compliance with social and labour rights, social inclusion (including persons with disabilities), equal opportunities, accessibility and design for all, taking into account sustainability criteria, ethical trade issues, and wider voluntary compliance with corporate social responsibility.

According to Article 42 Directive 2014/24/EU characteristics may also refer to the specific process or method of production or provision of the requested works, supplies or services or to a specific process for another stage of its life cycle even where such factors do not form part of their material substance provided that they are linked to the subject-matter of the contract and proportionate to its value and its objectives. Included impacts “which do not form part of the material substance” which is quite often the case with social impacts and environmental impacts regarding the extraction of minerals.

Article 68 Directive 2014/24/EU contains further provisions how to include life-cycle costing in a tender. Costs over the life cycle of a product or service cover costs, borne by the contracting authority or other users and costs imputed to environmental externalities linked to the product, service or works during its life cycle. The latter requires that the monetary value of the environmental externalities can be determined and verified; such costs may include the cost of emissions of greenhouse gases and of other pollutant emissions and other climate change mitigation costs.

Steps of the value chain covered: Environmental and social characteristics of products and services in the first place have to be met by the final producer or service provider (contracting party). As the life-cycle of products can be addressed the contracting authority has the possibility to demand standards for whole value chain as the whole life-cycle of the procured product can be addressed.

Type of steering tool: Public procurement is a market-based instrument.

Content

Relevant obligations for parties: Contracting authorities are entitled to define environmental and social criteria which the procured products and services must comply with on various steps of a procurement process reaching from technical specifications, award criteria to contract clauses. In a few cases the Directive 2014/24/EU even obliges contracting authorities to set environmental criteria, i.e. the energy consumption of vehicles and energy-using products.

Environmental criteria can be part of a product’s technical specification as Art. 42 Directive 2014/24/EU states that specifications may also refer to the specific process or method of production or provision of the requested works, supplies or services or to a specific process for another stage of its life cycle even where such factors do not form part of their material substance provided that they are linked to the subject-matter of the contract and proportionate to its value and its objectives.

With respect to award criteria, Article 67 Directive 2004/24/EU states that when identifying the most economically advantageous tender the best price-quality ratio is decisive, which shall be assessed on the basis of criteria, including qualitative, environmental and/or social aspects, linked to the subject-matter of the public contract in question.

On the level of contract clauses contracting authorities can lay down special provisions for suppliers to comply with environmental and social criteria (cf. Art. 70 Directive 2014/24/EU).

According to the Directive European and (multi-)national labels or any other label provided it complies with minimum criteria play an important role for the contracting authorities as a source for environmental and social criteria to be included in the tender specifications or to refer to as a means of proof that that tender specifications are met by the bidding companies.

¹¹⁹⁵ EU Commission (2010).

Institutions, reviews and decision-making

Institutions: EU Commission, National and regional Governments setting rules for public procurement.

Reporting: According to Article 83 Directive 2014/24/EU, Member States are obliged to monitor public procurement rules and make them available to the public. By 18 April 2017 and every three years thereafter, Member States shall submit to the Commission a monitoring report covering, where applicable, information on the most frequent sources of wrong application or of legal uncertainty. Furthermore the Commission can, every three years, request Member States to provide information on the practical implementation of national strategic procurement policies and subsequently shall regularly issue a report on the implementation and best practices of national procurement policies in the internal market¹¹⁹⁶. However, the Commission runs electronic systems for publication of contract award notices and should periodically examine the quality and completeness of the information in these systems in order to extract statistical information¹¹⁹⁷.

Evaluation and review: According to Article 92 Directive 2014/24/EU the Commission shall review the economic effects on the internal market, in particular in terms of factors such as the cross-border award of contracts and transaction costs, resulting from the application of the thresholds set in Article 4 and report thereon to the European Parliament and the Council by 18 April 2019.

Compliance procedures, remedies and dispute settlement procedures: compliance procedures according to the TFEU.

Stakeholder and public involvement: Engagement in the legislative process of the Directive and national implementation regulations.

Assessment

Coherence with other international treaties and policies: Procurement procedures must be in accordance with certain Annexes and the General Notes to the European Union's Appendix 1 to the Government Procurement Agreement (GPA). Contracting authorities shall accord to supply and services of the signatories to those agreements treatment no less favourable than the treatment accorded to the works, supplies, services and economic operators of the Union. For more details on the GPA see the policy brief "Government Procurement Agreement").

The award of public contracts has to comply with the principles of the TFEU, and in particular the free movement of goods, freedom of establishment and the freedom to provide services, as well as the principles deriving therefrom, such as equal treatment, non-discrimination, mutual recognition, proportionality and transparency¹¹⁹⁸.

Political weight of the instrument: Public procurement plays a key role in the Europe 2020 strategy, set out in the Commission Communication of 3 March 2010 entitled "Europe 2020, a strategy for smart, sustainable and inclusive growth"¹¹⁹⁹ as one of the market-based instruments to be used to achieve smart, sustainable and inclusive growth while.

Directive 2014/24/EU is without prejudice to the freedom of national, regional and local authorities to define, in conformity with Union law, services of general economic interest, their scope and the characteristics of the service to be provided, including any conditions regarding the quality of the service, in order to pursue their public policy objectives.

¹¹⁹⁶ Article 83 para. 3 Directive 2004/24/EU.

¹¹⁹⁷ Cf. Article 85 Directive 2004/24/EU.

¹¹⁹⁸ Cf. 1. Remark of Directive 2014/24/EU.

¹¹⁹⁹ Cf. European Commission (2010).

Consideration of small and medium-scale companies: The Directive 2014/24/EU aims to further the possibilities of SMEs to participate in public procurement; one means is to divide large contracts into smaller lots.¹²⁰⁰

Effectiveness – if data are available: The public market power in procurement is considerable. Only for Germany the volume of public procurement is estimated ranging from € 150 billion a year to € 440 billion.¹²⁰¹ Therefore sustainable public procurement can make a significant contribution to improving the quality of the environment and social conditions.

However, a survey of 20 jurisdictions worldwide finds that in practice procurement laws and practices fail to ensure that social, environmental and human rights criteria are taken up in public contracts by the contracting authorities, and that only few countries apply respective measures.¹²⁰²

In the EU out of the six countries that have a formalised SRPP strategy, only the Netherlands and France have committed to the mandatory implementation of social standards at national level.¹²⁰³

Table 43: Mandatory or voluntary approaches to strategic public procurement in the EU

Country	GPP	SRPP
Austria	Mandatory for central government	Voluntary
France	Mandatory for selected product groups	Mandatory
Latvia	Voluntary	n/a
Netherlands	Mandatory for central government	Mandatory for central government
Poland	Voluntary	Voluntary
Portugal	n/a	n/a
Slovakia	Voluntary	n/a
Spain	Voluntary	Voluntary
Sweden	Voluntary	Voluntary
United Kingdom	Mandatory for central government	Voluntary

Source: European Commission (2015): Study on “Strategic use of public procurement in promoting green, social and innovation policies”, p. 28.

The Dutch central government has an obligation to respect core ILO criteria in all its contracts above EU thresholds. In addition, for the product groups “coffee/tea”, “cocoa”, “textile” and “flowers” more restrictive criteria apply covering also working hours, health and safety at the workplace and adequate wage. France requires the introduction of basic mandatory SRPP requirements in all tenders published.¹²⁰⁴ Under British and Italian public procurement rules, for example, tenderers may be excluded from bidding for human rights abuses and other grave misconduct.¹²⁰⁵ Sweden’s National Agency for Public Procurement included award criteria on conflict minerals in accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas

¹²⁰⁰ Cf. Remark 78 of the Directive, see European Commission (2008).

¹²⁰¹ Umweltbundesamt (ed.) (2008).

¹²⁰² Cf. Methven O'brien et al. (2016).

¹²⁰³ European Commission (2015), p. 25.

¹²⁰⁴ European Commission (2015), p. 26.

¹²⁰⁵ Cf. Secretary of State for Foreign and Commonwealth Affairs (2013).

in a tender for mobile phones but ultimately none of the bidders were able to report such.¹²⁰⁶ This is in line with the finding that a lack of maturity exists for certain GPP and SRPP goods and services demanded.¹²⁰⁷

A study on 10 EU Member States¹²⁰⁸ shows that monitoring and evaluation in public procurement differs between GPP, where monitoring is taking place being the most mature policy, and SRPP with less monitoring. For the Netherlands a study by SOMO found that social criteria are rarely adequately applied or monitored.¹²⁰⁹

Political opportunities and good practice examples:

Directive 2014/14/EU provides the Member States with the option to set legal defined criteria on environmental and social criteria for the extraction and processing of raw materials / minerals used in products they purchase (life-cycle-aspects). Thus providing legal certainty for the contracting authorities if they decide to use those criteria in their procurement procedure would be a political option to support responsible mining. Moreover, contracting authorities have the possibility to set environmental and social criteria for products and services they purchase. For example the economically best tender can also be assessed by environmental or social criteria, § 124 paragraph 1 GWB; contracting authorities entities may set special provisions for the performance or quality of the tender that can relate to environmental and social issues, § 128 paragraph 2 GWB.

¹²⁰⁶ Cf. Methven O'brien et al. (2016).

¹²⁰⁷ European Commission (2015), p. 7.

¹²⁰⁸ European Commission (2015), p. 6.

¹²⁰⁹ Cf. ten Kate (2014).

2.3.5 EU Corporate Social Responsibility (CSR) Directive

Table 44: EU Corporate Social Responsibility (CSR) Directive (22 October 2014)

Key aspects	Summary
Form and legal status	Binding and in force
Objectives	The Directive specifies how large public-interest entities shall disclose social and environmental information in their annual reports.
Parties	Member States of the EU.
Territorial scope	Focus on EU. In so far global as it includes “third countries” in which companies operate and (where relevant and proportionate) information on due diligence processes regarding the supply and subcontracting chains.
Resources covered	Due to its wide scope of social and environmental information there is no limitation with respect to the resources covered.
Stage of the value chain	There is no limitation of scope with respect to the value chain. Statements should also include information on the due diligence processes implemented regarding its supply and subcontracting chains
Steering tool	Compliance with obligations regarding transparency and public reporting/disclosure. Third party auditing.
Assessment	+

Summary

The CSR-Directive¹²¹⁰ amends the 2013 Accounting Directive¹²¹¹ and specifies how large companies (more than 500 employees) shall disclose social and environmental information in their annual country-by-country report, containing certain non-financial information for each Member State and third country in which they operate. In order to increase the transparency of their sustainability-related actions and results, these companies need to report information “relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters” and diversity on their board of directors starting from 2018, by referring to the financial year 2017.

Where the company does not pursue policies in relation to one or more of those matters, the non-financial statement shall provide a clear and reasoned explanation for not doing so. The non-financial statement can be filed by the group/parent company, rather than individually by all affiliate companies. The Directive contains a safe-harbour provision. This means that Member States may allow certain sensitive operational information to be omitted in exceptional cases where the disclosure of such information would be seriously prejudicial to the commercial position of the undertaking.

Overview

Form and legal status: The CSR-Directive needs to be transposed into national law by the Member States, in the case of the CSR-Directive until 6 December 2016. EU-Directives leave the Member States with leeway as to the exact substance of its implementation – the CSR-Directive therefore establishes certain general legal requirements as regards the addressees of the obligations, and the nature and extent of the information that should be made available to the public and authorities.¹²¹²

¹²¹⁰ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095&from=EN> (last accessed on 28 February 2019).

¹²¹¹ Directive 2013/34/EU, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013L0034&from=DE> (last accessed on 28 February 2019) (hereinafter referred to as ‘CSR-Directive’).

¹²¹² Preamble (5), CSR-Directive.

Objectives: The CSR-Directive is part of the more comprehensive EU objective to harmonize Europe's legal framework for accounting. Building on the "EU 2020 Agenda", the Commission has put forward a package of measures (the "Responsible Business Package") to support entrepreneurship and responsible business. The package includes legislative proposals to revise the Accounting Directives and the Transparency Directive, with the aim of improving transparency and promoting sustainable business.¹²¹³¹²¹⁴

By prescribing the disclosure of non-financial information, the Directive shall contribute to managing change towards a sustainable global economy by combining long-term profitability with social justice and environmental protection.¹²¹⁵

Transparency is, furthermore, considered to lead to better performance: It engenders confidence, both among investors as among consumers and other stakeholders. Investors can better assess the opportunities and risks of their future investment if they are provided with insight into the policies and performance of non-financial aspects of the business.¹²¹⁶

To this end, the EU Parliament adopted Directive 2014/95/EU on 22 October 2014 amending Directive 2013/34/EU. The Directive requires the future disclosure of certain non-financial and diversity information, such as social and environmental factors, and seeks to identify the contributions made by undertakings towards a sustainable development, to increase the trust of investors and consumers and to raise the competitiveness of European undertakings as well as the European Economic Area as a whole.¹²¹⁷

Coordination is seen to be necessary in those fields because most of those undertakings operate in more than one Member State.¹²¹⁸ The Directive shall, therefore, also enhance the consistency and comparability of non-financial information disclosed throughout the Union.

Territorial scope: The Directive is addressed to the Member States of the European Union. In so far as it includes "third countries" in which companies operate and (where relevant and proportionate) information on due diligence processes regarding the supply and subcontracting chains.

Links to extraction, processing and transport of resources

Resources covered: The Directive focusses on the disclosure of non-financial information concerning CSR in a general way. It therefore does not relate to concrete resources.

Environmental and social impacts covered: Preamble paragraph 7 of the CSR-Directive states that statements should contain, as regards **environmental matters**, details of the current and foreseeable impacts of the undertaking's operations on the environment, and, as appropriate, on health and safety, the use of renewable and/or non-renewable energy, greenhouse gas emissions, water use and air pollution.

As regards **social and employee-related matters**, the information provided in the statement may concern the actions taken to ensure gender equality, implementation of fundamental conventions of the International Labour Organisation, working conditions, social dialogue, respect for the right of workers to be informed and consulted, respect for trade union rights, health and safety at work and the dialogue with local communities, and/or the actions taken to ensure the protection and the development of those communities.

¹²¹³ SWD (2013) 127 final, p. 4, available on the internet at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2013:0127:FIN:EN:PDF> (last accessed on 28 February 2019).

¹²¹⁴ Preamble (3), (4), CSR-Directive.

¹²¹⁵ Preamble (3), CSR-Directive.

¹²¹⁶ Van Sabben et al. (2017) at 2; see Chen et al. (2015).

¹²¹⁷ Deutscher Nachhaltigkeitskodex (2015), p. 1.

¹²¹⁸ Preamble (4), CSR-Directive.

With regard to **human rights, anti-corruption and bribery**, the non-financial statement could include information on the prevention of human rights abuses and/or on instruments in place to fight corruption and bribery.

Steps of the value chain covered: Where relevant and proportionate, the non-financial statement shall also include information on the due diligence processes implemented regarding the supply and sub-contracting chains of the undertaking, in order to identify, prevent and mitigate existing and potential adverse impacts.

Content

Type of steering tool: The Directive's objectives are to be realized by the public disclosure of non-financial information. Preamble paragraph 3 holds that disclosure of non-financial information supports the measuring, monitoring and managing of undertakings' performance and their impact on society.

Relevant obligations for parties: Member States, as parties of the Directive, were obliged to transpose it within the scope of its provisions until 6 December 2016.

The addressees of the transposition of the Directive by Member States, i.e. large undertakings which are public-interest entities exceeding 500 employees, shall include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking's development, performance, position and impact of its activity, relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters, including:

- ▶ a brief description of the undertaking's business model;
- ▶ a description of the policies pursued by the undertaking in relation to those matters, including due diligence processes implemented;
- ▶ the outcome of those policies;
- ▶ the principal risks related to those matters linked to the undertaking's operations including, where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas, and how the undertaking manages those risks; and
- ▶ non-financial key performance indicators relevant to the particular business.

Where the undertaking does not pursue policies in relation to one or more of those matters, the non-financial statement shall provide a clear and reasoned explanation for not doing so.¹²¹⁹

If the undertaking and its subsidiary undertakings are included in the consolidated management report or the separate report of another undertaking, drawn up in accordance with the provisions of the amended Accounting-Directive, the subsidiary undertakings shall be exempted from the disclosure obligations.

Large public-interest entities are defined as those that:

- ▶ Have more than 500 employees (Art. 1(1) CSR-Directive);
- ▶ Are "public-interest" organizations, which are defined to include EU exchange listed companies as well as some unlisted companies, such as credit institutions, insurance undertakings, and other businesses selected by Member States (based on size, number of employees, and/or activities) (Art. 2(1) Accounting-Directive); and
- ▶ Have a balance sheet total of at least EUR 20 million or a net turnover of at least EUR 40 million. (Art. 3(4) Accounting-Directive).

¹²¹⁹ Art. 1(1) (a), (e) CSR-Directive.

Member States may allow information relating to impending developments or matters in the course of negotiation to be omitted in exceptional cases where the disclosure of such information would be seriously prejudicial to the commercial position of the undertaking, provided that such an omission does not prevent a fair and balanced understanding of the undertaking's development, performance, position and impact of its activity (safe-harbour provision).¹²²⁰

Institutions, reviews and decision-making

Institutions: The Directive prescribes that Member States should ensure that effective national procedures are in place to enforce compliance with the respective obligations and ensure that effective means exist to guarantee compliance with its provisions.

This includes the establishment of procedures, which are available to all persons and legal entities having a legitimate interest in ensuring that the provisions of this Directive are respected.¹²²¹

Reporting: The non-financial information to be disclosed according to the CSA-Directive is to be included in the annual management report regulated by the Accounting-Directive and national laws. The CSR-Directive provides companies with significant flexibility in tailoring its disclosures, including through the use of recognized international, European, or national guidelines, such as the United Nations Global Compact, ISO 26000, the OECD Guidelines for Multinational Enterprises, or the Global Reporting Initiative.¹²²²

In addition, the Commission prepares non-binding guidelines on methodology for reporting non-financial information, including non-financial key performance indicators, general and sectoral, with a view to facilitating relevant, useful and comparable disclosure of non-financial information by the undertakings (Art. 2 CSR-Directive).¹²²³ The Guidelines were adopted by the Commission on 26 June 2017 after extensive public consultations including a broad, web-based public consultation in 2016.

Evaluation and review: The Commission shall submit a report to the European Parliament and to the Council on the implementation of this Directive, including, among other aspects, its scope, particularly as regards large non-listed undertakings, its effectiveness and the level of guidance and methods provided. The report shall be published by 6 December 2018 and shall be accompanied, if appropriate, by legislative proposals (Art. 3 CSR-Directive).

Compliance procedures, remedies and dispute settlement procedures: The CSR-Directive adopts the “comply or explain” principle: if a company fails to pursue policies relating to anti-bribery and corruption, environmental, or other non-financial matters, it will have to explain why in its annual report.¹²²⁴

Specific penalties for failure to comply have not been determined by the Directive. However, the Member States are obliged to provide effective means for its implementation according to Article 4(3) of the Treaty on European Union (*effet utile*). This could include sanctions like punitive damages or penal provisions.¹²²⁵

Stakeholder and public involvement: Prominent stakeholders include:¹²²⁶

- The management of the respective companies, as internal decision and policy maker, needs information for corporate management and risk assessment;

¹²²⁰ Art. 1(1)(e), (3)(1)(e) CSR-Directive; cf. Keimeyer and Pianowsky (2015) at 26.

¹²²¹ Preamble, (10), CSR-Directive.

¹²²² Thomas and Maguire (2014) at 3.

¹²²³ [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705\(01\)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52017XC0705(01)) (last accessed on 28 February 2019).

¹²²⁴ Thomas and Maguire (2014) at 4; Art. 1(1), CSR-Directive.

¹²²⁵ According to Keimeyer and Pianowsky (2015) at 29. For Germany see § 334 Abs. 1 Nr. 3 HGB.

¹²²⁶ Keimeyer Pianowsky (2015) at 8.

- ▶ Employees: Sustainability – for example aspects of climate protection¹²²⁷ – can be an important criterion especially for the choice of employers of highly qualified young people.
- ▶ Consumers (B2C) and other clients (B2B): CSR information is increasingly relevant for consumers and already has a considerable importance for business partners in the value chain.
- ▶ Suppliers: Suppliers depend on CSR information for adequate risk assessment.
- ▶ Investors and other providers of capital: Investors – especially institutional investors – frequently require the disclosure of information concerning climate protection and other CSR-related issues.
- ▶ The state: States necessitate information as a basis for regulatory activities.
- ▶ NGO's and the public.

Assessment

Coherence with other international treaties and policies: The CSR-Directive contains provisions to ensure coherence with certain other international treaties and policies. It stipulates that the report to be conducted by the Commission according to Article 48 of the amended Accounting-Directive shall consider, taking into account developments in the OECD and the results of related European initiatives, the possibility of introducing an obligation requiring large companies to produce a country-by-country report for each Member State and third country in which they operate, containing certain non-financial information annually.

Political weight of the instrument: The CSR-Directive can be considered to contain a paradigm-shift in at least two respects: For the first time, transparency shall be provided not only for investors, owners or obligees of the respective company, but also for third parties and the public. At the same time, it, at least indirectly, may cause a change of business or management practices concerning CSR by introducing compulsory disclosure obligations.¹²²⁸ The integrated disclosure of CSR information may also raise the awareness of economic actors for sustainability-related issues. On the other hand, elements of the Directive still are unsatisfying or problematic: The threshold of entities with over 500 employees is being criticised from a political¹²²⁹ as well as from a legal perspective¹²³⁰. The flexibility for companies provided by the safe harbour provision and the principle of comply-or-explain may reduce its effectiveness. The overall effects of the provisions of the Directive are, however, determined by its transposition into national laws.

Consideration of small and medium-scale companies: The new provisions are applicable to public interest entities with over 500 employees. Public interest entities are companies, such as listed undertakings, banks, insurance companies or undertakings which are of significant public relevance because of the nature of their business, their size or their corporate status. Small and medium-sized companies are exempted from the new reporting obligation (preamble (14)).

Effectiveness – if data are available: The effectiveness of the directive – to a considerable extent – hinges on its incorporation and implementation by member states. The overall effects of the provisions of the Directive are therefore determined by its transposition into national laws, as member state use the flexibilities, the Directive leaves for the concretization of its provisions, e.g. with respect to the company scope or penalties for failure to comply in different ways.¹²³¹ An assessment of the potential of the directive to achieve its objectives can be conducted after the first reporting period in 2018, up to the present only a general and provisional evaluation is possible. As indicated, transparency with respect to CSR-practices may cause a change of approaches to business and management

¹²²⁷ PWC (2012).

¹²²⁸ See Grabosch (2015) at 98; Keimeyer and Pianowsky (2015) at 25.

¹²²⁹ <http://www.vzbv.de/meldung/gesellschaftliche-verantwortung-von-unternehmen-endet-als-minimalkompromiss> (last accessed on 28 February 2019); Bayer (2016) at 4.

¹²³⁰ Grabosch (2015) at 9.

¹²³¹ For an overview of the transposition gateway and a general description of the Member State implementation see CSR Europe, p. 10, 15.

and raise awareness for sustainability-related issues. It can be assumed however, that the effectiveness of the directive may at least in part depend on the specific mechanisms for its implementation and sanctioning to be provided by the member states. Its rather vague provisions on the disclosure of due diligence processes implemented regarding the supply and subcontracting chains, the flexibility for companies provided by the safe harbour provision and the principle of comply-or-explain may reduce its effectiveness.

Political opportunities and good practice examples:

The Directive contains considerable political potential to address sustainable resource extraction and processing, primarily because it offers the opportunity to account for the economic and operational feasibility of compulsory disclosure obligations and allay concerns about inadequate financial or bureaucratic burdens of CSR-reporting. The possibility to apply and diffuse already existing effective methods for IT-based CSR-monitoring and risk management could for example help to increase the acceptance of compulsory reporting obligations.¹²³² This may favour political initiatives to expand the scope of non-financial reporting obligations, primarily within the leeway of the Directive.

The possibility of introducing an obligation requiring large companies to produce an annual country-by-country report containing certain non-financial information for each Member State and third country in which they operate according to Article 48 of the amended Accounting-Directive suggests prospects to improve transparency with respect to supply-chain management.

¹²³² See Grabosch (2015) at 28, with respect to IT-based supply-chain-management.

2.3.6 EU Conflict Minerals Regulation

Table 45: EU Conflict Mineral Regulation (17 May 2017)

Key aspects	Summary
Form and legal status	Binding and in force
Objectives	The Regulation establishes a system of supply chain due diligence obligations for European Union importers, smelters and refiners of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas
Parties	The Member States of the EU
Territorial scope	The obligations apply to economic operators importing the respective resources into the EU member States.
Resources covered	Tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas. Recycled and scrap materials are not included.
Stage of the value chain	The obligations concern the supply practices of European Union importers and of smelters and refiners sourcing from conflict-affected and high-risk areas
Steering tool	<ul style="list-style-type: none"> - Compliance with obligations regarding risk management, transparency and public reporting/ disclosure - Third party auditing - Public documentation/ information
Assessment	++

Summary

Regulation (EU) No 2017/821 of the European Parliament and of the Council of 17 May 2017 lays down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas¹²³³ (hereinafter referred to as “Conflict Mineral Regulation”) and sets out a system of due diligence obligations and mechanisms for the implementation of these obligations. It therefore defines a set of rules concerning public reporting by an economic operator on its supply chain due diligence policies and practices to provide transparency about its potential connection to the illicit extraction of and trade in minerals from conflict areas. It also comprises obligations of such operators to adopt risk management measures and to install third party auditing mechanisms on supply chain due diligence practices, as well as Member States’ commitments to provide the institutional prerequisites for the enabling and enforcement of the said obligations.

The Regulation is one element of a more comprehensive political dynamic to impose CSR obligations with respect to international trade and the exploitation of natural resources, initiated by the Dodd-Frank Act and the OECD Guidelines for Multinational Enterprises. It can be considered to constitute a notable evolution of the EU framework on CSR as it includes obligatory and enforceable rules.

However, its scope is still narrow: The Regulation addresses only Union importers of the respective minerals- importers of finished and semi-finished products are not included as addressees of its rules and obligation. It focuses on the social impacts of mining, while environmental impacts are at best addressed in a collateral manner. It is flexible with respect to the substantial design of the obligations

¹²³³ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0821&from=EN> (last accessed on 28.02.2019).

concerning risk management and transparency, as existing supply chain due diligence schemes can be recognized.

Overview

Form and legal status: The Conflict Mineral Regulation as an EU-Regulation is immediately binding as law in all EU Member States. It applies from 9 July 2017, although most of its substantial and procedural rules concerning the due diligence obligations enter into force on 1 January 2021 (Article 20(3)).

Objectives: The Conflict Mineral Regulation intends to “break the nexus between conflict and illegal exploitation of minerals” to help to safeguard human rights and guarantee peace, development and stability in those areas (see preamble (1), (2), (3)). The main objective of the Regulation therefore is to eliminate the financing of armed groups by controlling trade in minerals from conflict areas (preamble, para. 8) and to safeguard human rights.

Territorial scope: The rules and obligations of the Conflict Mineral Regulation apply to economic operators importing the respective resources into the EU (“Union importers”).

Links to extraction, processing and transport of resources

Resources covered: Tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas. Recycled materials are not included (Article 1(6)). The Regulation determines volume thresholds for each of the minerals in its Annex 1: Its rules and obligations do not apply to importers of annual volumes below certain amounts.

Environmental and social impacts covered: The Conflict Mineral Regulation addresses the social impacts of mining in conflict-affected and high-risk areas. Hence, it focusses social effects directly caused by violence and illicit mining: It aims to prevent human rights abuses, which are common in resource-rich, conflict affected and high-risk areas and may include child labour, sexual violence, the disappearance of people, forced resettlement and the destruction of ritually or culturally significant sites (preamble (3)).

Environmental aspects (and their human rights aspects), on the other hand, are at best addressed in a collateral manner, i.e. when referring to the „destruction of culturally and ritually important sites“(preamble (3)). However, obligations of disclosure and documentation could in general have positive indirect effects on the environmental impacts of the comprised metals: Illegal and unregulated mining under conditions of conflict and high-risk may be ecologically more detrimental than mining that meets certain criteria of responsible sourcing.

Steps of the value chain covered: The Regulation’s concept of supply chain due diligence addresses the whole “mineral supply chain” or chain of custody, i.e. the system of activities, organisations, actors, technology, information, resources and services involved in moving and processing the minerals from the extraction site to their incorporation in the final product (Art. 2(c)). The obligations of disclosure and documentation within the management system demand the operation of a chain of custody or supply chain traceability system that, for example, provides information about the mine of origin (Art. 2(f)(v)). The Regulation considers smelters and refiners to be an important stage in global mineral supply chains, as they are typically the last stage in which due diligence can effectively be assured by collecting, disclosing and verifying information on the mineral's origin and chain of custody. After this stage of transformation, it is often considered to be unfeasible to trace back the origins of minerals (preamble (16)).

Although the Regulation targets only selected minerals from conflict and high risk areas, the requirements to provide information and documentation apply to the comprised minerals, irrespective of their country of origin, as well as to “global responsible” smelters and refiners (see Article 4(f)). Additional obligations arise for minerals from conflict-affected or high-risk areas (see Article 4 (a), (f)(v)).

These are areas in a state of armed conflict or fragile post-conflict as well as areas witnessing weak or non-existent governance and security, such as failed states, and widespread and systematic violations of international law, including human rights abuses (Article 2(f)). A non-binding guideline prepared by the Commission shall provide criteria about how to identify such areas as well as an indicative, non-exhaustive, regularly updated list of conflict-affected and high-risk areas (Article 14).

As the obligations in the Regulation target only EU-importers of metals or minerals containing or consisting of the comprised resources, importers of finished and semi-finished products that first place component parts or finished products containing those materials on to the EU market are not subjected to the compulsory provisions.¹²³⁴

Content

Type of steering tool: The regulation features obligations of Union importers to establish risk management systems, independent third-party audits and a disclosure of information with a view to identifying and addressing actual and potential risks linked to conflict-affected and high-risk areas to prevent or mitigate adverse impacts associated with their sourcing activities. It relies on obligations to disclose and monitor, to “provide the necessary transparency to generate public confidence in the measures economic operators are taking” (Article 7; preamble (13)). Furthermore, it requires Member States to lay down the rules applicable to infringements of regulation (Article 16 (1)). It finally stipulates non-binding mechanisms, especially the establishment of non-binding guidelines in the form of a handbook for economic operators, explaining how best to apply the criteria to identify conflict-affected and high-risk areas (Article 14(1)).

Relevant obligations for parties: The Conflict Mineral Regulation prescribes the duty to disclose a series of information about the supply chain of the comprised resources (Article 4(f), (g)) and mechanisms of public reporting by economic operators on supply chain due diligence policies and practices (Article 7). For example, Union importers of minerals or metals shall, on an annual basis, publicly report as widely as possible, including on the internet, on their supply chain due diligence policies and practices for responsible sourcing.

Interested parties – governments, industry associations or groupings of interested organizations – having supply chain due diligence schemes in place, may submit these schemes for recognition by the Commission with a view to facilitating the compliance of Union importers with the relevant requirements of the Regulation.

It provides independent third-party audit obligations of an economic operator's supply chain due diligence practices, as these “ensure credibility for the benefit of downstream economic operators and contribute to the improvement of upstream due diligence practices” (Article 6; preamble (12)). Article 6 of the Regulation lays down substantive criteria for the third party-audit – for example, it should audit principles of independence, competence and accountability, as set out in the OECD Due Diligence Guidance.

The Regulation stipulates the establishment of grievance mechanisms as an early warning risk-awareness system through collaborative arrangements with other economic operators or organizations, or by facilitating recourse to an external expert or body, such as an ombudsman (Article 4 (e)) and a more general system of risk management obligations. The latter require to identify and assess the risks of adverse impacts in their mineral supply chain, to implement a strategy to respond the identified risks by reporting the findings to senior management designated for this purpose and to adopt risk management measures consistent with Annex II to the OECD Due Diligence Guidance, considering their ability to influence or exert pressure on suppliers to prevent the identified risk (Article 5(1)).

Finally, it prescribes the task of the Commission to adopt implementing acts establishing or amending a list of the names and addresses of global responsible smelters and refiners, i.e. smelters and refiners

¹²³⁴ Küblböck and Grohs (2017) at 3.

located inside or outside the Union that are deemed to fulfil the requirements of this Regulation (Article 2(1); Article 6).

The Regulation allows for the possibility for governments, industry associations or other groupings of interested organisations having supply chain due diligence schemes in place to apply to the Commission to have them recognised (Article 8); details being supplemented in a delegated act.

Institutions, reviews and decision-making

Institutions: The Commission – partially after consulting the OECD Secretariat (Article 8(3), Article 14(1)) – is the pivotal institution for comprehensive decisions concerning the Regulation, its substantial advancement and implementation (see Article 8, 9, 14, 16(2)).

It shall be assisted by an Advisory Committee that shall deliver its opinion on implementing acts by taking a vote, Article 4 of the Regulation (EU) No 182/2011 of 16 February 2011.

The national implementation of the Regulation, its application (Article 10(1)), ex-post control of its implementation (Article 11) and intergovernmental information exchange (Article 13) shall be conducted by competent authorities to be designated by each Member State.

Reporting: Annually, by 30 June, Member States shall submit to the Commission a report on the implementation of the Regulation (Article 17(1)).

Evaluation and review: The Regulation institutionalizes a mechanism of review by which – starting on 1 January 2023 – the functioning and effectiveness of its norms and procedures, its national implementation, effectiveness and its impacts on Union economic operators (including SMEs) shall be evaluated (Article 17(2)).

Compliance procedures, remedies and dispute settlement procedures: The effective and uniform implementation of this Regulation throughout the Union shall be provided by Member State competent authorities (Article 10(3)). This includes laying down rules applicable to infringement (Article 16(1)), which cover a wide variety of rules including sanctions. Based on an assessment of the regulation's implementation, the Commission may initiate a revision of Article 16 (1) to ensure authorities impose penalties upon Union importers in the event of persistent failure to comply with their obligations. The effective and uniform implementation of the regulation also includes ex-post checks to ensure that Union importers comply with the prescribed obligations, which shall be conducted based on a "risk-based" approach as well as in the case of concrete indications for infringement (Article 11(1), (2)) and include examination of the Union importer's implementation of supply chain due diligence obligations, examination of documentation and records that demonstrate the proper compliance with the obligations, examination of audit obligations and should include on-the-spot inspections (Article 11(3)).

Stakeholder and public involvement: Prominent stakeholders are the economic operators targeted by the prescribed obligations, as well as national governments, industry associations and civil society actors concerned with conflict minerals (see Article 8(1)). The OECD Secretariat is partially designated to be a consultative body (see Article 8(3)). Due to the possibility to submit existing supply chain due diligence schemes (Article 8), organisations that provide their own supply chain due diligence schemes may also be considered as stakeholders.

Preamble paragraph 10 asserts that Union citizens and civil society actors have requested – in particular through petitions – to the Commission to make a legislative proposal to hold economic operators accountable under the relevant guidelines established by the UN and OECD. As the Regulation **primarily relies on mechanisms ensuring transparency by public reporting and third party auditing, civil society and public involvement** may be considered to be important parameters for the effectiveness of the Regulation.

Assessment

Coherence with other international treaties and policies: The Regulation refers several times to the updated OECD Guidelines for Multinational Enterprises (see Article 8(3), (4), (5); Article 6(1)(d); Article 4(f)(v), preamble (4)). It also refers to the UN Guiding Principles on Business and Human Rights, to the UN Security Council Resolution 1952 (2010) targeting the Democratic Republic of Congo and its neighbours in Central Africa and mentions the Dodd-Frank Wall Street Reform and Consumer Protection Act (preamble (5)).

The Regulation prescribes consultation specifications between itself and the OECD Secretariat, for example with respect to the recognition of existing supply chain due diligence schemes (Article 8(3)) and thereby institutionalizes mechanisms to establish coherence with the OECD rules on the matter.

Political weight of the instrument: The Regulation establishes a compulsory framework for supply chain due diligence systems which, so far, have been voluntary. Its provisions are binding for EU Member States which, contrary to the case of EU directives, leaves less flexibility for its implementation. It therefore may gain considerable political weight. The political importance of the Regulation also follows from its considerable integration: the global scope of its concepts may generate synergies and increase the significance of the issue of conflict minerals and supply chain due diligence.

On the other hand, the scope of the Regulation is limited: It applies to a very limited number of different minerals and an equally narrow scope of countries of origin. Importers of annual amounts below certain thresholds are not addressed by its rules of obligations (see Annex 1 of the Regulation).¹²³⁵ For this reason, only certain constellations and contexts of human rights violations caused by the sourcing of natural resources are covered. **Ecological impacts of mining** (and consequential social consequences) equally **remain outside of its scope**. The weight of the Regulation is decreased by its exclusive focus on EU-importers of conflict minerals, while end-user companies that first place component parts or finished products containing those materials on the EU market are not subjected to the compulsory provisions.¹²³⁶

Consideration of small and medium-scale companies: The Regulation considers the impact on small scale and medium scale companies when it lays down the duty of the Commission to review the cost of responsible sourcing and third-party auditing, the administrative consequences of such sourcing and auditing and their potential impact on competitiveness, in particular that of small and medium-sized enterprises (preamble (15), (24); Article 17(2)). The regime considers the situation of smaller enterprises indirectly by stipulating that it shall not apply to Union importers of minerals or metals where their annual import volume of each of the minerals or metals concerned is below the volume thresholds (set out in Annex I of the Regulation) (Article 1(3)).

Effectiveness – if data are available: Due to the recent adoption of the Regulation, no data are available so far to assess the effectiveness of its instruments. The empirical effects of the disclosure duties, supply chain due diligence schemes and risk management obligations on local practices at the extraction sites, thus remain to be seen. From a provisional perspective, it can be assumed, that its direct applicability may increase the effectiveness of the provisions of the Regulation. On the other hand, the scope of the Regulation is narrow: It applies to a very limited number of different minerals and to an equally narrow scope of countries of origin. Importers of annual amounts below certain thresholds are not addressed by its rules of obligations (see Annex 1 of the Regulation).¹²³⁷ For this reason, only certain constellations and contexts of human rights violations caused by the sourcing of natural resources are covered. **Ecological impacts of mining** (and consequential social consequences) equally **remain outside**

¹²³⁵ See Joint Civil Society Briefing (2014), p. 2

¹²³⁶ For an Overview of the critique of Civil Society Organizations see Heinrich Böll Stiftung, <https://www.boell.de/de/2017/06/07/eu-konfliktmineralien-verordnung-tritt-kraft-breites-buendnis-der-zivilgesellschaft> (last accessed on 28.02.2019).

¹²³⁷ See Joint Civil Society Briefing, p. 2

of its scope. The weight of the Regulation is also decreased by its exclusive focus on EU-importers of conflict minerals, while end-user companies that first place component parts or finished products containing those materials on the EU market are not subjected to the compulsory provisions.¹²³⁸

Political opportunities and good practice examples:

The existence of a legally binding framework of supply chain due diligence may provide a range of political opportunities: It may be seen as an example of feasibility and practicability of systems of supply chain due diligence and accountability of transnational economic actors and might, therefore, feature opportunities to widen its scope of application.

2.3.7 EU Renewable Energy Directive

Table 46: EU Renewable Energy Directive (23 April 2009)

Key aspects	Summary
Form and legal status	Binding and in force since 2009
Objectives	Promotion of the use of energy from renewable sources
Parties	EU Member States
Territorial scope	Global (biomass produced in Germany, EU and elsewhere)
Resources covered	All types of liquid and gaseous biomass, among others palm oil, soybean oil and rape seed oil, biodiesel, vegetable oil fuel, bioethanol, biomethanol and biomethane
Stage of the value chain	All operations at all stages of the entire production and supply chain (from the farmer to the network operator and installation operator in the field of bioelectricity)
Steering tool	Economic instrument (quotas)
Assessment	+

Summary

The Renewable Energy Directive 2009/29/EU (RED)¹²³⁹ follows a dual objective of increased security of energy supply and reduced GHG emissions through replacing fossil fuel with renewables. To this aim, it sets specific and varying targets for the EU Member States. In order to reach their national targets Member States may implement domestic support schemes (including investment aid, tax exemptions or reductions, tax refunds) as well as direct price support schemes (including feed-in tariffs and premium payments). RED contains a set of sustainability criteria to ensure that the use of biofuels (used in transport) and bioliquids (used for electricity and heating) is done in a way that guarantees real carbon savings and protects biodiversity. Only biofuels and bioliquids that comply with the criteria can receive government support or count towards national renewable energy targets. This is the case for raw materials irrespective of whether it is cultivated inside or outside the territory of the

¹²³⁸ For an overview of the critique of Civil Society Organizations see Heinrich Böll Stiftung, <https://www.boell.de/de/2017/06/07/eu-konfliktmineralien-verordnung-tritt-kraft-breites-buendnis-der-zivilgesellschaft> (last accessed on 28.02.2019).

¹²³⁹ Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, OJ L 140, 5.6.2009, p. 16–62.

Community. Biomass covered by RED comprises all types of liquid and gaseous biomass, among others: palm oil, soybean oil and rape seed oil, biodiesel, vegetable oil fuel, bioethanol, biomethanol and biomethane.

Overview

Form and legal status: Directive 2009/29/EU is binding for all Member States and in force since 2009. Directives, as legal acts of the European Union, are binding for the addressed Member States (normally all Member States) in their objectives, but leave the states with a discretion as to the exact rules to be adopted. The Directive was transposed to German law by the Biofuel Sustainability Ordinance (Bio-kraft-NachV) which entered into force on 2 November 2009. It is legally based on the Federal Energy Tax Act (EnergieStG) and on the Federal Emission Control Act (BImSchG).

Objectives: The Renewable Energy Directive 2009/29/EU pursues a dual objective of increased security of energy supply and reduced GHG emissions through replacing fossil fuel with renewables. In this aim the Directive differs from previous directives as it introduces legally binding targets for renewable energy at the EU level. The targets are country-specific for each EU Member State for the overall share of energy that has to come from renewable sources by 2020 increasing in several steps until 2020 and varying widely between Member States. However, the EU average of 20 % should be reached compared to 1990 levels regarding the energy used for electricity generation, heating and cooling and transport (Article 3 (1) RED). For transport the Directive sets a mandatory target of a 10 % share of renewable energy for each Member State (Article 3 (4) RED). In promoting energy from renewable sources sustainability criteria for biofuels and bioliquids have to be met (Article 1 RED).

Territorial scope: The RED covers raw materials irrespective of whether it is cultivated inside or outside the territory of the Community. This is due to the fact that Member States are only allowed to measure compliance with national targets under RED or to measure compliance with renewable energy obligations and, moreover, to support the consumption of biofuels and bioliquids financially, if the raw material used complies with the sustainability criteria set out in the RED.

Links to extraction, processing and transport of resources

Resources covered: RED applies to all types of liquid and gaseous biomass, among others palm oil, soybean oil and rape seed oil, biodiesel, vegetable oil fuel, bioethanol, biomethanol and biomethane.

Environmental and social impacts covered: RED does contain two binding environmental criteria for renewable energy: GHG-emissions savings and land-use. The need for binding criteria on GHG-emissions savings is due to the fact that the production and processing of biofuel is not emission-free and emissions could reach levels similar to those associated with the use of fossil fuel. Therefore RED sets thresholds for the percentage reduction of GHG emissions generated through the use of a specific biofuel instead of a fossil fuel, i.e. a minimum savings rate of 35 % applies initially which increases to 60 % by 2018. With respect to land-use three criteria for the land from which the feedstock for the biofuel originates are defined in Article 17 (3) to (5) RED:

- ▶ Biofuels shall not be made from raw material obtained from land with high biodiversity value, which includes primary forest and other wooded land, areas designated for nature protection or the protection of rare, threatened or endangered ecosystems or species, and highly biodiverse grasslands.
- ▶ Biofuels shall not be made from raw material obtained from land with high carbon stock, namely wetlands, continuously forested areas, or land spanning more than one.
- ▶ Biofuels shall not be made from raw material obtained from peatland, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.

However, the sustainability criteria do not guarantee that there are no indirect effects of the policy, for example indirect land-use change (ILUC).

Social issues are covered by RED, but not as mandatory requirements, but rather as an accompanying monitoring of increased demand for biofuel on food prices and “wider development issues”. To this aim the Commission has to monitor the potential social impact of biofuel production in source countries and shall state whether source countries have ratified and implemented certain International Labour Organization (ILO) conventions, the Cartagena Protocol on Biosafety and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (Art. 17 (7) RED). The inclusion of mandatory social criteria in the Directive has been discussed, but their inclusion was rejected.

Steps of the value chain covered: RED requires that all life cycle emissions are taken into account when calculating greenhouse gas savings, including emissions from cultivation, processing, and transport. Consequently the Directive covers the whole value chain from the cultivation of biomass plants; the reduction of GHG emissions takes the whole value chain into consideration.

Content

Type of steering tool: Economic instrument to promote the use of energy from renewable sources.

Relevant obligations for parties: Member States are obliged to set mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport (Article 3 RED).

In order to reach their national targets Member States may, implement domestic support schemes “that promote the use of energy from renewable sources by reducing the cost of that energy, increasing the price at which it can be sold, or increasing, by means of a renewable energy obligation or otherwise, the volume of such energy purchases”. These support schemes can include, amongst others, financial means such as “investment aid, tax exemptions or reductions, tax refunds, [...], and direct price support schemes including feed-in tariffs and premium payments”.

Germany has chosen to set specific targets for the share of fuels from renewable sources that apply to all fuel providers. Accordingly, every provider that brings fuel into circulation has to mix the regular fuel with a certain amount of biofuel in order to achieve a specific proportion for petrol and diesel.

However, the EU has defined a set of sustainability criteria to ensure that the use of biofuels (used in transport) and bioliquids (used for electricity and heating) is done in a way that guarantees real carbon savings and protects biodiversity. Only biofuels and bioliquids that comply with the criteria can receive government support or count towards national renewable energy targets. This is the case for raw materials irrespective of whether it is cultivated inside or outside the territory of the Community. According to Article 17(2) to (6) RED the following sustainability criteria must be met:

- ▶ the greenhouse gas emission saving from the use of biofuels and bioliquids must meet increasing minimum level starting from 35 %, 50 % (2017) to 60 % (2018);
- ▶ biofuels and bioliquids shall not be made from raw material obtained from land with high biodiversity value (e.g. primary forests or highly biodiverse grassland);
- ▶ biofuels and bioliquids shall not be made from raw material obtained from land with high carbon stock (e.g. wetlands); and
- ▶ biofuels and bioliquids shall not be made from raw material obtained from land that was peatland in January 2008.

One way for companies to demonstrate that their biofuels and bioliquids comply with the criteria is to participate in voluntary schemes that have been recognised by the European Commission (Article 18 RED). Those schemes are mostly privately run and they certify the whole production chain from the

farmer growing the feedstock up to the biofuel producer or trader is checked by independent auditors. Thus they check that the sustainability criteria of RED are met.

Institutions, reviews and decision-making

Institutions: National Governments setting rules in order to achieve their national targets.

Reporting: The Commission reports every two years to the European Parliament and the Council, in respect of both third countries and Member States that are a significant source of biofuels or of raw material for biofuels consumed within the Community, on national measures taken to respect the sustainability criteria set out in Article 17 (2) to (5) and for soil, water and air protection.¹²⁴⁰

Moreover the EU Commission has to report biennial to the European Parliament and the Council on the Directives impact on social sustainability in the Community and in third countries of increased demand for biofuel, on the impact of Community biofuel policy on the availability of foodstuffs at affordable prices, in particular for people living in developing countries, and wider development issues. Reports shall address the respect of land-use rights. They shall state, both for third countries and Member States that are a significant source of raw material for biofuel consumed within the Community, whether the country has ratified and implemented ILO Core Labour Standards.

Finally, the Commission shall monitor the origin of biofuels and bioliquids consumed in the EU and the impact of their production, including impact as a result of displacement, on land use in the Community and the main third countries of supply.¹²⁴¹

Evaluation and review: The EU has committed itself in the Paris Agreement to a renewable energy target of 27 % by 2030. According to energy system projections the current Member States and EU policies, if no new policies are put in place, would only lead to, approximately, 24.3 % of renewable energy consumption in 2030. In order to reach the EU level target of 27 % RED was reviewed and a new proposal was made in 2017.¹²⁴²

Compliance procedures, remedies and dispute settlement procedures: compliance procedures according to the TFEU.

Stakeholder and public involvement: Engagement in the legislative process of the Directive and national implementation regulations.

Assessment

Coherence with other international treaties and policies: RED is consistent with the Market Design and Energy Union Governance as well as with the Energy Efficiency and Energy Performance of Buildings Directives, the EU ETS proposal of July 2015 and the proposed Effort Sharing Regulation, the Land Use, Land Use Change and Forestry Regulation (LULUCF) of July 2016.

Most important the EU shall take care that sustainability criteria in bilateral or multilateral agreements with third countries correspond to those set out in Article 17(2) to (5) RED. Where the Community has concluded agreements containing provisions relating to matters covered by the sustainability criteria, the Commission may decide that those agreements demonstrate that biofuels and bioliquids produced from raw materials cultivated in those countries comply with the sustainability criteria in question. When those agreements are concluded, due consideration shall be given to measures taken for the conservation of areas that provide, in critical situations, basic ecosystem services (such as watershed protection and erosion control), for soil, water and air protection, indirect land-use changes,

¹²⁴⁰ cf. Art. 17(7) RED.

¹²⁴¹ cf. Art. 23 (1) RED.

¹²⁴² Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources (recast), COM/2016/0767 final - 2016/0382 (COD).

the restoration of degraded land, the avoidance of excessive water consumption in areas where water is scarce and to the issues referred to in the second subparagraph of Article 17(7).¹²⁴³

Commission reporting under the RED Directive shall take into consideration if countries have signed the Conventions of the International Labour Organisation, Cartagena Protocol on Biosafety, the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

Political weight of the instrument: The political weight of the instrument is enormous given that the European Union pursues several ambitious policy targets in the renewable energy sector (including biomass), i.e. has committed itself to binding targets for renewable energy at the EU level in order to meet its obligations under the Paris Agreement, sees renewable energies as a pillar of security of energy supply and intends to make the European Union the world number one in renewables. This is reflected by the type and variety of support schemes Member States can choose from to increase the share of renewable energy which has led to a strong market pull for renewables (e.g. the setting of specific targets for the share of fuels from renewable sources that apply to all fuel providers in Germany). Simultaneously, RED calls for hard environmental criteria to ensure that the biomass is sustainable (like minimum-levels of GHG-emissions or restrictions on biomass from valuable land). The economic and ecological steering effect of the RED, worldwide, follows from the applicability of its sustainability criteria irrespective of whether the biomass is cultivated inside or outside the territory of the Community.

Consideration of small and medium-scale companies: RED recognizes that the production of energy from renewable sources often depends on local or regional small and medium-sized enterprises (SMEs). The opportunities for growth and employment that investment in regional and local production of energy from renewable sources bring about in the Member States and their regions are important. The Commission and the Member States shall therefore support national and regional development measures in those areas, encourage the exchange of best practices in production of energy from renewable sources between local and regional development initiatives and promote the use of structural funding in this area.¹²⁴⁴

Effectiveness – if data are available: The effectiveness of the RED can be measured against its aims:

- ▶ to replace fossil fuel with renewables on the EU average of 20 % in 2020 compared to 1990 levels regarding the energy used for electricity generation, heating and cooling and for transport a mandatory target of a 10 %;
- ▶ to ensure that the use of biofuels (used in transport) and bioliquids (used for electricity and heating) is done in a way that guarantees real carbon savings and protects biodiversity: the greenhouse gas emission saving from the use of biofuels and bioliquids must meet increasing minimum level starting from 35 %, 50 % (2017) to 60 % (2018) and land-use criteria must be met.

Looking at the results for replacing fossil fuels with renewables with a 16 % share in final energy consumption in 2014, the EU and the vast majority of Member States are well on track in terms of renewable energy deployment. According to projections the EU as a whole would reach its 20 % target by 2020. In contrast to that RED has not been very effective in the transport sector which continues to show the slowest growth of renewables, with 0.5 percentage points on average per year from 2005-2014 and a marked slowdown after 2011. Its renewable energy share was 5.9 % in 2014 (and estimated at only 6.0 % in 2015).¹²⁴⁵

Measuring the effectiveness of the RED in achieving its binding environmental criteria for renewable energy it can be stated for:

¹²⁴³ cf. Art. 18 (4) RED.

¹²⁴⁴ cf. Remark 3 RED.

¹²⁴⁵ EU Commission (2017), p. 17.

- ▶ **GHG-emissions savings:** As the impacts on climate change of solid and gaseous biomass used for heat and electricity are complex they can vary significantly (from very positive to very negative impacts, i.e. reducing or increasing emissions compared to fossil fuels). Currently, the majority of the solid biomass used for energy purposes in the EU can be considered to deliver substantial greenhouse gas benefits even when taking into account biogenic emissions. This is because the forest biomass that is used consists mostly of industrial residues as well as harvest residues (branches, tree tops) and traditional fuel wood.¹²⁴⁶
- ▶ **Land-use:** The majority of biofuels consumed in the EU are produced within the Union from domestic feedstock. No significant direct adverse effects on biodiversity, soil and water, food security nor on developing countries have been identified. However, risks of indirect land use change impacts remain of concern.¹²⁴⁷

As social issues are not mandatory under RED, but rather as an accompanying monitoring of increased demand for biofuel on food prices and “wider development issues” the effectiveness of the RED cannot be expected to be high.

Political opportunities and good practice examples: -/-

2.3.8 Overall assessment of national and European law

The majority of the observed legislation does not explicitly address the extraction of abiotic raw materials as well as their further processing and transport. However, the Conflict Mineral Regulation explicitly regulates abiotic raw materials besides the French corporate duty of vigilance law which does implicitly address minerals. Nevertheless, the analysed legislation shows that environmental and social aspects are of importance for a great variety of products and services at national level (in the US, France and Germany) and at supra-national level.¹²⁴⁸

The analysis shows a wide variety of governance mechanisms to promote the environmentally and socially acceptable consumption of products and the raw materials needed to produce them. Instruments used to this aim are ranging from:

- ▶ informative instruments like public reporting and disclosure duties which are part of the EU CSR-Directive, French corporate duty of vigilance law and the EU Conflict Mineral Regulation;
- ▶ access to remedy and civil liability for violations against human rights and compensation for environmental damage concerning the extraction, treatment, transport and processing of abiotic raw materials are regulated in the US Alien Tort Statute and the French corporate duty of vigilance law;
- ▶ economic instruments that promote the compliance with social and environmental standards for the cultivation of certain biotic raw materials, their processing and transport in the case of timber and timber products (EU Timber Regulation) as well as in the case of liquid and gaseous biomass (EU Renewable Energy Directive) and finally for all products in general purchased by public authorities (EU Public Procurement Directive); and
- ▶ regulatory instruments, like the ban on the marketing of illegally harvested timber

An underlying problem which the majority of instruments face is the complexity of the value chain and thus problems with the transparency and responsibility for violations against human rights and damage to the environment. The extraction of abiotic raw materials, their processing and transport takes place outside the EU by international or multi-national companies, who are only partly based in the

¹²⁴⁶ EU Commission (2016).

¹²⁴⁷ EU Commission (2017), p. 18

¹²⁴⁸ Timber Regulation (EU) No 995/2010, EU Public Procurement Directive 2014/95/EU, the Renewable Energy Directive 2009/28/EU.

EU. The products put on the market in the EU consist of multiple components produced all over the world and are either assembled in the EU or imported to the EU. The observed legislation tries to address the complexity by holding EU-based companies responsible to implement due diligence processes including information on processes implemented in their supply and sub-contracting chains (for example the EU CSR Directive and the EU Conflict Mineral Regulation). However, it can be questioned how far EU-based companies producing highly complex consumer products are able to control their supply chain further than tier 1 (for example tier 2 and 3).

It is remarkable that for two types of biotic biomass (timber and timber products as well as for liquid and gaseous biomass) legislation regulating environmental criteria for the production and processing exists. One possible reason for that might be that the value chain for timber and timber products as well as for liquid and gaseous biomass is less complex than that for (consumer) products based on abiotic raw materials. Furthermore, another major driver for the implementation of specific regulations was public pressure in the EU due to negative effects in the production of these products (deforestation of rainforest and food shortage).

The EU CSR-Directive is exemplary for a transparency-focussed approach to regulatory policies. It is credited with a paradigm-shift, as it, for the first time, introduces compulsory disclosure obligations and shall provide transparency not only for investors, owners or obligees of the respective company, but also for third parties and the public. For these reasons, the directive could – despite certain shortcomings – be a starting point for effective regulatory policies concerning the extraction, processing and transport of abiotic raw materials, too.

The EU Conflict Mineral Regulation laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas – in a partly comparable way as the CSR-Directive – lays down a compulsory framework concerning public reporting and corporate self-control. Unlike the CSR-Directive, the Regulation explicitly focusses supply-chain due diligence with respect to certain problematic minerals. Because of its concentration on due diligence practices along the supply chain of specific resources it could serve as a blueprint for sustainability-oriented policies on further abiotic raw materials. The empirical effects of the disclosure duties, supply chain due diligence schemes and risk management obligations on local practices at the extraction sites, remain to be seen. From a provisional perspective, it can be assumed, that its direct applicability may increase the effectiveness of the provisions of the Regulation. On the other hand, the scope of the Regulation is narrow: It applies to a very limited number of different minerals and to an equally narrow scope of countries of origin. Importers of annual amounts below certain thresholds are not addressed by its rules of obligations (see Annex 1 of the Regulation). For this reason, only certain constellations and contexts of human rights violations caused by the sourcing of natural resources are covered. Ecological impacts of mining (and consequential social consequences) equally remain outside of its scope. The weight of the Regulation is also decreased by its exclusive focus on EU-importers of conflict minerals, while end-user companies that first place component parts or finished products containing those materials on the EU market are not subjected to the compulsory provisions.

The EU Procurement Directive offers possibilities to address environmental and social aspects along the life-cycle of products purchased by the EU Member States. Efficiency targets for environmental reasons are not foreign to public procurement law. The law explicitly provides for energy efficiency requirements for energy-related supplies or services. Here, the energy efficiency may for example be specified by energy efficiency class according to the Energy Labelling Regulation. Resource conservation aspects are already finding favour in these regulations, e.g. Life cycle costs can be included in the award criteria. However, it is hypothesized that procuring authorities will only demand responsible mining and processing of raw materials used in the products to be procured in procurement practice if they have clear (binding) legal requirements. For such a legislation appropriate criteria to identify and assess improved resource conservation must be developed. Another prerequisite for the consideration

of environmental and social aspects in public procurement is the implementation of appropriate local sustainability standards (for example CTC and TSM, see Section 2.4) for the extraction and processing of abiotic raw materials as well as the monitoring of their compliance.

The US Alien Tort Statute and the French corporate duty of vigilance law provide the possibility to enforce human rights and environmental standards established by international law directly against private defendants through domestic civil litigation. Thus access to remedy and civil litigation against violations taking place in the extraction, treatment, transport, and processing of abiotic raw materials are covered. As such the Alien Tort Statute and the French corporate duty of vigilance law could serve as example for the German Government to develop a legal framework that allows access to remedy and civil liability claims by victims of human rights and environmental damages in third countries caused by German companies. Such a legal framework would help to enforce the third pillar of the UN Guiding Principles on Business and Human Rights (Ruggie-principles), which addresses “access to remedy”, although it refers to conduct that occurs within the respective territory and/or jurisdiction. Moreover, it is consistent with international law, which in principle gives wide discretion to states to apply their laws extraterritorially. However, it needs to be researched how such an approach could be implemented in German law and how the political enforceability could be promoted – Germany amongst all other EU-States, the US and Great Britain in 2014 have voted against a binding international agreement on transnational corporations and human rights to be developed by the UNO.¹²⁴⁹ Another major obstacle to such an approach is and remains from a legal point of view, that human rights standards which apply to business companies are neither binding nor enforceable.

The following table gives an overview on main characteristics of the legislations analysed:

¹²⁴⁹ See the results on “Second session of the open-ended intergovernmental working group on transnational corporations and other business enterprises with respect to human rights” at <http://www.ohchr.org/EN/HRBodies/HRC/WGTransCorp/Session2/Pages/Session2.aspx> and <https://www.humanrights.ch/de/menschenrechte-themen/tnc/nachrichten/uno-arbeitsgruppe-abkommen-tnc-menschenrechten> (last accessed on 28.02.2019)

Table 47: Overview of main characteristics of the legislation analysed

Legislation	Objectives	Territorial Scope	Resources covered	Stage of value chain	Steering mechanism
EU Conflict Minerals Regulation	Supply chain due diligence obligations for importers, smelters and refiners of specific metals and ores originating from conflict-affected and high-risk areas	Economic operators importing into the EU	Tin, tantalum and tungsten, their ores, and gold	Supply practices of European Union importers and of smelters and refiners sourcing from conflict-affected and high-risk areas	Compliance with risk management and public reporting/ disclosure Third party auditing; Public documentation and information
EU CSR-Directive	Setting rules for large public-interest entities on the disclosure of social and environmental information in their annual reports	EU-based companies and third countries in which they operate; With limitations supply and sub-contracting chains	No specification	Whole supply chain (supply and sub-contracting chains)	Compliance with transparency and public reporting/ disclosure; Third party auditing; Public documentation and information
French corporate duty of vigilance law	Vigilance duty of parent companies and ordering companies for their subsidiaries, subcontractors and suppliers in order to prevent serious harm to human rights or to the environment, obtain compensation for the victims of such harm	French territory and beyond	No specification, but mining implicitly targeted	All stages	Planning, information, regulatory and procedural

Legislation	Objectives	Territorial Scope	Resources covered	Stage of value chain	Steering mechanism
US Alien Tort Statute	Allow claims in US courts against US and foreign defendants (including private ones) for alleged violations of modern-day customary international law in other countries (including human right standards)	Global	All	All stages	Access to court and civil liability
EU Public Procurement Directive	Enables public authorities to buy environmentally sustainable, socially responsible and innovative goods/ services	EU Member States and beyond	No specification; Potentially any resource that is linked to subject matter of the purchased good or service (including minerals)	Offers the possibility to demand standards for whole value chain	Economic instrument. Setting environmental and social conditions which the procured products/services have to comply with.
EU Timber Regulation	Fight against illegal logging and related trade	Internal European market; implications for country of harvest	Timber and timber products	Whole supply chain	Prohibits marketing of illegally harvested timber; Due diligence system of operators
EU Renewable Energy Directive	Promotion of the use of energy from renewable sources	Global (biomass produced in Germany, EU and elsewhere)	All types of liquid and gaseous biomass,	Entire production and supply chain	Economic instrument (quotas)

2.4 Case studies on experience with implementation of instruments

2.4.1 Certified Trading Chain (CTC) in the Democratic Republic of Congo

Since 2009, the Democratic Republic of the Congo (DRC) and the neighbouring countries in the Great Lakes region are obligated to establish a system to avoid conflict minerals entering the international market. In this context, different mandatory and voluntary approaches have been developed, becoming directly intertwined. The DRC established - supported by the Federal Institute for Geosciences and Natural Resources (BGR) – a mandatory certification system based *inter alia* on a model developed by BGR: the Certified Trading Chain (CTC). In contrast to other traceability and due diligence schemes, CTC is not limited to conflict, but to a basic set of principles of social and environmental standards aiming to improve the mining process and production methods.

2.4.1.1 Background of conflict minerals

Supply chain due diligence implementation in the Great Lakes Region and in particular in the DRC has been approached from two different angles: one industry led - approach and one implemented by governments. While due diligence and compliance with international legal requirements are mainly responsibilities of companies, governments are responsible to oversee and regulate the mine sites in their countries, as well as to foster stability and economic development.

The underlying assumption of the different regulations, guidelines and traceability systems is that mineral trade fuels armed conflict as illegal taxation of mine sites and subsequent trade are important sources of income for armed groups in the Eastern provinces of the DRC.¹²⁵⁰ By eliminating trade of these conflict-financing minerals and by ensuring that due diligence is implemented along the supply chain, an important source of funding of armed groups will be cut off.¹²⁵¹

According to a survey by the Belgian NGO IPIS (2009-2010) 57% of tin, tungsten and tantalum mines (3T) in Eastern DRC were controlled by armed groups. The latest report from the UN Expert Group on the illegal exploitation of raw materials in the DRC (2016) states that the reduction of militarisation of mine sites has been partially achieved. By 2015 “only” 26% of the 3T mines were militarised. While the share of conflict-financing 3T mines is declining, there is a shift towards gold and other commodities being illegally traded.¹²⁵² According to a study by IPIS (2016), 61% of gold mine sites in East DRC are militarized. The UN Group of Experts therefore calls for, in addition to the 3T minerals, the establishment of a secure system of traceability and due diligence for gold in order to prevent non-conflict gold from entering the international supply chain.

2.4.1.2 International and Regional Framework Conditions

Dodd Frank Act

Implementation of certification and due diligence measures in Africa’s Great Lakes Region has been substantially influenced by a US regulation, the Dodd-Frank Act (DFA), Section 1502 on conflict minerals (2010). Section 1502 specifically refers to the supply chains of tin, tantalum, tungsten and gold (3TG) and their derivatives. It requires all companies listed in the USA to report publicly on their due diligence and to have their reports independently audited. In 2012, the Security and Exchange Commission (SEC) published the corresponding regulations for implementation recognising the OECD

¹²⁵⁰ Nobody is claiming that the issue of conflict minerals would settle the conflict in the area. Nevertheless there is an ongoing debate about whether the international focus on conflict minerals reduces needed efforts for a broader approach towards peace building, BICC (2015).

¹²⁵¹ Although these activities represent but one of income sources of armed and criminal groups in the Eastern DRC.

¹²⁵² Commodities (mainly wood and ivory) worth 0.7 to 1.3 billion US \$ are smuggled every year from the east of the DRC to the neighbouring countries, OECD (2016).

Guidance Due Diligence Guidance as the international framework for due diligence measures undertaken by companies that are required to file a conflict minerals report under its final rule. The reporting period started in January 2013.

OECD Due Diligence Guidance

The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance, see also Section 2.2.1.1) refers to the responsibility of companies to respect human rights and avoid contributing to conflict through their mineral and metal production and through their procurement practices. The concept was developed through an international multi-stakeholder consultation process and adopted in 2011 (the 3rd edition of the revised guidance has been published 2016) and recommends a five-step risk based framework to manage conflict risks in the supply chain. In contrast to DFA, the OECD Guidance is adaptable to all minerals not just 3TG and does not limit its scope to the Great Lakes Region. The five steps comprise establishment of an internal management system, risk identification and response strategies to identified risks, third party audits and public reporting procedures¹²⁵³. Based on the OECD Guidance, the China Chamber of Commerce of Metals, Minerals and Chemicals Importers & Exporters (CCC MC) adopted similar guidelines in December 2015 for Chinese companies working overseas.

Table 48: OECD Guidance: Five Step Framework

OECD Guidance: Five Step Framework	
Company management system	Development and adaptation of company policy for the supply chain of minerals Establishment of a company managements systems
Risk Assessment	Identification and assessment of risks in the supply chain Assessment against policy standards
Risk Response	Development of risk management plan in relation to policy and assessment, including risk mitigation measures Indication of progress
Third Party Audit	Third- party audit of supply chain due diligence at identified points, institutionalised verification
Reporting	Publication of report on supply chain due diligence practices

Source: Based on OECD (2016a)

Conflict regulation of the European Union

The EU adopted its Conflict Minerals Regulation in 2017 (see for more information Section 2.3.6). It will take effect on 1 January 2021 to give companies an appropriate amount of time to adapt to the new rules. While the EU relates to the same minerals as Dodd Frank Section 1502 it follows the OECD provision on conflict-affected and high risks areas. In contrast to DFA the EU regulation applies only directly to some 600 to 1,000 EU-based importers of tin, tantalum, tungsten and gold, whether these are in the form of mineral ores, concentrates or processed metals.

Although the Dodd Frank Act and the EU regulation are compulsory they refer to the multi-stakeholder based OECD Guidance as a standard for implementation.¹²⁵⁴ The OECD Guidance is a living document in the sense that it is subject to revision and improvements. Currently the OECD is conducting an align-

¹²⁵³ Schütte et al. (2015).

¹²⁵⁴ The EU regulation directly refers to the OECD Guidance in its second version from 2013.

ment assessment looking into five different initiatives addressing conflict minerals (CFSI, iTSCi, London Bullion Market Association (LBMA), Responsible Jewellery Council (RCJ) and Dubai Multi Commodities Centre). During the alignment assessment areas of improvement will be defined. As a third version of the OECD Guidance has already been adopted, it remains unclear how modifications of the OECD Guidance will relate to the compulsory regulations of the Dodd Frank Act and the EU.

Regional framework: International Conference on the Great Lakes Region

The Great Lakes Region encompasses eleven countries, some of which have been actively involved or have been affected by the armed conflict in the eastern DRC over the last thirty years. In an attempt to support regionally owned peace initiatives and to improve security, the governments created the International Conference on the Great Lakes Region (ICGLR) establishing the Pact on Security, Stability and Development for the Great Lakes Region in 2006. The Pact recognizes the development potential of mining activities and in particular the importance of the ASM sector but realises as well the risks for mining to directly or indirectly contribute to conflict financing and human rights violations. ICGLR states that “The key problem of this predicament is the missing linkage between the supply chain of natural resource and the formal economy of the ICGLR Member States. The exploitation and trade within the region are all too frequently conducted illegally. Consequently, the wealth deriving from natural resources is very unequally distributed and often finances rebel activities which further destabilises the region”.¹²⁵⁵

To promote positive impacts of mining and minimise adverse effects the governments endorsed a Regional Initiative against the Illegal Exploitation of Natural Resources (RINR)¹²⁵⁶, as a centrepiece of the Pact in 2010. The Lusaka Declaration signed by the Heads of State of the ICGLR in December 2010 states the processes and standards of the OECD Guidance will be integrated into the six tools of RINR including the Regional Certification Mechanism (RCM), which is one of the six RINR tools. By designing the structure and procedures of RCM, the ICGLR and international donors assumed that the certificate integrated sufficient control mechanisms for international mineral companies and particularly smelters to accept the ICGLR certificate as proof that required due diligence has been performed and that it would be sufficient to meet reporting requirements by DFA and others.

Other Certification Schemes

In the run-up to the OECD guidance some large electronic industry associations started their own due diligence efforts organizing themselves in the Responsible Minerals Assurance Process (RMAP) – formerly Conflict-Free Smelter Program (CFSP).¹²⁵⁷ The RMAP/CFSP scheme certifies tin, tantalum, and tungsten smelters and processors as conflict-free based on the outcomes of third-party audits. Downstream companies can trace their supply chains back to conflict-free smelters. CFSP aligned itself with iTSCi. The latter was initiated by ITRI (a tin industry association) in response to recommendations by the UN Group of Experts on the DRC on performing due diligence on 3T supply chains (e.g., UN 2008). US based organisation, PACT, is responsible for implementation in conjunction with the different national mining authorities.

After a pilot phase iTSCi has continuously expanded its activities now operating in several countries of the region including the Eastern DRC. The biggest coverage they have is in Ruanda where in coopera-

¹²⁵⁵ ICGLR (2014).

¹²⁵⁶ The six instruments of RINR are: 1. Regional Certification Mechanism, 2. Harmonisation of national legislation, 3. Regional database on mineral flows, 4. Formalisation of ASM, 5. EITI Peer Learning Mechanism and 6. Whistle-blowing mechanism.

¹²⁵⁷ CFSP has recently been „upgraded“ to the „responsible minerals assurance process“ within the “responsible minerals initiative” and announced to broaden its scope to other sustainability issues beyond illegal conflict financing.

tion with Rwandan mining authorities they certify almost a 100% of 3T exports. While at the beginning iTSCI was a mere traceability scheme, it now evolved in accordance with the OECD Guidance to a due diligence scheme incorporating the basic requirements for responsible sourcing.

In consequence, several elements of RCM and iTSCI overlap including mine inspections, database management and third party audits. Even though there had been attempts to harmonize at least the accreditation procedures for external auditors and to work towards mutual acceptance of auditors / audits, that hasn't materialized so far.

Although many producers and traders complain about de facto monopoly of iTSCI alternatives like the Better Sourcing Programme are still of very limited scope.

Figure 9: Significant uptake by all stakeholders supports global implementation (OECD)



Source: OECD, The Due Diligence Guidance in a nutshell¹²⁵⁸

Closed Pipe Initiatives

Closed pipe projects involve a defined set of suppliers and buyers along the value chain. Closed Pipe initiatives sourcing from the DRC started 2011 when Motorola Solutions and AVX launched the Solutions for Hope project as a pilot initiative to source conflict-free tantalum from Katanga province. Other companies such as Nokia, Hewlett Packard and Intel subsequently joined the initiative. Shortly afterwards KEMET, one of the world largest tantalum user, started the "Partnership for Social and Economic Stability". In September 2012, the Dutch government, together with industry partners Philips and Tata Steel, took the lead in establishing the Conflict-free Tin Initiative (CFTI) in South Kivu starting with one pilot tin mine (Kalimi). CFTI subsequently expanded its mining operations to Maniema at the

¹²⁵⁸ OECD (2016a).

start of 2014. The restructuring of the artisanal mining sector has seen tensions between workers and operators of closed pipes, specifically around the issue of mineral prices¹²⁵⁹. Some buyers and cooperatives have sought to buy minerals at fixed prices despite significant price fluctuations, which has led to miner protests and inducements to smuggle.

2.4.1.3 Specific Problems and Governance Challenges of ASM in the DRC

After industrial mining in the east of the DRC had largely collapsed in the 1990s, small-scale and artisanal mining prevailed. The production of mineral resources concentrates on the former provinces of North and South Kivu, Maniema and Katanga. Exact figures are not available due to the largely informal structure of the sector, but it is estimated that up to two million people work in artisanal and small-scale mining and as many as 10 million people in the DRC are dependent on the ASM sector. About 300,000 to 400,000 persons work in the gold and 3T sector in eastern Congo, which is the focus of all due diligence efforts on conflict minerals. The artisanal and small-scale sector thus plays an important role in the Congolese economy.

The artisanal mining sector is characterized by migration and seasonal work – it follows changes in security, market prices and the discovery of new deposits. By no means it is a stable sector and the presence of miners can fluctuate significantly at a given mine site.¹²⁶⁰ Despite their informality, work on mine sites is well structured by different people implementing specialized works as drillers, shovelers, woodworkers and others, but often coordinated by a single person.

Many of the mine sites in Eastern DRC are not legally recognized. According to the mine code (2002) the ASM sector needs to be organized as cooperatives to become legally recognized. The Coalition of Civil Society Organizations in the Great Lakes Region (COSOC-GL) has listed all registered mine sites: till 2015, 198 cooperatives were established, only 28 were established before 2010,¹²⁶¹ while very probably more than 2700 mines sites exist.

One specific problem of ASM sector is the militarisation of mine sites by irregular armed groups and though criminal networks within the DRC's public security forces (FARDC). Because artisanal mining is mostly informal, it is difficult for the government to control the sector, and to effectively tackle the conflict mineral issue.

2.4.1.4 CTC overview

The concept of CTC was elaborated by BGR in the run-up of the G8 summit 2007 and first piloted in Rwanda (2008-2011). Its objectives were twofold:

- ▶ Improve security of supply of German industry
- ▶ Support efforts in developing countries to improve their resource management and reduce conflicts.¹²⁶²

In contrast to many due diligence and traceability systems CTC focuses on the production at the mine site rather than on the whole supply chain. CTC complements the OECD guidance on supply chain due diligence in adding a dimension of responsible sourcing beyond the management of conflict risks and worst human rights violations.

¹²⁵⁹ Cuvelier et al. (2014) at 21.

¹²⁶⁰ IPIS (2015), p. 17.

¹²⁶¹ COSOC-GL (n.y.).

¹²⁶² Based on these two objectives, CTC in Rwanda was designed to improve standards in the Rwandan mine sector by supporting small and medium mining companies and as a Private Public Partnership- by facilitating involved companies to take due diligence measures. When traceability and traceability schemes like iTSCi were introduced, CTC in Rwanda was already established as a Premium standard, CTC certified material was traded at a price almost double of non-certified material.

National Legal framework

CTC as one of the certification schemes became mandatory in DRC through the *Arrêté ministerial* in 2012 stating that the supply chain from mines needs to meet the standards of CTC, OECD Guidance or the ICGLR.¹²⁶³

Centrepiece of the legal framework of the mining sector in DRC is the 2002 Mining Code. It legalised artisanal mining, while imposing a number of conditions for their recognition. The subsequent mining regulation (2003) established technical services under the supervision of the Ministry of Mines: Service for Assistance and Organisation of Artisanal and Small-scale Mining (SAESSCAM) CAMI, Commission de Certification (COCERTI) and the Centre for Evaluation, Expertise and Certification (CEEC). COCERTI was established in the context of the Kimberly Process and is now engaged in overseeing the different certification schemes – including conflict minerals. The task of SAESSCAM is to support artisanal miners and to help them creating cooperatives. Representatives of the ministry and the technical services are involved in the awarding of the CTC certification.

Outline of CTC

The CTC standard for DRC was first published 2011 through the Manual for the Certification of Ores in the Tin Industry in the Democratic Republic of the Congo – Principles, Guidelines and Standards and the Manual for Gold¹²⁶⁴. Both manuals are public and normative documents specifying the requirements that enterprises in the gold and tin business have to respect. They are considered reference documents under evolution stating that “when a regional certification document is developed and recognised by the council of ICGLR, that document will prevail all documents used on national level. In that event, the holders of a CTC certificate will have twelve (12) months to adapt to the regional standard and to achieve validation under that standard.”¹²⁶⁵ This reveals the complicated relationship between CTC and the regional provision for due diligence (RCM) approved by the head of states, which in hierarchical terms is the binding regulation for the ICGLR member states.

CTC in the DRC is based on five principles detailed in 21 criteria as outlined in the manuals:

1. Transparency and traceability:
Origin, nature, weight and quantity of the produced and marketed minerals as well as all the taxes, levies, fees and other dues provided for by the law and paid become transparent. The certification system accounts both for traceability of minerals throughout the supply chain (production, treatment/transformation, distribution and marketing) and appropriate tracking of documents and control of the quantities in question.
2. Decent work conditions:
The audited enterprise does not employ children and has to embark on a process of continuous progress in the work conditions as well as health and safety of the workers. This include guarantees for fair wages at the site.
3. Safety:
The audited enterprise has to look for safety at mine sites and prevention of risks
4. Community development consultations with local communities regarding the social, economic and institutional development
5. Protection of the environment:
The enterprise makes efforts for a continuous process of improvement in its environmental performance and will respect all legal requirements with regard to water, air, soil, energy, fauna and flora, as far as applicable. CTC certification encourages actively better environmental practise for

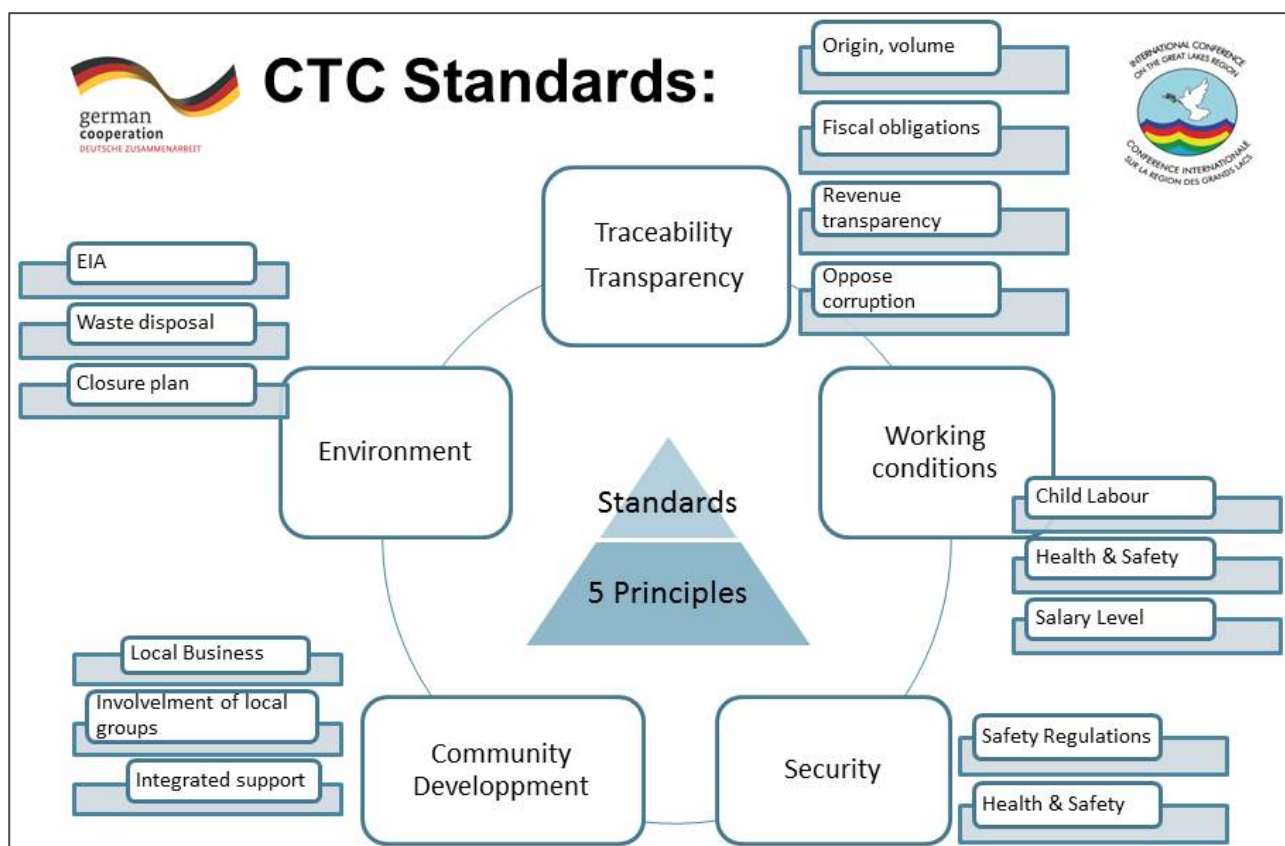
¹²⁶³ Arrêté ministériel n°0058/CAB.MIN/MINES/01/ 2012, 29 February 2012 fixing the procedures of qualification and validation of mine sites (gold and tin in the provinces of Katanga, Maniema, North Kivu, South Kivu and Province Orientale.

¹²⁶⁴ BGR (2011).

¹²⁶⁵ Ministère des Mines (2011).

prevention and recovery, as well as the application of appropriate and efficient production methods.

Figure 10: Certified Trading Chain (CTC) Standards



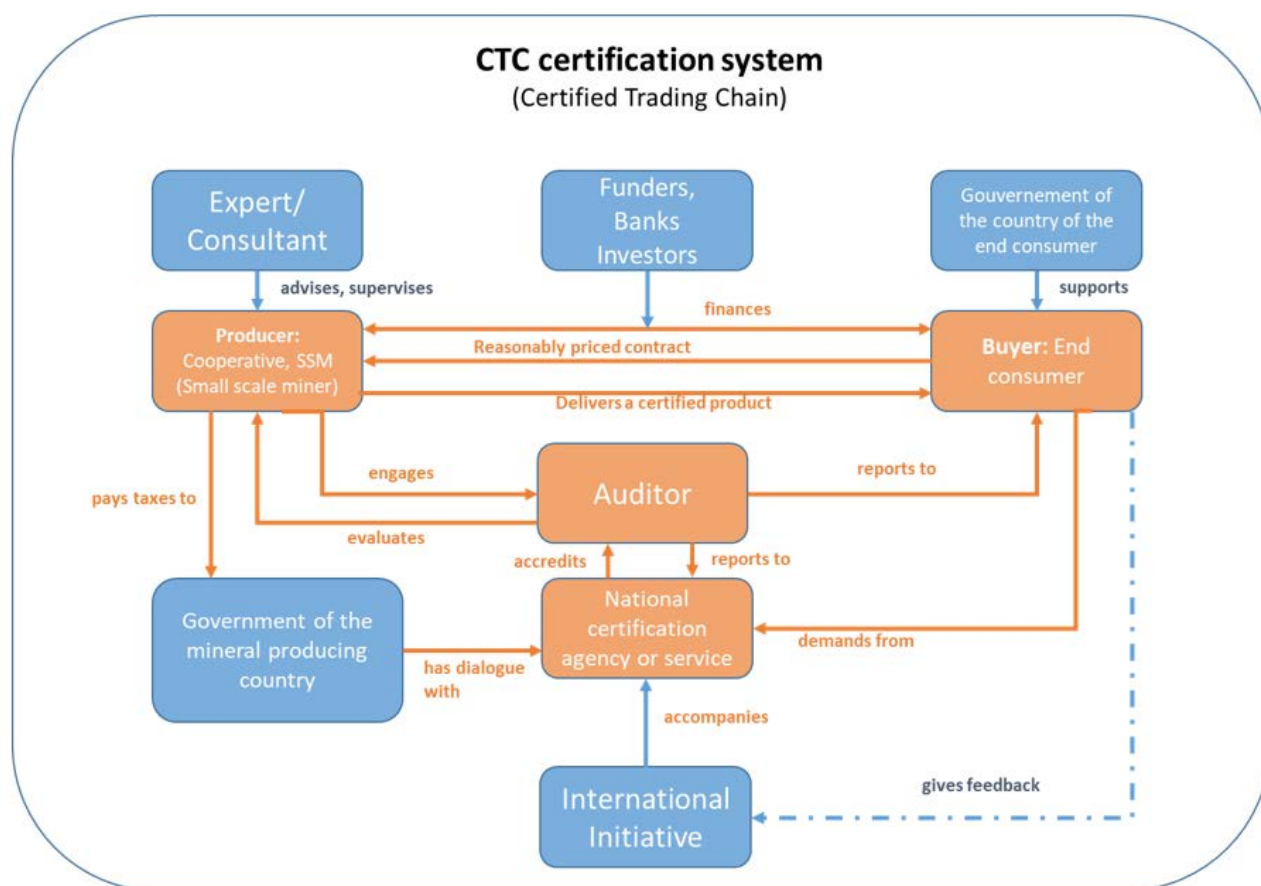
Source: BGR (2015)

Structure

The implementation process of CTC is overseen by a Working Group on Certification (*Groupe de Travail de Certification, GTC*) of the Ministry of Mines which involves all relevant mining institutions (SAESSCAM, CEEC, the mining cadastre CAMI). BGR works in cooperation with the Working Group.

Up-till now there is no independent structure in place overseeing the implementation of CTC as it is assumed that governments and their mining authorities adapt the basic CTC concept and integrate it in their corresponding national processes for due diligence. Nevertheless, funding is provided by the German Development Cooperation (for example the costly audits) and administration is widely task of BGR while the assumption is that on the long run it is the responsibility of the DRC's institutions.

Figure 11: Système de certification CTC (Certified Trading Chain)



Source: CTC Manual

Centrepieces of CTC are the baseline and compliance audits performed by an independent auditor contracted by BGR. The Baseline Audit is the starting point of the certification process. The independent auditor - accompanied by an audit-team - assesses the performance of the enterprise and recommends detailed steps supporting the enterprise to comply with the CTC requirements. Responsibility for implementing the recommendations lies with the co-operative. A second audit, on average one year later, assesses the grade of compliance with CTC criteria.

The audit-team is comprised by the independent auditor and representatives of the mine, of BGR, MONUSCO, Civil Society Organisations, CAMI, SAESSCAM, Mining Division of the concerned province and two representatives from the Working Group on Certification in Kinshasa – making it a time-consuming and costly undertaking.

Joint Missions

Since January 2014 mining companies and co-operatives only can export tin, tungsten, tantalum and gold if they are compliant with ICGLR requirements: These are no militarisation of the mine sites, no child labour, no pregnant women at mine sites, basic Human Rights (no torture, no forced labour, no widespread sexual violence). For the time being these are enforceable green, yellow or red flag standards. Furthermore, RCM includes a range of “progress criteria” modelled along the criteria of the Certified Trading Chains (CTC) scheme. Within the RCM these criteria may be monitored but not enforced.

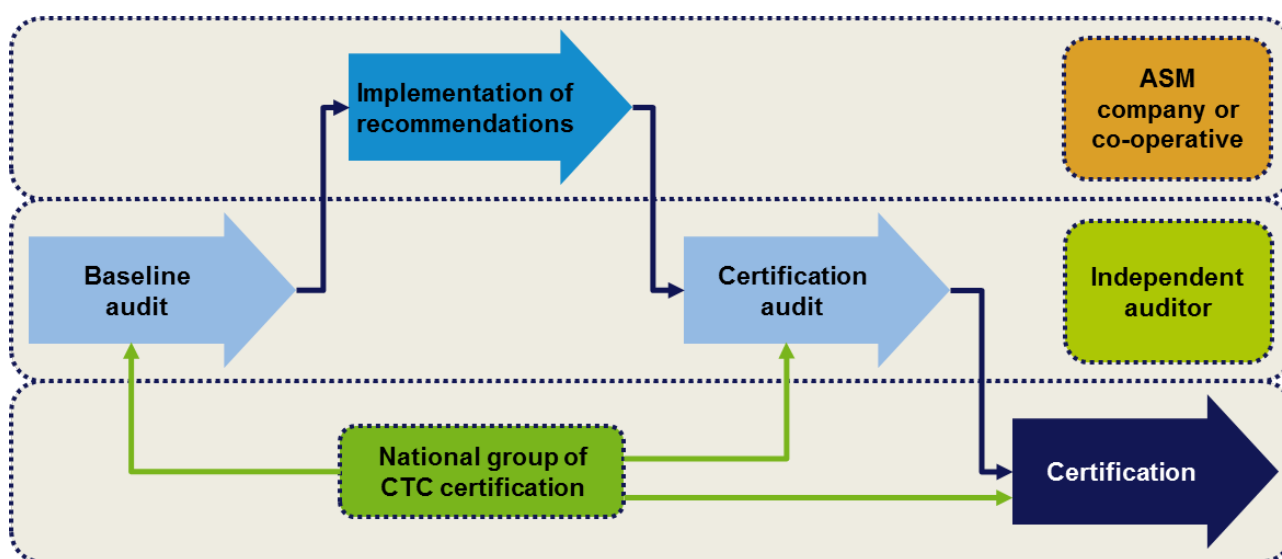
In the DRC compliance with RCM standards is validated by joint missions involving the Ministry of Mines, MONUSCO, International Organisation of Migration (IOM), Civil Society Organisations and BGR. If mine sites are flagged “green” they receive export permission through the Ministry of Mines.

Several attempts have been made to harmonize both schemes (joint missions and CTC). However, so far, the various formal and practical procedures applicable in the DRC overlap and generate confusion about their procedures and scope.

Experiences with CTC Implementation

Mines aiming for a CTC certification must first successfully undergo a baseline audit, adjust the mine according to the recommendations of the baseline audit, and finally pass a certification audit, which is the basis for the Government to grant a certificate. This process is lengthy and takes more than 12 months. Compliance audits are foreseen later on. The figure below illustrates the consecutive work steps of the CTC system and indicates the stakeholders involved in the process.

Figure 12: Process of CTC-certification



Source: BGR (2015)

The remoteness and the bad accessibility of some mine sites – especially during rainy season – leads to further challenges and high costs.

At the moment the CTC system is strongly promoted by the BGR project with independent international auditors. In the long-run, these administrative matters shall be completely handed over to the Congolese counterpart, in this case to GTC. At the moment they lack the human, material and financial resources to meet the mandate to roll out the system countywide. Moreover, a local pool of CTC auditors has not yet been established.

Although the CTC standard is mandatory in DRC, it is generally not known among companies and co-operatives. Currently they are more interested in a successful “green flag” RCM classification and a functioning iTSCi tagging system, which enable the legal trade and exportation of 3T (pre-) concentrates.

Driving forces towards the adherence to the CTC system are rather the hedging of political risks than economic cost-benefit considerations, even more as the price premium for certified material has reduced dramatically due to the extension of iTSCi.

The changes in ASM mining operations in DRC are fast and not always foreseeable. The inflexible and slow CTC system is challenged with these developments.

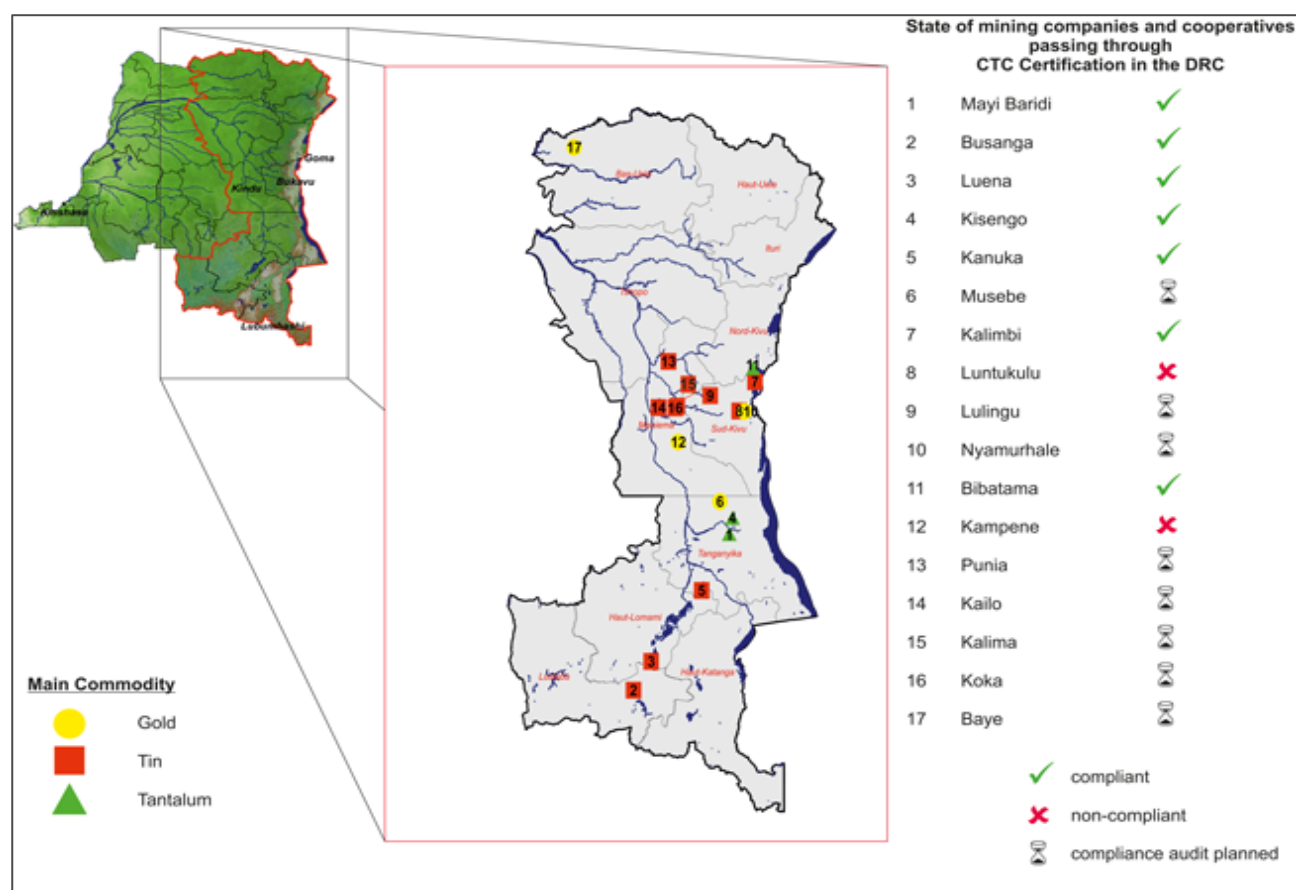
The implementation of the CTC system has further revealed that there are serious limitations of the system:

- ▶ **Limitation with regard to the degree of organization and skills available in the mining operation:**
The framework of internal management approaches defined by the CTC system requires a minimum degree of internal organization, which is expressed in the fact that regulatory requirements can be adequately taken into account and can be poured by the company into internal strategies, policies and instructions for action and compliance with which can be effectively monitored. This requires a division of labour and a clear definition of responsibilities, which are rarely given in loose associations of actors such as co-operatives. The recommendations given with the baseline audit shall enable the ASM companies or co-operative to comply with CTC standards. However, not all ASM companies or co-operatives have sufficiently skilled staff to put the given recommendations into practise. Further external support would be required. SAESSCAM, whose mandate is to support ASM operations, does not have the required technical capacity, financial means, and reputation among the ASM miners to do so. Regular follow-up would be required to improve conditions on-site and ensure a successful CTC certification. For very small and less organised companies or co-operatives, the CTC standard is too ambitious and without additional external, technical support a certification actually is out of reach.
- ▶ **Limitation with regard to the size of the establishments:**
The cost of auditing and certification, as well as the internal monitoring of due diligence obligations, can only be met by ASM operations of a certain minimum size that can bear the costs incurred. In addition, it can be observed that small, artisanal and particularly low-rate mechanized operations are technically limited to the exploitation of the weathering zones of deposits, so that the recoverable reserves are small and thus the life span of these operations is short. ASM therefore often has a nomadic character, which cannot be reconciled with certification and long-term operational support. This can be observed in the DRC, e.g. when conditions significantly differs between pre-visits and audit in terms of the expected numbers of miners on-site.
- ▶ **Limitation with regard to legal status:**
In particular, the standards summarized under Principle 1 (traceability) require a legally secured status, i.e. the existence of a valid legal title or a valid agreement with the title, a registration of the key players as legal entities and the implementation of the rule-of-law mechanisms internally. In addition, it is difficult to deal with companies in which several different actors work under different conditions (mine sites) on one mining title. On the one hand the formal requirement to examine and award the certification for the entire title, and on the other hand the large differences in the applied mining practice lead to less specific statements in the baseline audit and to disadvantaged treatment of responsible stakeholders and hinder the certification process.
- ▶ **Limitation of the trade chain:**
Even today, a significant share of the Congolese mining production is still sold via the grey market and illegally exported to neighbouring countries. The operations whose chain of commerce runs along these routes cannot be certified.
- ▶ **Limitation on the scope of state control:**
In areas that are effectively out of state control or even controlled by rebel groups, the implementation of CTC certification will be virtually impossible, as local actors have arranged themselves with the status quo and will not be able to profit from the prevailing situation and will not be easily displaced. As long as the state cannot fulfil its control function, mandatory systems are therefore of little use.

In terms of CTC credibility and international acceptance it is crucial that compliance audits are carried out regularly because even certified companies – without supervision – tend to undermine the standard by, for instance, tolerating child labour.

At the moment 17 mine sites, which comprise more than 100 workings, are audited pursuant to the CTC system: seven mines are compliant, at eight mines a compliance audit is planned, and only two mines are not compliant at the moment. The following map highlights the locations and the state of CTC certification. Until the end of 2016, 437 joint missions were implemented: 408 mine sites are flagged “green”, 18 sites are flagged “yellow”, and only 11 sites are flagged “red” – out of estimated more than 2000 ASM sites.

Figure 13: State of mining companies and cooperatives passing through CTC Certification in the DRC



Source: BGR¹²⁶⁶

2.4.1.5 Outlook / lessons learned

1. CTC is a certification schemes, which goes beyond conflict addressing the multiple challenges of artisanal and small-scale mines. It aims towards a continuous improvement of production conditions. It is one of the few certification schemes in the mining sector, which meets the challenges of development. Due diligence schemes like iTSCi have lower entry barriers.
2. CTC requires administrative and planning capacities of the mining cooperatives and enterprises, in order to cope with principles and criteria of CTC. Currently, only few are able to comply with the obligations of the certification. It requires certain size of the company / co-operative, many companies in the Congolese mining sector don't have the necessary structure to integrate the CTC criteria into their management and planning.
3. CTC it is not a prerequisite for the export of minerals. The international conflict regulations require a due diligence and traceability system – they do not demand further provisions on working conditions or environmental measures to get access to the international market. In consequence, the minerals market doesn't pay a premium on CTC certified material. The whole

¹²⁶⁶ BGR (2016).

CTC certification - including the two audits and the measures the mining enterprises or cooperatives have to implement to be certified as compliant - amount to 100.000.-€. Hitherto, the audits are financed by the German Development Cooperation while there is hardly any profit in monetary terms for the mining enterprise or cooperative to be certified. In monetary terms, it does not pay off for cooperatives to participate in the CTC process.

4. Furthermore, there is a lack of financial incentives to apply for CTC as the market for minerals doesn't pay the costs of measures necessary to comply with CTC principles and criteria – as for example the requirement to develop an environmental impact plan and a plan for mine disclosure.
5. From a downstream companies point of view CTC is essentially a scheme to minimize political risk in their supply chain – mainly due to two factors:
Broad range of principles and criteria assessed by independent auditors
Involvement of BGR giving credibility to the scheme.
6. Due to the fragile situation in Eastern Congo, interference of military forces is unpredictable. Certification systems based on annual audits fail to capture the constantly changing facts on the ground relating to militia presence.
7. Mandatory premium certification is a problem if the state does not provide the mechanism and the means for a nationwide implementation. In a fragile environment like the DRC, the state is seldom present in the mining regions and where its organs are present they are often part of the problem, as for instance the case of the Congolese military forces illegally taxing mine sites.

Lessons for DRC

CTC is meant to be a national certification scheme requiring national ownership and national oversight. This is extremely difficult on two levels:

- ▶ Congolese mining institutions lack credibility on the national as well as on the international level. The credibility of CTC “certificate” relies on the participation of BGR and not of the Congolese working group on certification.
- ▶ CTC is still seen as BGR owned – even the wording in the *arrête ministerial* refers to CTC as of BGR. Ownership of the Congolese Ministry of Mines is minimal.

To transform it into a national owned certification scheme the national institutions and other entities like NGOs and private sector need to play a crucial role in all decision related to CTC.

Furthermore, there is still a lot of confusion concerning the concept of CTC and other due diligence schemes.

Lessons for a potential dissemination of CTC in other countries or for other commodities

- ▶ A potential dissemination of CTC in other countries would require a driver. Up till now this was BGR and the German Development Cooperation but that's not enough as regional or national drivers are needed.
- ▶ It needs an international demand and willingness to pay for mineral products certified according to CTC for internalizing the certification costs.
- ▶ It needs proper international /regional or national structure overseeing the implementation of CTC and future enhancements of the scheme – or the adaptation of the current scheme to national conditions.
BGR is a German public entity and as such not in a situation to be the owner of a certification scheme implemented in third countries.

Lessons for international actions focusing on the fostering of responsible value chains

- ▶ CTC implementing entities like cooperatives, small mining companies and others need political and financial incentives.
- ▶ Certification schemes have to balance the interest of companies and cooperatives in the ASM sector to get access to the international market (in the case of DRC through traceability schemes) and the standards promoted through a premium certification.

2.4.1.6 Conclusions

CTC has the architecture of a premium system, but has been made compulsory without being able to address the vast majority of the ASM sector.

The ratio of CTC to the regulatory framework in the DRC is similar to the OECD Guidance to DFA, with the difference that CTC is mainly promoted by the public sector (BGR). Both, the OECD Guidance as well as CTC need to continuously evolve as the different stakeholders are gaining more experience in implementing the schemes, and standards and procedures will improve. This is done mainly through multi-stakeholder processes in which the legislature is an important actor but not the only one. As regulations processes don't follow the same dynamics as multi-stakeholder initiatives this can lead to incoherencies between regulation and standards.

ITSCi and other traceability and due diligence schemes and CTC might contribute to demilitarisation of mine sites in Eastern Congo, but they might as well – due to relatively high per-unit costs in association with low value of local 3T production – have an impact of lower purchasing prices offered to local producers. In conjunction with disharmonized tax regulations in the neighbouring countries this might incentives smuggling.

There is a trade-off between sophisticated standards and participatory oversight structures and the possibility of small-scale and artisanal mining to comply with them. To make a Premium standard compulsory without providing enough incentives for companies in the ASM sector to comply with these standards and without providing sufficient support for them and without having the capacities to monitor implementation is counterproductive.

2.4.2 Implementation of the Minamata Convention in Peru

2.4.2.1 Introduction

The Minamata Convention in a nutshell

The Minamata Convention¹²⁶⁷ was adopted on 10 October 2013 with the aim of restraining the adverse effects of mercury in human health and the environment via several measures covering mercury extraction, processing and transport, mercury wastes and contaminated sites, as well as other resource extraction processes (see for more information Section 2.1.2.3). These include a ban on new mercury mines, the phase-out of existing ones, the phase out and phase down of mercury use in a number of products and processes, control measures on emissions to air and on releases to land and water, and the regulation of the sector of artisanal and small-scale gold mining (ASGM).

Since the Convention does not prescribe quantitative emission or release limits, its effectiveness in reducing the resource extraction will rely on the implementing decisions and guidelines to be developed¹²⁶⁸. To date, the Minamata Convention has 104 parties and 128 signatories.¹²⁶⁹ It entered into force on 16 August 2017 and convened the first Conference of the Parties (COP) in September 2017. It can be said to have initiated progressive worldwide engagement, keeping the matter high in the international political agenda. The COP addressed the operational and financial rules, as well as the guidelines in relation to the matters stipulated in the Convention and suggested by the intergovernmental negotiating committee, such as guidance on the preparation of the National Action Plans (NAP) for the ASGM sector.¹²⁷⁰

In this vein, the ASGM sector is the most important contributor to mercury emissions to air from anthropogenic sources with 37% of the releases in 2010¹²⁷¹. Around 10 to 15 million miners worldwide are working in this sector in more than 70 countries¹²⁷².

In this context, the Minamata Convention (Art. 7, Annex C) provides for the reduction and where feasible the elimination of the use of mercury and mercury compounds, emissions and releases to the environment stemming from ASGM. The Latin American countries, and notably the Andean region, are highly concerned for this matter as it is possible to observe on Figure 14. As will be described in detail below, the Convention stipulated that parties with ASGM activities and processing in which mercury amalgamation is used must notify the Secretariat and develop a National Action Plan. To date, ratification/accession rates in the Latin American & the Caribbean region amounts to 15 countries.¹²⁷³

¹²⁶⁷ Minamata Convention on Mercury. Kumamoto, 10 October 2013, available at: <http://www.mercuryconvention.org/> (last accessed on 28 February 2019).

¹²⁶⁸ Wittmer (2015).

¹²⁶⁹ See <http://mercuryconvention.org/Countries/tabid/3428/language/en-US/Default.aspx> (last accessed on 28.02.2019).

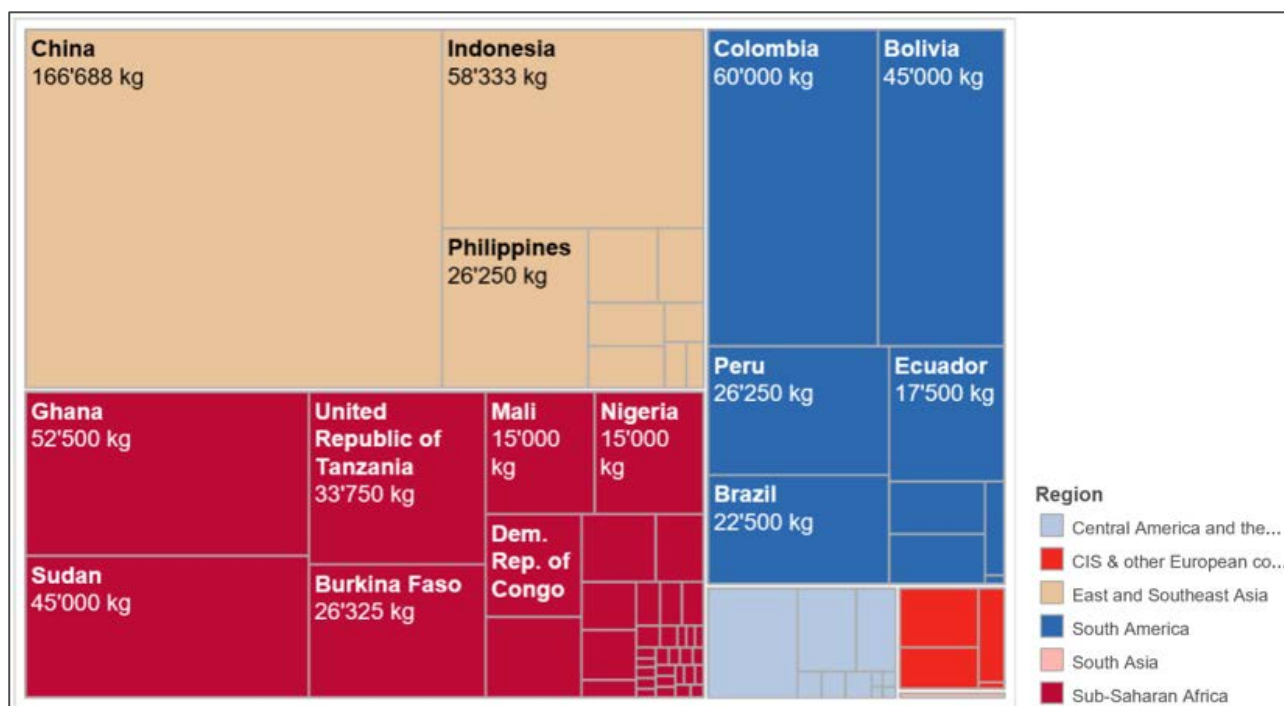
¹²⁷⁰ For an overview of the meeting documents see <http://cop1.mercuryconvention.org/meeting-documents/>.

¹²⁷¹ UNEP (2013).

¹²⁷² UNEP (2013b): "Chemical and Waste", available on the internet at <http://web.unep.org/globalmercurypartnership/>.

¹²⁷³ Bolivia, Brazil, Costa Rica, Ecuador, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru & Uruguay. El Salvador, Antigua & Barbuda and St Kitts & Nevis have accessed to the Convention.

Figure 14: Global Mercury Emissions of the ASGM Sector 2010



Source: Data visualization, UNEP¹²⁷⁴

Based on the foregoing, Peru, whose ASGM activities are traditionally deep-seated and still very significant, has been directly concerned by the process of the Minamata Convention. Peru ratified the Convention in January 2016 and its government considers the Convention as a 'timely opportunity to reduce the use of mercury in the artisanal and small scale gold mining, which is of urgent character in some regions where ASGM is concentrated and mercury is used indiscriminately, such as Madre de Dios and Puno'¹²⁷⁵.

This case study analyses the different dynamics and main progresses achieved on the implementation of the Minamata Convention in Peru, regarding the ASGM sector and its relevance as a governance instrument for reducing mercury pollution in this sector. The study draws some tentative conclusions regarding its main implementation chances, obstacles and outlook as applied to the Peruvian context.

¹²⁷⁴ UNEP (2013a): "Global mercury assessment data visualization", available on the internet at http://public.tableau.com/views/GlobalMercuryEmissions/Dashboard1?:embed=y&:display_count=no&:showVizHome=no#1.

¹²⁷⁵ Ministry of Environment (MINAM) (2016).

2.4.2.2 Facts Peru

The following table summarizes the current key facts of Peru with regards to its ASGM sector and mercury use/emissions.

Table 49: ASGM and mercury use in Peru

Parameter	Information
Gold produced	According to the Ministry of Energy and Mines in 2015 the gold production was of 133.8 tons, while in 2011 was of 151.4 tons ¹²⁷⁶ . In the same year the customs authority (SUNAT) reported 320 tons exported. The discrepancy between both figures could be explained by concrete factors. Part of it could be due to the fact that the exported gold calculated by the SUNAT also contains impurities, whereas the Ministry calculates only the pure (fine) gold. However, since a large part of the gold exported has a high concentration content, the difference is not satisfactorily explained. This situation suggests that illegal gold will be largely exported ¹²⁷⁷ and/or that the exportation figures also includes gold originally produced in other countries of the region (potentially illegally).
Gold produced from ASGM	40 t/a ¹²⁷⁸
Gold mining companies using mercury	13 in 2016 registered at SUNAT (National Superintendence of Customs and Tax Administration) ¹²⁷⁹
Number of miners working in ASGM	450'000 (estimation) ¹²⁸⁰ , Reducing mercury pollution by training Peruvian artisanal gold miners)
Percentage of mines without mining titles	The origin of 50% the gold produced is unknown (50% of 320 tons) ¹²⁸¹
Mercury use in ASGM	49-91 tons in 2010 ¹²⁸² < 50 tons during 2014 and 2015 ¹²⁸³
Mercury emissions due to ASGM	Air: 26.2 tons in 2012 ¹²⁸⁴ , 17. 04 tons in 2014 Water: 13.9 tons in 2014 Soil: 12.3 tons in 2014 ¹²⁸⁵
Minamata Convention Ratification	25.11.2015
Minamata Initial Assessment	Work ongoing
National Action Plan	Work planned with GEF support

2.4.2.3 Specific problem and governance challenge

ASGM in Peru

Situation

Peru has already been a gold producer during the Inca imperium period. In the last decades, gold extraction has brought several challenges for the Peruvian government in terms of environmental and

¹²⁷⁶ Ministry of Mines and Energy (MINEM) (2016).

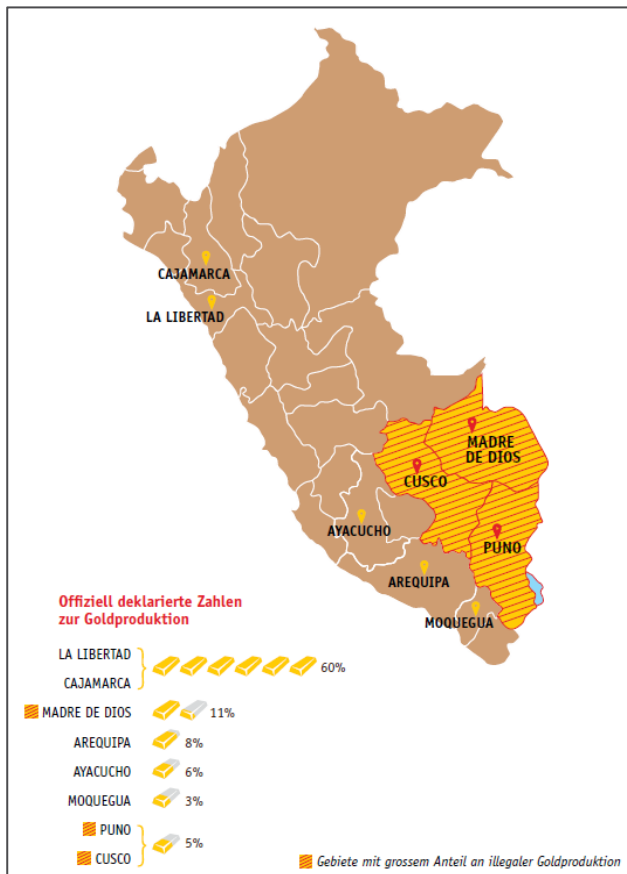
¹²⁷⁷ Gesellschaft für bedrohte Völker (2015): *No Dirty Gold*, available at: <https://www.gfbv.ch/de/kampagnen/no-dirty-gold/>.

¹²⁷⁸ Veiga et al. (2015).

¹²⁷⁹ Ministry of Environment (MINAM) presentation held at the workshop "Progresses on the Minamata Convention Implementation" Lima, 09 March 2017.

societal impacts. Before the 1980 years, the gold production was not higher than 9 tons per year. Since the introduction of the free economy market during the Fujimori regime and due to the increase of gold prices, the amount of gold produced has increased to reach around 153 tons in 2016¹²⁸⁶. This value concerns the official gold production. However Peru is severely confronted to illegal and informal gold mining. It is supposed that an important amount of gold is produced and exported to Bolivia illegally. Stricter regulations in Peru suggest that gold is smuggled to Bolivia and exported to the USA¹²⁸⁷.

Figure 15: Official gold production data (Peru)



Source: Gesellschaft für bedrohte Völker (2015)¹²⁸⁸

Figure 15 shows the most important regions of gold mining in Peru. The biggest mine in South America, Yanacocha, is situated in the region of Cajamarca. The ASGM sector is mainly visible in the regions of Madre de Dios, of Puno, of Ica-Arequipa-Ayacucho and La Libertad. Mercury is mostly used in the amalgamation process which causes several impacts on the environment and on human health. ASGM

¹²⁸⁰ Veiga et al. (2015).

¹²⁸¹ Gesellschaft für bedrohte Völker (2015): *No Dirty Gold*, available at: <https://www.gfbv.ch/de/kampagnen/no-dirty-gold/>.

¹²⁸² AMAP/UNEP (2013).

¹²⁸³ Ministry of Environment (MINAM) presentation held at the workshop "Progresses on the Minamata Convention Implementation" Lima, 09 March 2017.

¹²⁸⁴ AMAP/UNEP (2013).

¹²⁸⁵ Ministry of Environment (MINAM) presentation held at the workshop "Progresses on the Minamata Convention Implementation" Lima, 09 March 2017.

¹²⁸⁶ Ministry of Energy and Mines (MINEM): "Statistics Gold", available on the internet at: <http://www.minem.gob.pe/estadistica.php?idSector=1&idEstadistica=11299>.

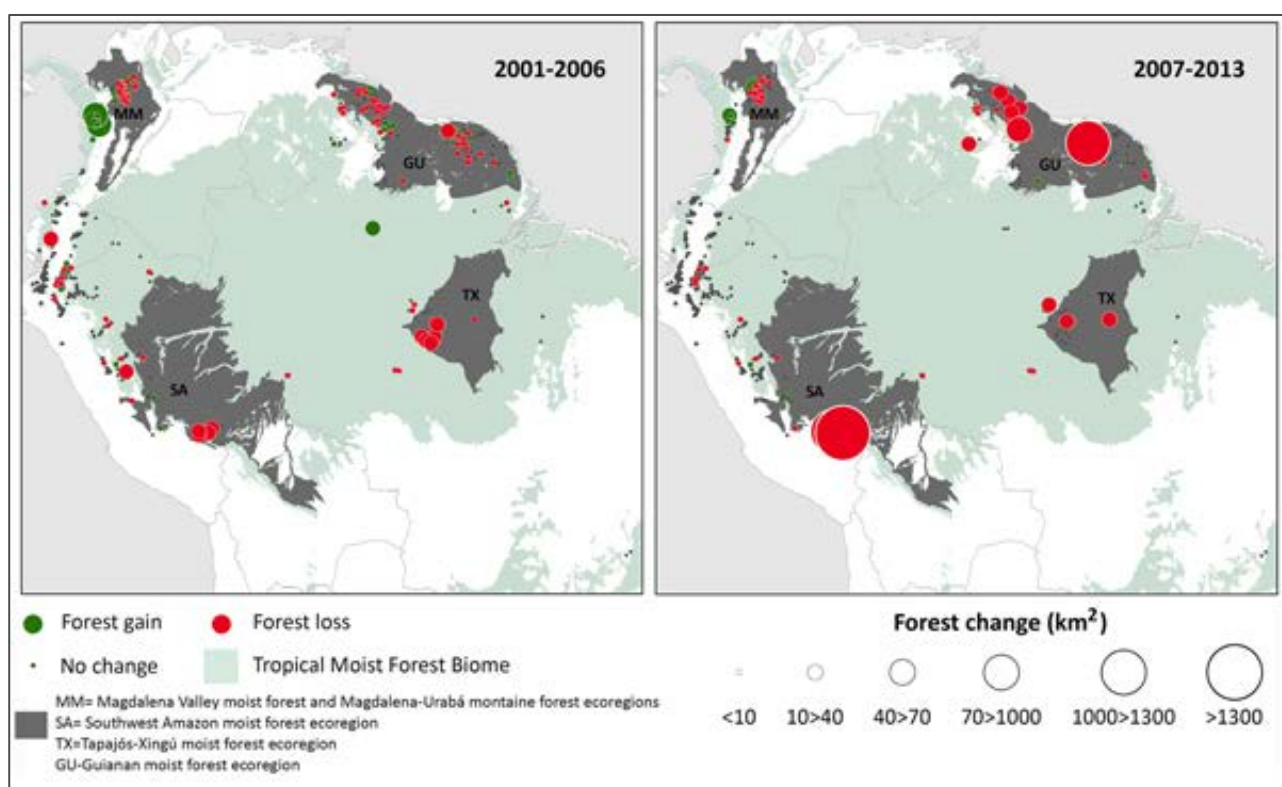
¹²⁸⁷ Global Initiative against Transnational Organized Crime (2016).

¹²⁸⁸ Gesellschaft für bedrohte Völker (2015): *No Dirty Gold*, available at: <https://www.gfbv.ch/de/kampagnen/no-dirty-gold/>.

activities are responsible for damages like air, water and soil pollution, sedimentation of rivers, erosion, destruction of the riverine ecosystems and deforestation. It is as well affecting the local communities. The figure 3 gives an overview of the decrease of the forest cover in the Amazonia region. It is worth mentioning that mercury use for ASGM activities can –through an indirect effect, further deepen the deforestation problematic, especially when referring to alluvial gold mining. As it is possible to see on the maps, the forest cover in Peru has been affected from significant changes between 2007 and 2013.

To achieve a mercury reduction in the ASGM like intended in the Minamata Convention, getting an overview of all the components that are part of the issue allows to better understand the complexity of the topic and to understand what the governments with ASGM on their territory are confronted with. The next paragraphs try to give this overview and the related challenges.

Figure 16: Distribution of gold mining sites with significant change in forest cover (km²) in periods 2001-2006 and 2007-2013



Source: Alvarez-Berríos and Aide (2015)

Pollution through mercury use

Mercury amalgamation is the method most commonly used in the ASGM sector. Simple, inexpensive and fast, it is attractive for artisanal miners. Unfortunately this method releases high mercury emissions. According to UNEP, the worldwide ASGM sector is responsible for about 37 % of the global mercury emissions to the atmosphere in 2011. It is estimated that about 1,610 tons were globally released by ASGM sector, 45.2% of them were emitted to the atmosphere (727 tons) and 880 tons were discharged in mine tailings into soil, rivers and lakes¹²⁸⁹. South America, Sub-Saharan Africa, and East and Southeast Asia are the regions with the biggest releases generated from the ASGM sector¹²⁹⁰. Figure 4

¹²⁸⁹ AMAP/UNEP (2013).

¹²⁹⁰ Ibid.

shows the estimated mercury use in ASGM sector and the emissions into the air for Peru, Bolivia, and Colombia. According to the inventory of 2010¹²⁹¹, the ASGM sector in Peru used around 70 tons of mercury and the emissions to air due to this activity are estimated at 26 tons. Worldwide the ASGM sector uses 370 tons which represents 23% of the total global mercury use. Regarding the emissions released, the emissions discharged into the air from these three countries represent 18% of the global mercury emissions into the air due to the ASGM sector.

Figure 17: Mercury consumption in ASGM and associated emissions

Country	Quality of data ^a	ASGM Hg use, t			Percentage of total Hg applied to concentrate amalgamation	Percentage of total Hg applied to whole ore amalgamation	Emission Factor ^b	Year of most recent data	Mean air emission, t
		min	mean	max					
Total		910.0	1607.8	2305.6					726.771
Colombia	3	90.0	180.0	270.0	17	83	0.33	2012	60.000
Bolivia	4	84.0	120.0	156.0	25	75	0.38	2012	45.000
Peru	4	49.0	70.0	91.0	25	75	0.38	2010	26.250

Source: AMAP/UNEP (2013)¹²⁹²

Mercury Production and imports of Peru

In 2013, Peru was part of the top 10 countries importing mercury¹²⁹³, with about 170 tons in 2013, according to the Peruvian National Superintendence of Customs and Tax Administration (SUNAT). Nevertheless, during the last years, Mercury imports have decreased substantially, meaning that in 2016 **zero** legal importations of mercury were registered by SUNAT and just three enterprises have imported more than 50 tons of mercury in the period 2010-2015¹²⁹⁴. However, miners often get the mercury through illegal ways. Although the sale of mercury is not yet prohibited, the sale of this metal often occurs in informal markets. Governments have already attempted to track mercury sale. Markets (Ferias) at the Peruvian and Bolivian border in the region of Lake Titicaca are one well known place to buy mercury. In the Brazilian Amazon, the price of mercury on ASGM sites did reach USD 300\$/kg in 2014¹²⁹⁵, while the international reference price, according to the U.S. Geological Survey, is estimated USD 53.7 per kg¹²⁹⁶.

¹²⁹¹ Ibid.

¹²⁹² Ibid.

¹²⁹³ Mercurywatch (2016): "Database on Mercurywatch.org", available on the internet at <http://www.mercurywatch.org/Default.aspx?PaneName=DATABASE>.

¹²⁹⁴ National Superintendence of Customs and Tax Administration (SUNAT) presentation held at the workshop "Progresses on the Minamata Convention Implementation" Lima, 09 March 2017.

¹²⁹⁵ Veiga et al. (2014).

¹²⁹⁶ U.S. Geological Survey (USGS) (2014): "Historical Statistics for Mineral and Material Commodities", available on the internet at <https://minerals.usgs.gov/minerals/pubs/historical-statistics/>.

Figure 18: Mercury Imports (tons) registered by official authorities

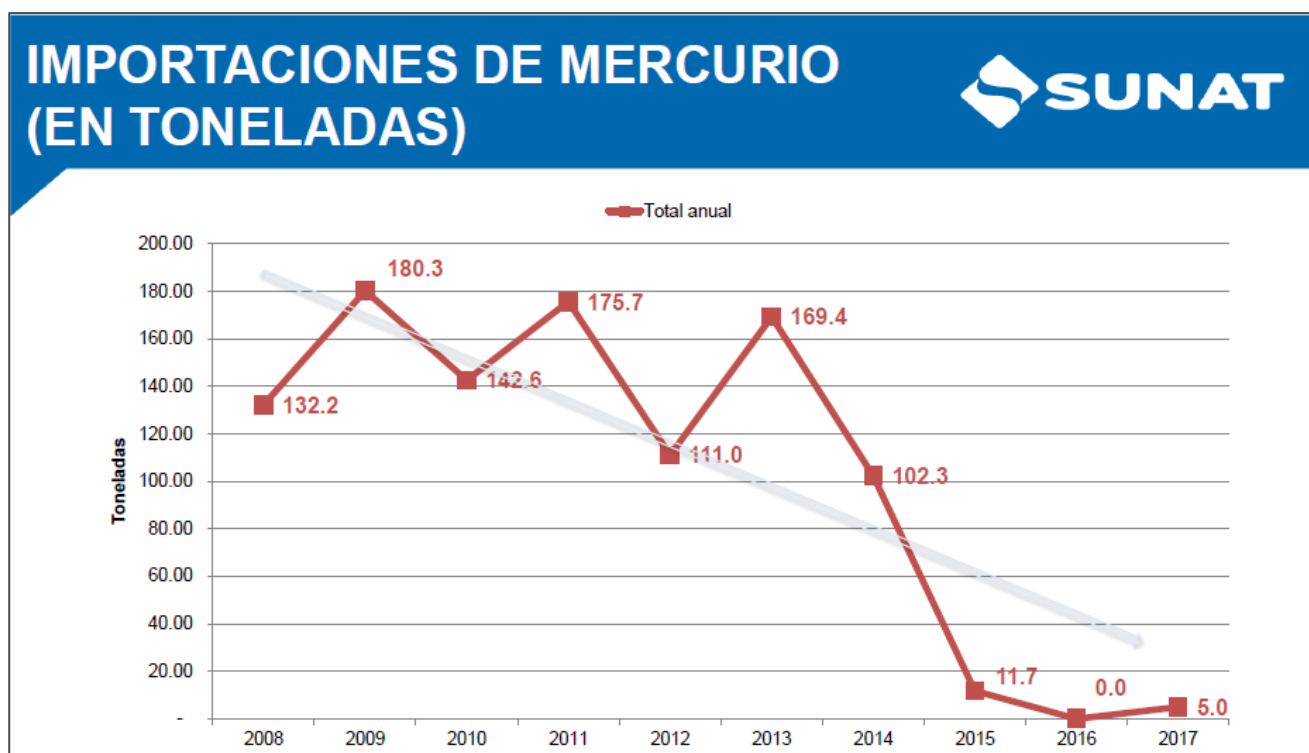
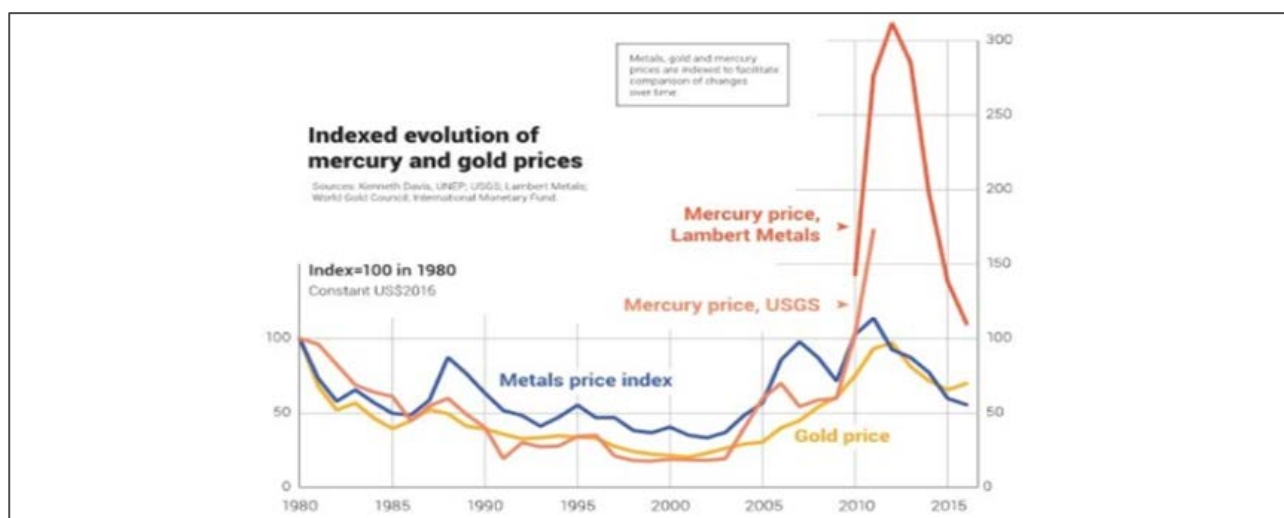
Source: SUNAT (2017)¹²⁹⁷

Figure 19: Indexed evolution of mercury and gold prices

Source: K. Davis (2017)¹²⁹⁸

Particularity of the ASGM sector

In general terms, the mining sector can be differentiated in two types of mines: artisanal and conventional. While the conventional mines are legal and have mechanized processes, the ASGM sector can be legal, informal and illegal, and the processes used can be manual, semi-mechanized and sometimes

¹²⁹⁷ National Superintendence of Customs and Tax Administration (SUNAT) presentation held at the workshop "Progresses on the Minamata Convention Implementation" Lima, 09 March 2017.

¹²⁹⁸ Davis (2017).

mechanized. ASGM is a vast term, which implicates different types of mines and miners. The Peruvian categorization of mining includes large and medium scale mining, small scale mining and artisanal mining, which is legally defined as a “subsistence activity with an intensive use of labour, making it a great source of employment creation and productive side benefits (...) requiring therefore an especial regulation”¹²⁹⁹.

The Minamata Convention defines it as follows: “Artisanal and small-scale gold mining means gold mining conducted by individual miners or small enterprises with limited capital investment and production”. This definition characterizes well one of the main aspects of the miners working in ASGM: the limited capital investment. The ASGM sector is employing 10 to 15 million miners worldwide in more than 70 countries.¹³⁰⁰ Miners are principally working in the ASGM sector for poverty and subsistence reasons. The growing importance of the sector is a response to the difficult living conditions in the rural areas and the low education level and the high prices of gold on the market. The gold production of the ASGM sector is estimated between 380 t and 450 t, which represents 12% of the global gold production¹³⁰¹).

The ASGM sector is facing several difficulties on the technology, environmental, social, legal and financial levels. Figure 20 gives an overview of the problems encountered by the ASM.

In comparison to industrial mining, the ASGM sector can often be characterized by the following parameters¹³⁰²:

- ▶ insufficient consideration of environmental issues
- ▶ lack or very reduced degree of mechanization, great amount of physically demanding work
- ▶ inefficiency in the exploitation and processing of the mineral production (low recovery of values)
- ▶ exploitation of marginal and/or very small deposits, which are not economically exploitable by mechanized mining
- ▶ low level of productivity
- ▶ low level of occupational safety and health care
- ▶ deficient qualification of the personnel on all levels of the operation
- ▶ low level of salaries and income
- ▶ periodical operation by local peasants or according to the market price development
- ▶ lack of social security
- ▶ chronic lack of working and investment capital
- ▶ absence of legal mining titles”

The difficulty to precisely define the sector does not facilitate the task for the governments when defining measures to reduce the mercury emissions. In addition, this sector is often related to armed groups or is under stranglehold of guerrilla groups, as for example in Colombia¹³⁰³.

¹²⁹⁹ Law N° 27651 (2017): “Formalization and promotion of ASM”, available on the internet at <http://www.mina.gob.pe/wp-con>.

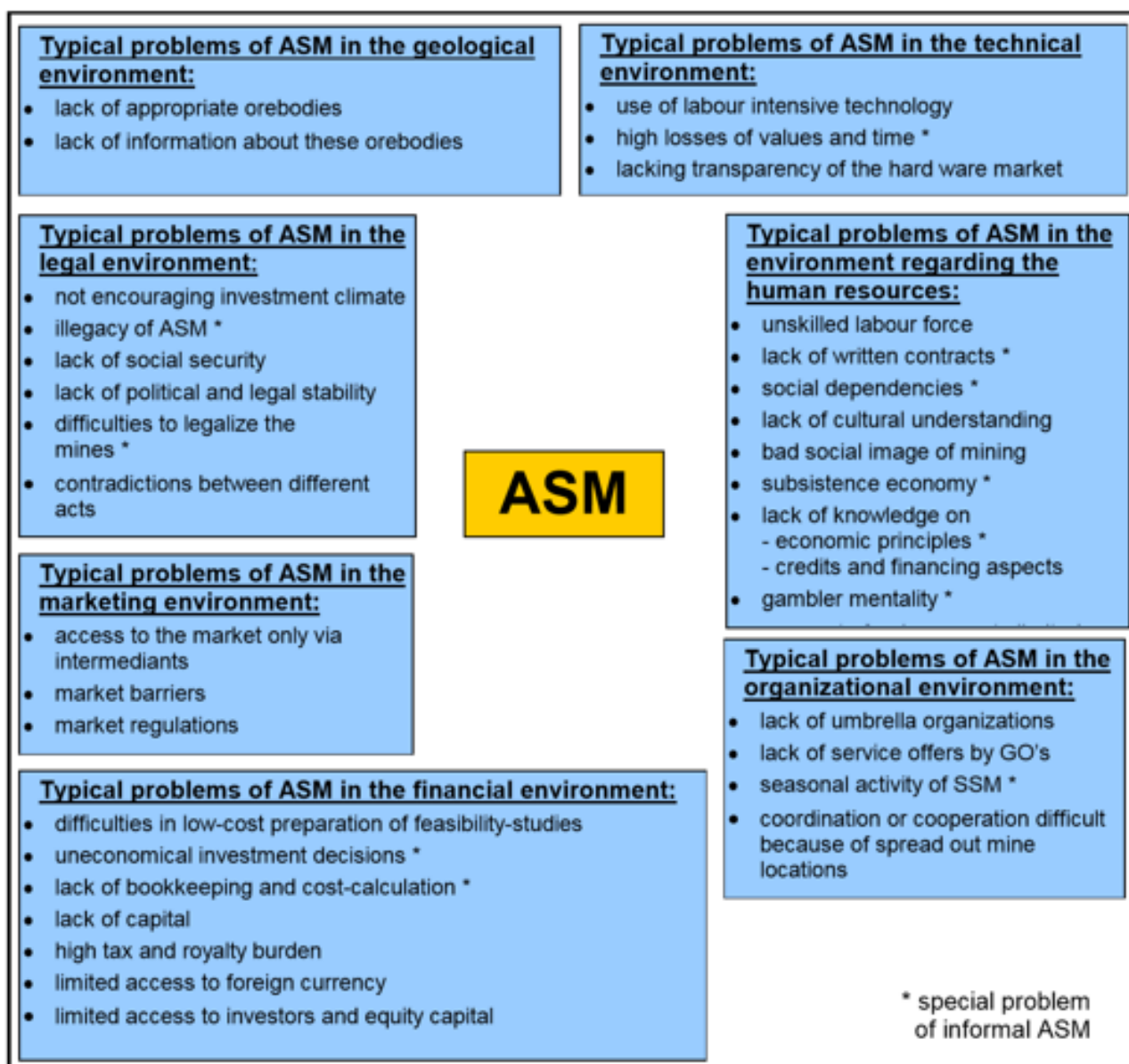
¹³⁰⁰ UNEP (2013b): “Chemical and Waste”, available on the internet at <http://web.unep.org/globalmercurypartnership/>.

¹³⁰¹ Veiga et al. (2014).

¹³⁰² Hentschel et al. (2002).

¹³⁰³ Global Initiative against Transnational Organized Crime (2016).

Figure 20: Typical problems of ASM



Source: Hentschel, Hruschka and Priester (2002)

Formalisation of ASGM in Peru

As described above, one of the particularities of the ASGM sector is that the mining activities are often not legal. A differentiation is made between illegal and informal. Illegal miners are mainly operating in areas where mining activities are strongly prohibited, as for example in protected areas, whereas informal miners are those who just do not fulfil all the requirements to get a legal authorization, like for example by operating without miners title, but not by having activities in forbidden areas.

When addressing the mercury issue, formalization is an important aspect. During the last 20 years, the government of Peru implemented several decrees and resolutions in order to enhance the formalization rate of the ASGM sector and to reduce the mercury emissions.

The current requirements to get formalized are set out in the Legislative Decrees n°1293 and n°1336 of 2016, a new legal framework which restructured the formalization process (Legislative Decree n°1105 MINEM). It dictates the creation of a Mining Formalization Registry (*Registro de Formalización Minera -REINFO*) with the aim of facilitating the procedures, allowing new ASGM miners to register to

the process during six months (from 06/02/17 to 01/08/17) and extending the validity term of the process for 3 years, also providing some economic and operative incentives for formalization (e.g. preference rights over the area where mining is carried out)¹³⁰⁴.

According to the new legislation the current formalization process includes:

- ▶ Inscription in the Integral Registry of Mining Formalization (those already in the Register of 'Declaration of compromises' from the previous scheme are automatically registered)
- ▶ Approval of the 'Instrument of Environmental Management and Inspection for the formalization of ASGM activities or the Corrective Environmental Management Tool', when applicable (environmental license'
- ▶ Accreditation of propriety or authorization of the use of the superficial land
- ▶ A title of concession or an agreement with the concession holder

In retrospect, getting formalized in Peru has been in general a long administrative process for ASGM miners and can often not be achieved by those. Besides the lack of financial resources and the high administrative requirements, one of the principal hurdles to get formalized has been the acquisition of a concession title which gives the authorization to exploit the ore body. Most concessions already belong to companies or private persons. The small-scale or artisanal miners have to negotiate an authorization or contract with the concession holder. Depending on negotiations, the process can last several years and never succeed in arrangements which can demotivate the miners to get formalized.

The new formalization scheme does not address the concession requirements, thus this obstacle remains without solution in the short term. According to Mr. Maximo Gallo, Director of the Mining Formalization Department at the Ministry of Mines, to overcome this issue would imply another legal change and in this sense their actions so far have been limited to the dialogue with some owners to tolerate operations or hire ASGM miners¹³⁰⁵.

Miners working in ASGM can be moderately organized or well-managed companies or cooperatives but can also be individual exploiters. Initiating the formalization process has been an enormous challenge for the miners who are in the need of getting a daily income. Often they do not possess adequate skills and education to be confronted with the professional requirements that the formalization can contain.

The government has been trying to encourage the formalization of informal miners, notably by giving a better status to miners who have started the formalization process (declaration of compromise, stemming from the Decree n° 1105) and by organizing information workshops. Nevertheless, this scheme based on the previous legislative framework could be described as ineffective, taking into account that out of the 70,000 informal miners who started the formalization process under this scheme, 161 individuals managed to complete it, being some of them companies or groups of workers, with an actual number of people of around 3,000.¹³⁰⁶

According to the Minister of Energy and Mines, Mr. Gonzalo Tamayo, the new formalization framework intends to formalize 60,000 small-scale miners in three years¹³⁰⁷, representing a response to the 'discouraging outcomes'. The new scheme also contemplates a direct participation of the Agency for Environmental Assessment and Enforcement (OEFA) in the process. The outcomes of this new scheme are still to be seen, but the concern about formalization and the initiative to improve the former model through simplification, economic incentives and stronger presence of the central government can be evidenced in the restructuring of the formalization process.

¹³⁰⁴ Ministry of Environment (MINAM) (2017).

¹³⁰⁵ Interview conducted with Mr. Maximo Gallo, Director of the Mining Formalization Department at the Ministry of Mines (MINEM) on 20 September 2017.

¹³⁰⁶ Andina (2017).

¹³⁰⁷ Ibid.

Taking into account the complexity of the ASGM context in Peru, the so far limited formalization strategies and the 'discrepancy between the miners' reality on the ground and the legislation requirements, the government, notably through its Ministry of Mines, has to further develop activities to encourage formalization as required by the legislation and the Convention. Workshops are organized to inform on the formalization process and to promote the use of gravimetric methods for the gold extraction¹³⁰⁸. The difficulty is that the ASGM sector is often rather seen as a problem and not as a chance for the ministry in charge of it. The fact that the Ministry of Mines revised the formalization framework can be seen as a step into the direction of the informal miners. However the regularity and the quality of the information campaigns will be determinant for the outcomes of such measures. In the mid-term, a reform or concrete solution regarding the concessions problem is unavoidable in order to effectively promote formalization.

Current legal basis to promote the reduction of mercury pollution and the formalization of the ASGM sector

The following section tries to give an overview of the actual legislation in Peru regarding ASGM and mercury use.

Several decrees and resolutions were implemented during the last 20 years in order to facilitate the formalization of the ASGM and to reduce the mercury emissions. For example the ASGM sector was recognized in 2002 and the formalization procedures were defined. Recently the government of Peru ratified the Minamata Convention and approved the Multi-sectorial Action Plan for the implementation of the Minamata Convention.

List of the predispositions of the current legal framework to address ASGM's formalization and mercury emissions:

Table 50: ASGM's formalization and mercury emissions

Regulatory Disposition	Definition – Scope
Legislative Decrees DL N° 1100 and DL N° 1105 ¹³⁰⁹	<ul style="list-style-type: none"> - Definition of the different types of ASGM (illegal, informal, legal). The differentiation would allow taking different measures depending on the type of the mine. Levels of mining activities are distinguished by two parameters: "size of concession" and "production capacity". - Establishes dispositions for the formalization process of ASGM. Requirements on environmentally sound management (reduction of mercury emissions) and steps to sanitation are part of it. An environmental license is part of the formalization requirements.¹³¹⁰
Law N° 27651 of 2002	<ul style="list-style-type: none"> - Recognition of ASGM in the "Formalization and promotion of small scale mining and artisanal mining"

¹³⁰⁸ Via its General Direction of Mining Formalization (DGFM), especially in the districts of Laberinto and Hupethue in the Madre de Dios region.

¹³⁰⁹ Formalización de la minería en pequeña escala, Guillermo Median Cruz, BGI and SECO, 2014.

¹³¹⁰ Ibid.

Regulatory Disposition	Definition – Scope
Supreme Decree N° 045-2010-PCM	- National Plan (2010) to formalize artisanal mining through the implementation of legal, technical organizational and environmental management tools. A special regulation has been created, which establishes that miners who complete a declaration of compromise until 2012 can be formalized and will not be perceived as illegal until 2017 ¹³¹¹ , deadline up to which they need to be formalized.
Supreme Decree N° 075-2012 –PCM	- Establishes the formation of a permanent multi-sectorial commission to follow up the actions of formalization mining and fight against illegal mining
Legislative Decree N° 1103 and Supreme Decree N° 132-2012-EF of 2012	- Control and supervision of mercury and other chemicals used in ASGM
Supreme Decree N° 029-2014	- Remediation strategy of ASGM
Supreme Decree N° 061-2015-RE	- Ratification of the Minamata Convention
Supreme Decree D.S N° 029-2014-PCM	- Mining sanitation strategy: Consolidation of the formalization; Audits, controls; Remediation of affected areas; social attention and quality of life ¹³¹²
Legislative Decrees N° 1293 and N° 1336 of 2016	- New Legal Framework for facilitating formalization of ASGM miners - DL 1293 establishes a 120 days extension to the above mentioned mining sanitation strategy. - DL 1336 establishes the creation of a working group for the elaboration of a Development and social sustainability Plan for ASGM, including dispositions on health matters.
Supreme Decree N° 010 -2016 of the MINAM	- Multi-sectorial Action Plan for the implementation of the Minamata Convention. The Plan establishes the actions, responsible institutions and timeframe for the actions' implementation, including dispositions regarding sources of supply and trade of mercury, stock identification, mercury-added products and fabrication processes, ASGM, emissions, waste and polluted sites, among others ¹³¹³ . - Specific measures contained in this decree and related to ASGM will be detailed in chapter 3.3.2 "Planned measures".

2.4.2.4 Implementation of the Minamata Convention in Peru - Current status

Ratification process of the Minamata Convention

As briefly mentioned above, the Convention has entered into force on 16th August 2017, after 90 days of reaching its ratification number 50, being therefore its compliance mandatory. The first Meeting of the Conference of the Parties to the Minamata Convention (COP1) was held from 24 to 29 September

¹³¹¹ Interview at MINEM 2015, Master thesis Minamata Convention: Status of Work in Peru, Bolivia and Colombia regarding Mercury Reduction in ASGM, Isabelle Baudin, Fachhochschule Nordwestschweiz, Muttenz 2016.

¹³¹² Interview at MINAM 2015, Master thesis Minamata Convention: Status of Work in Peru, Bolivia and Colombia regarding Mercury Reduction in ASGM, Isabelle Baudin, Fachhochschule Nordwestschweiz, Muttenz 2016.

¹³¹³ MINAM (2016a).

2017 in Geneva, Switzerland, addressing technical, administrative as well as operational and financial matters¹³¹⁴.

Peru ratified the Minamata Convention in January 2016¹³¹⁵. The Peruvian Congress approved the Minamata Convention through the legislative resolution N° 30352. The Supreme decree N° 061-2015-RE establishes that the Convention is ratified, the date of its entry into force, and that the Ministry of Foreign Affairs will publish the integral text in the official journal.

As of its entering into force, the sectors involved in the implementation have to plan the necessary actions with national, regional and local stakeholders, with civil organizations and miners' cooperatives according to their competences. In this vein, the elaboration of the National Action Plan is being initiated. The ministries are expected to collaborate together to develop measures. Each ministry will be responsible for the implementation of activities in its sector. An overview of the main activities and role of each ministry in the implementation of the Minamata Convention in Peru is presented below.

Role of Ministry of Environment (MINAM): it has the national leadership and is in charge of coordinating the process of ratification and implementation. It encourages the development of activities and measures by each ministry, in order to implement the Convention as a whole.

According to the aforementioned Supreme Decree N° 010-2016, approving the Multi-sectorial Action Plan, the Ministry of Environment is responsible for the monitoring and (supervision) of the Plan's enforcement.

Among its activities, the MINAM has the leadership in the elaboration of an inventory of emission and release of mercury in accordance with Articles 8 and 9 of the Minamata Convention.

Role of Ministry of Energy and Mines (MINEM): it is responsible for the ASGM sector. According to the interview in October 2015 (MINEM 2015), MINEM is willing to support the Minamata Convention and the mercury reduction, but the reduction has to be realized in a gradual manner. The MINEM will authorize new technologies if their efficiency reaches 100 % or more in comparison to the currently used technologies.

According to the Supreme Decree N° 010-2016, the MINEM is the main responsible actor for the planned activities related to the prevention of primary extraction of mercury (act. 1 of the multi-sectorial action plan), measures to reduce or eliminate mercury use in ASGM (act. 8), the elaboration of the National Action Plan for ASM (act. 9) and the remedy of sites contaminated by mercury (act. 19).

Role of the National Superintendence of Chemical Inputs and Audited Goods (SUNAT): since July 2014, activities involving the use of sodium cyanide, potassium cyanide and mercury have to be recorded in the "Register for Control of Audited Goods" under the responsibility of SUNAT, in order to have a precise control of the mercury production, imports and stocking in Peru. SUNAT can seizure metallic mercury if realizes shipments without referral guides or documents certificating its origin and purposes.

Role of the Ministry of Production (PRODUCE): the Ministry has been designated by the Supreme Decree N° 010-2016 with the main responsibility regarding the dealing with the excess of mercury from chlorine alkali plants (act. 4 multi-sectorial plan) and with measures for eliminating the use of mercury in their production processes (art. 6), measures for eliminating the use of mercury in the processes of production of vinyl chloride, methylate, polyurethane, among others (act. 7), as well as related with the limit emission values of mercury. PRODUCE is intended to support MINEM with the remediation of contaminated sites.

¹³¹⁴ UNEP (2017).

¹³¹⁵ Supreme Decree N° 075-2012 –PCM of 25 November 2015 "Creation of the Multi-sectorial Permanent Commission for following up on the government actions regarding illegal mining and the formalization process", Official Journal 2012, available on the internet at <http://busquedas.elperuano.com.pe/normaslegales/crean-comision-multisectorial-permanente-con-el-objeto-de-re-decreto-supremo-n-075-2012-pcm-815345-1/>.

Role of the Ministry of Health (MINSA): the MINSA has also been contemplated in the implementation of the Minamata Convention in Peru, in relation to the Prohibition on the manufacture, import and export of products with added mercury (e.g. dental amalgam, act. 5 multi-sectorial plan); mercury waste management (act. 17), measures to control mercury releases (act. 13); support to MINEM in the elaboration of the of the National Action Plan for ASM (act. 9).

Minamata Initial Assessment

Progress of the work

MINAM is pursuing in 2016 several activities linked to the Mercury Initial Assessment (MIA), as well as planning the development of the NAP.

According to an interview conducted in August 2017 with the MINAM representative Vilma Morales¹³¹⁶, a joint regional initiative led by the Basel Convention Coordinating Centre for Latin America and the Caribbean Region (BCCC), based in Uruguay and including other nine Latin American Countries¹³¹⁷ is carrying out the elaboration of a document on “approaches to managing mercury risks in Latin American and Caribbean countries”, which can be considered a sort of MIA in the sense that this initiative entails the development of mercury inventories, prompting also the exchange of experiences among the participant countries with regards to these inventories¹³¹⁸.

Additionally, an initiative of GEF, UNIDO and Artisanal Gold Council regarding the support to the elaboration of the National Action Plan on Mercury for the Artisanal and Small-Scale Gold Mining Sector is expected to contribute to the Minamata Initial Assessment through a programmed country analysis which will include a baseline inventory of mercury use and mining practices¹³¹⁹. In the same vein, the quantitative results stemming from the pilot implementation in the framework of a GEF project in collaboration with UNDP (GEF GOLD Peru) would be made available as input for the MIA; according to the national coordinator for the project’s inception phase Javier Camargo¹³²⁰. The overall contribution of both projects to the Minamata implementation in Peru will be explained more in detail in the following section (see Section 2.4.2.5).

National Action Plan

General aspects

According to the Minamata Convention, parties that have artisanal and small-scale gold mining on their territory shall develop and implement a national action plan (NAP) in accordance with requirements described in Annex C of the Convention. Parties will have five years to draw a NAP and to begin its implementation after the Minamata Convention has been ratified and entered into force. The elements described in Figure 21 have to be part of the NAP.

By provision of the intergovernmental committee of the Minamata Convention, the guidance developed under the United Nations Environment Programme (UNEP) Global Mercury Partnership in 2011¹³²¹ served as the basis for the preparation of guidance on the development of National Action

¹³¹⁶ Vilma Morales is the Coordinator of management of contaminated and degraded soils of the General Directorate of environmental quality of the Ministry of Environment.

¹³¹⁷ Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Venezuela, Uruguay and Paraguay.

¹³¹⁸ Interview conducted with Ms. Vilma Morales from MINAM on the 28 August 2017.

¹³¹⁹ Information about projects of the Artisanal Gold Council are available at <http://www.artisanalgold.org/our-projects/southamerica/> and <https://www.thegef.org/project/national-action-plan-mercury-artisanal-and-small-scale-gold-mining-sector-peru>.

¹³²⁰ Interview conducted with Mr Javier Camargo, National Coordinator for the inception phase of the project GEF-GOLD (*Gestión ambientalmente adecuada del mercurio en la minería artesanal y pequeña escala de oro*) in Peru on 20 August 2017.

¹³²¹ UNEP (2011).

Plans on artisanal and small-scale gold mining. A first version of the guidance document has been revised and its ongoing use will be discussed at the occasion of the First Conference of the Parties to the Minamata Convention from 24 to 29 September 2017.

The use of the guidance document will ensure that NAPs elaborated are consistent with the requirements of the Minamata Convention. It consists basically of the major steps to develop a NAP, which ranges from a) the establishment of a coordinating mechanism & organization process, b) the development of a national overview to the ASGM sector, and c) the setting up of goals, objectives and targets, to d) the formulation of an implementation strategy, e) development of an evaluation process and f) endorsement & submission of the respective NAP. The guidance document also contains the main considerations and questions to take into account when formulating the goals and implementation strategy.

According to the guidance document, the coordinating mechanism to be established (if no pre-existing institution to perform this role) should include the participation of all concerned national entities on a broad sense (environment, mining, finance, trade, health, labour, etc.). Additionally to this working group, a stakeholder's advisory group should be created, including among others mining associations, academia, third and private sector.

Figure 21: Content of National Action Plan according to Minamata Convention



Source: UNEP (2013)¹³²²

Progress of the work

In a first step, the Peruvian NAP will focus on the following topics¹³²³:

- ▶ Promotion of the formalization of ASGM: The new scheme of formalization, attempting to streamline and simplify the formalization process, will be considered for the NAP and complemented by further measuring-initiatives based on its preliminary results.
- ▶ Promotion of clean technologies: strategy of sanitation.
- ▶ Development of health strategies.

GEF, UNIDO and the Artisanal Gold Council (AGC) are supporting several countries -including Peru, to prepare their National Action Plan –NAP for the Artisanal and Small-Scale Gold Mining Sector (2016-2018). The project in Peru involves the participation of the Ministries of Environment, Energy and

¹³²² UNEP (2013b): "Chemical and Waste", available on the internet at <http://web.unep.org/globalmercurypartnership/>.

¹³²³ Interview at MINAM 2015, Master thesis Minamata Convention: Status of Work in Peru, Bolivia and Colombia regarding Mercury Reduction in ASGM, Isabelle Baudin, Fachhochschule Nordwestschweiz, Muttenz 2016.

Mines, Health, Economy and Finance as main counterparts and providing technical support to the project implementation agents in their respective fields. The project was submitted in April 2016 and has an expected duration of 24 months. Along with the joint preparation of the NAP, the project intends also to provide a basic situation evaluation and inventory/characterization of the ASGM sector mercury use and mining practices that will assist in the design of future interventions to meet the obligations of the Minamata Convention.

In particular, the analysis will provide the basis for identifying national objectives, as well as setting targets and strategies to eliminate worst practices and facilitate the formalization of the sector; in line with the dispositions of the Convention's Annex C and the guidance document for the NAP. Finally, the project intends to support the governments to endorse their NAPs, define schedules for their implementation and officially submit them to the Minamata Convention Secretariat¹³²⁴. According to the MINEM Representative Mr. Maximo Gallo, there has been an initial collaboration between the Ministry and the GEF-UNIDO-AGC project during its inception phase, notably through the detailed presentation of the renewed formalization strategy adopted by the Peruvian government. The components of this strategy will be taken into consideration and shall be contained within the National Action Plan. Once finalized, the NAP should be analysed and approved by the ministries concerned, notably MINEM¹³²⁵.

As the guidance document recommends, a coordinating mechanism should be in place. With an eye on the Peruvian case, with the aim of monitoring the governmental actions regarding illegal mining and the formalization process, an inter-ministerial group (*Comisión Multisectorial Permanente*) has been created since 2012¹³²⁶, including representatives from the ministries of mines, environment, culture, internal affairs and defence, regional government authorities and the SUNAT a meeting on a regular monthly basis. It is intended that the multi-sectorial permanent commission acts as an institutional instance in charge of articulating, promoting and following-up on the implementation of the ASM formalization actions, having the ability of convening the different actors involved. This coordination forum of the actions regarding ASM, led by the Ministry of Mines, would be the natural instance for structuring the actions and steps regarding NAP development and its implementation, avoiding the duplication of efforts¹³²⁷.

Regarding the endorsing and submission of the National Action Plan, it is worth mentioning that the Convention prescribes that "each country must submit its NAP no later than three years after the Convention enters into force (16 August 2017), or notifying the secretariat that it has more than insignificant ASGM". Peru has manifested in the Multi-sectorial Action Plan December 2017 as a first tentative date for the conclusion of the NAP elaboration.

In this sense, it is important to note that NAP, as an official document to be submitted by the Peruvian document to the Secretariat, has to be formally approved by the Executive through a legal instrument (probably a Supreme Decree), on this basis, it has to be endorsed and accepted by each of the implicated sectors.

The involvement of stakeholders and notably small-scale miners in the implementation and continuing development of NAP would be a crucial matter in countries such as Peru, where most of the ASGM communities are not tightly connected to the urban social structure and deep-rooted *modus operandi*

¹³²⁵ Interview conducted with Mr. Maximo Gallo, Director of the Mining Formalization Department at the Ministry of Mines (MINEM) on 20 September 2017.

¹³²⁶ Supreme Decree N° 075-2012 –PCM: "Creation of the Multi-sectorial Permanent Commission for following up on the government actions regarding illegal mining and the formalization process" Official Journal (2012), available on the internet at <http://busquedas.elperuano.com.pe/normaslegales/crean-comision-multisectorial-permanente-con-el-objeto-de-re-decreto-supremo-n-075-2012-pcm-815345-1/>.

¹³²⁷ Interview conducted with Mr. Maximo Gallo, Director of the Mining Formalization Department at the Ministry of Mines (MINEM) on 20 September 2017.

in the gold extraction activities could hinder or slow-down the process of the substantial reduction and progressive elimination of the mercury use in ASGM.

Planned measures (time horizon, outcome, who has the lead, finance)

Peru developed a multi-sectorial Action Plan for the implementation of the Minamata Convention (Supreme Decree N° 010 -2016 of the MINAM) which establishes the actions, responsible institutions and timeframe for the actions' implementation, including dispositions regarding sources of supply and trade of mercury, stock identification, mercury-added products and fabrication processes, ASGM, emissions, waste and polluted sites, among others. Two measures concern the activities of the gold extraction in the artisanal and small scale mining and are described in the table below. These activities will be precisely defined in the NAP.

Table 51: Measures concerning ASGM activities

No.	Measures	Institutions concerned by the measures	Deadline
8	Measures to reduce or eliminate the use of mercury and mercury compounds, and the emissions and liberation of mercury in the air.	Ministry of Energy and Mines Ministry of the Environment Ministry of Economy and Finance Presidency of the Council of the Ministries	December 2016
9	Elaboration of a National Action Plan for ASGM	Ministry of Energy and Mines Ministry of the Environment Ministry of Health Ministry of Economy and Finance Customs authorities (SUNAT) Presidency of the Council of the Ministries	December 2017

Additionally, the multi-sectorial plan includes other general measures in line with what was established in the Convention and involving ASGM, such as:

- National inventory of sources, stocks, releases and releases of mercury,
- Remediation of sites contaminated by mercury.

On 16 March 2017, a multi-sectorial meeting was held, convened by MINAM to present progress in implementing the plan.

Progresses have been reported by MINAM regarding the inventory of sources, stocks and releases of mercury, including the ASGM sector¹³²⁸.

Regarding the funding that will be dedicated to support the application of the measures and especially the implementation of the National Action Plan, it is important to note the initiative of consolidating a fund for a comprehensive mining formalization process (*Fondo para el Proceso de Formalización Minera Integral*). According to MINEM, such a fund has been formulated and submitted for the approval of the Ministry of Economy and it is expected to have a reply by the end of the year, in order to be able to start its execution at the beginning of 2018. In particular, the fund will be used for supporting the training, awareness-raising activities, support and guidance to the miners registered in the new formalization process to meet the criteria required for getting fully formalized after the three years term.

¹³²⁸ Ministry of Environment (MINAM) presentation held at the workshop "Progresses on the Minamata Convention Implementation" Lima, 09 March 2017.

It is expected that this fund receives contributions not only from governmental sources, but also from the private and third sectors, as well as of international cooperation projects¹³²⁹.

Activities to support the reduction of mercury pollution in the mines and to the implementation of the Minamata Convention

Besides the activities realized by the government of Peru to reduce the mercury emissions in the ASGM sector, the complex issue is being addressed by several international initiatives. These activities are necessary due to the lack of financial means of the Peruvian government. The Ministries are expecting the support of the international institutions to realize some activities planned. The Convention itself foresees financial support for the countries in their implementation of the convention. This chapter gives an overview of the different initiatives realized by non-governmental organizations and international institutions.

UNITAR: the Chemicals and Waste Program of the United Nations Institute for Training and Research is supporting Peru with the ratification and implementation of the Minamata Convention. A recent project had the aim to accelerate the readiness of the country towards the ratification of the Convention. The objective was to assist Peru to identify the most adequate ways and initial steps to ratify the Minamata Convention, and to address any potential barriers to ratification.

UNIDO: the United Nations industrial development organization is partnering with Ecuador and Peru in a GEF-financed project to work together to promote integrated measures for minimizing mercury releases from Artisanal Gold Mining through the “Sin Mercurio” project, implemented in the trans-boundary Puyango-Tumbes watershed.

In the framework of the project, several training workshops with local authorities were held to support the formalization of miners and to establish the use of safe and affordable mercury-free methods to extract the gold¹³³⁰.

GEF: The GEF has approved in October 2016 the Global Opportunities for Long-term Development (GOLD) in the Artisanal Small Gold Mining Sector program. Through the GOLD program, the GEF will provide funds to support artisanal and small-scale enterprises through the creation of policies and market incentives, as well as connecting them to supply chains and markets which use less or no mercury in the extraction of gold. It will align with the objectives of the Minamata convention.

The project is currently on its inception phase (until December 2017) and focuses on the following aspects:

- ▶ Mercury emissions reduction, pilot project in 3 regions: Puno, Arequipa and Piura
- ▶ Training/awareness raising - including on available financial instruments
- ▶ To allow miners of ASGM to access technologies that decrease the use of mercury (notably gravimetric separation)

The GEF Gold project is looking for collaborating with others initiatives that are already working on this issue.

Fairmined: it was founded in Colombia by the Alliance for Responsible Mining (ARM). It is dedicated to ASGM and gives incentives to mining organizations to become an economically, technologically and environmentally viable enterprise. Two types of certification exist: Fairmined Certification and Fairmined Ecological Certification. Once certified, a mining organization receives a fair income due to the

¹³²⁹ Interview conducted with Mr. Maximo Gallo, Director of the Mining Formalization Department at the Ministry of Mines (MINEM) on 20 September 2017.

¹³³⁰ See for information about the “Sin Mercurio” project the project’s website: <http://sinmercurio.com/index.html>.

guarantee that the gold will be sold higher than 95% of international prices. In addition it receives a Fairmined Premium which enables corporate and social investments.

In order to begin the certifying process, a mining organization needs to have a legal title (to be formalized) and must comply with entry-level requirements for Fairmined Standards. This requirement can be a barrier for ASGM. Recognizing the difficulty to which ASGM sector is exposed, ARM proposed a range of supports for miners like training, capacity building and projects to help mining communities to get formalized. The standard is being actualized according the international convention, which means that the requirements, with whom the miners' organizations have to comply, are constantly evolving. In Peru, four mining organizations have obtained the Fairmined certification so far, including the first alluvial mining association to be certified in the country (*Central de Cooperativas Mineras - CECOMIP* in the Puno region)¹³³¹.

Fairtrade: it is the European counterpart, well known in Switzerland under the Max Havelaar Foundation.

In 2009, Fairmined and Fairtrade developed a standard in partnership but decided in 2013 to decouple the labels and to continue to work independently. The Peruvian gold mining organization *Minera Aurífera Cuatro de Enerno* (MACDESA) in Arequipa has acquired the Fairtrade certification and this initiative is also working with other pilot groups in the country¹³³².

The Better Gold Initiative (BGI): it has been launched in 2013 to encourage and to increase, through a public-private partnership, the transparency of the Gold trade chain. The objective is to build a simple market mechanism that honours compliance of producers with standards on traceability, accountability, labour conditions, environmental, social, governance and community relations performance. The BGI approach consists of four components:

- ▶ Producers: support to sustainable gold supply through technical assistance and capacity building for ASGM
- ▶ Institutions: Strengthen certification schemes to broaden the impact of ASGM certification
- ▶ Policy: Policy dialogue on ASGM related issues and extension strategy on national and international level
- ▶ Demand: Multi-Stakeholder platform on sustainable gold and demand matching in Switzerland

The project is a public-private partnership between SECO and the Swiss Better Gold Association (SBGA).

The main goal is to enhance the market access to miners that respect in particular social and environmental standards. Through the SBGA, companies like Swiss refiners and jewellers committed themselves on a voluntary basis to buy gold coming from certified gold mines. A Premium is dedicated to CSR projects (1\$ per gram). SBGA is composed of members from Swiss refiners and jewellers.

Through this initiative, miners of ASGM should have better access to the gold market and receive a better price, all while complying with social and possibly environmental standards and requirements. Miners are supported and motivated to get certification.

The BGI is currently in its second phase and is expanding its activities to Bolivia and Colombia.

Canadian Cooperation and MEGAM: The MEGAM Project has been launched in December 2015 and its objective is the improvement of the environmental management of mining and energy activities in Peru. The duration of the project is 6 years and it includes the following components: legislative framework, the improvement of the inter-institutional coordination and of the integrated management

¹³³¹ Alliance for Responsible Mining (2016): "CECOMIP, the first alluvial mining cooperative to be Fairmined certified in the world", available on the internet at <http://www.responsiblemines.org/noticias/cecomip-la-primera-cooperativa-de-mineria-aluvial-de-oro-a-nivel-mundial-en-obtener-la-certificacion-de-mineria-justa-fairmined/>.

¹³³² See for information about the participating miners <http://www.fairgold.org/producers/> (last accessed on 28.02.2019).

of the information, the improvement of the institutional capacity of the intern and operative management in the concerned ministries (among others Ministry of the Environment, Ministry of Energy and Mines). One of the project's areas of intervention within its technical assistance plan is to "contribute to the mining activities formalization process"¹³³³ being thereby of relevance for ASGM. The regions of intervention of the project are Arequipa, Apurimac, La Libertad, Madre de Dios, Piura and Puno, being most of them characterized for a significant importance of ASGM.

Conclusion of the chapter

Through its multi-sectorial Action Plan, Peru has set an important legal basis (Supreme Decree N° 010 -2016 of the MINAM) which allows the different concerned ministries to start the elaboration of the NAP and to define the concrete actions. The elaboration of the NAP has been started with support of international institutions and the organizations GEF and AGC and a first draft is planned for December 2017 according to this multi-sectorial Action Plan. Some concrete actions in line with it have been taken, including a new formalization scheme which will be endowed with a fund and the decision of endorsing an existing inter-ministerial group on formalization issues for structuring the actions and steps regarding NAP.

However, the coordination among the ministries and the external support (GEF-AGC) is not clear at this point. Furthermore the involvement of the ASGM miners and other local stakeholders seems to be not clearly defined at this stage.

2.4.2.5 Experiences with Minamata Implementation

Relevance of the instrument to Peru for reducing mercury pollution by ASGM

The Minamata Convention is perceived as an opportunity to reduce the use of mercury in the ASGM sector which is of urgent character in some regions where mercury is causing severe damages. It gave an important impulse to address the environmental challenges and comfort the activities of the MINAM which received a political support through the ratification.

Peru has been addressing the issue for many years as described under Section 2.4.2.4, by supporting the formalization process in the ASGM sector and providing the miners with technologies reducing the mercury emissions. The international convention certainly confirms the measures already taken by the government and encourages strengthening its capacity on this issue.

With the convention, diverse mechanisms are created to support governments with capacity building, exchange of experience, networking between the countries facing similar challenges and financial support which is not insignificant. Peru can take strong advantage of this dynamics to tackle the issue.¹³³⁴

After the ratification of the convention, the following first advances and positive results can be observed:

- ▶ The acceptance of a multi-sectorial action plan for the implementation of the convention which defines, for each of the components of the convention, the responsible sectors and ministries for their implementation.
- ▶ Definition of the responsible institution for the elaboration of the National Action Plan for ASGM according to art. 7 of the convention and of the concerned institutions.
- ▶ The collaboration with the GEF-UNIDO and the Artisanal Gold Council for the elaboration of the National Action Plan.

¹³³³ MEGAM (2017).

¹³³⁴ See for information about the ratification <http://retc.minam.gob.pe/novedades/peru-ratifica-convenio-minamata> (last accessed on 28.02.2019).

- ▶ Although the actualization of the legislation for the formalization is not directly linked, it can be supposed that the ratification of the Convention was a motivator for the elaboration of the New Legal Framework approved in 2016 which aim to facilitate the formalization of ASGM miners.

Finally, the Convention has the positive effect that the issue of the reduction mercury emissions in ASGM stays on the political agenda.

Challenges to implementation of the Convention

The Convention is certainly giving an important political impulse as well as an important technological and financial support to Peru in addressing the mercury reduction in ASGM. The following challenges can be identified:

Technology and awareness raising

- ▶ According to the national coordinator of the afore-mentioned GEF GOLD project, Mr. Javier Cargamo, one of the main general challenges for the implementation of the measures attempting to reach the Minamata Convention's objectives is the deep rooted tradition of gold extraction via the same techniques (using mercury) in some of the country's regions. That is for instance the case of Arequipa, one of the pilot regions of the GEF project. This factor implies a challenge for the awareness raising and educational campaigns favouring the using of gravimetric techniques and warning about the implications of mercury use, since the ASGM miners can be more reluctant to change their local extraction customs and hence slow down the whole process.
- ▶ The government has to promote the use of gravimetric methods by developing a financial mechanism. At this stage, it appears that there is no financial support for the miners to obtain the adequate technologies. The comprehensive fund for supporting the formalization process has still to be consolidated and ensure that, among the priorities to be financed, the use of technology methods for reducing mercury use has to go beyond its mere promotion. The costs of the proposed technology are relevant as miners often do not have the necessary financial resources to invest in technologies. Mining operation is often a subsistence activity.
- ▶ Development of solutions and technologies should match with the reality of the ASGM sector and be adapted to the culture of the miners. For example miners want their gold immediately and are not used to wait a few days to have their gold processed. In this sense, the technology has to be fast.
- ▶ Accessibility of the method: miners often do not have sufficient education to handle a technology based on complex chemistry processes, therefore the method needs to be simple and its use sufficiently explained.
- ▶ Water is as well an essential element. Methods that are possible in Colombia might be not be adaptable to in Peruvian region due to the lack of water resources.

Formalization

- ▶ The unsuccessful attempt made by the previous formalization scheme sends a heads-up to the government, notably to the Ministry of Mines, regarding the difficulty of setting up incentives for formalization and the need of streamlined processes, adapted to the reality of ASGM, and effective backing and follow up/monitoring of the compliance processes of the ASGM miners registered in the formalization program. The new scheme (via inscription to the Mining Formalization Registry –REINFO) shall assure that the instruments and procedures are broadly disseminated and clearly understood by the interested.
- ▶ Requirements of the formalization procedure do partly not match with the reality of the ASGM miners regarding the mining titles. Often concessions are already distributed to mining companies or individual persons and thus not available anymore for the artisanal miners.

- Culture of individualism: miners are working in an individual manner and are often not used to be organised in workers associations or to work as a company. Engaging a formalization process is therefore an important challenge for the miners.

Capacity building

- Awareness raising in all the ASGM areas including remote areas. Workshops are organised to encourage the formalisation however at the moment they appear to be sporadic and not coordinated with others activities realised by international initiatives like other pilot projects.
- Capacity building to miners cooperatives and associations

Financial and human resources for the implementation

- There is a strong reliance on funds coming from international cooperation. No additional funds nor staff or training has been assured by the government due to the ratification of the Convention. There is the same ministerial staff with additional tasks/responsibilities, so the time dedication for the coordination and monitoring of the activities is limited. Inter-ministerial working groups are dedicated to transversal issues –such ASGM and not only to the Minamata Convention.

Coordination of the diverse measures and activities

- The effective coordination among all institutions involved in the process of the implementation of Minamata and the continuous engagement of all of them (SUNAT, MINEM; MINAM, PRODUCE, etc.) is a crucial challenge. This implies the harmonization of their agendas concerning the priority given to the implementation of the measures in line with the Convention.

Implementation of the Regulation

- The ASGM sector implies a difficult economic and social context. The implementation of the regulation –law enforcement, is therefore challenging.

Limitations of the Convention: Enforcement and control of illegal mercury imports and gold exports

The Convention is young and it is certainly too early to extract lessons from the first implementation measures or support mechanisms. So far, the following general limitations can be noted:

- The Convention offers a framework with mechanisms to encourage countries to address the mercury emissions issue in ASGM. Countries have to elaborate a National Action Plan especially for this sector with measures to formalize the miners and to promote the use of technologies that reduce the emissions and releases of mercury. However, the Convention does not set any phase-out date for the use of mercury in the ASGM sector.
- Furthermore, the politic of the government is per evidence determinant in the application of the measures defined in the National Action Plan, the convention only offers a mechanism. Advances will only be possible if the government gives the means to build its capacity and to implement the measures.

Some considerations for successful implementation

Addressing mercury emissions in ASGM requires a holistic long term approach as the issue is not only related to technological and environmental aspects, but as well to economic, social and cultural aspects. The development of integrated measures is therefore primordial.

The following needs can be defined:

- ▶ **Suitable formalisation procedure:** Land tenure remains for instance one of the biggest challenges, even under the newly adapted scheme. Formalisation requirements have to take into account the reality of the ASGM miners and the often impossibility for them to get a concession. A better understanding of the reasons why miners have not taken the actions to get effectively formalized is crucial, along with finding a solution for the concessions aspect. Alternatives should be elaborated in order to make the formalisation accessible. It would be essential that miners would be invited to actively participate in the formalisation measures and decisions in all steps, including their conceptualisation, for instance in the inception of training modules or in case of revision of the formalisation of the legal framework.
- ▶ It is important that the government takes **ownership** of the National Action Plan. An efficient collaboration between the government and UNIDO who are supporting the realization of the NAP is very important. Furthermore, strong commitments of the ministries to take their responsibilities for the implementation of the activities planned in the National Action Plan.
- ▶ A **strong collaboration and smooth dialogue between the government and the miners** in order to reduce the gap between the requirements made by the government and the possibilities of the ASGM sector. With a view to getting a global picture of the miners' needs for finding solutions adapted to their reality, regular field work is a necessity.
- ▶ **Effective coordination** between the different activities realized by the government and external initiatives in order to use synergies and reinforce a common strategy. In the same line, not only a smooth coordination of the activities and initiatives on a broad sense, but also among all institutions involved in the process and its continuous engagement is an essential condition of a favourable Convention implementation.
- ▶ **Continuity and complementarity of the projects** is necessary. A mechanism of follow-up of all related/overlapping projects should be put into place by the government in order to avoid double efforts. The synergy among the different projects should be strengthened.
- ▶ **Capacity building in human resources** by the ministries which are implementing the Convention as well as by local authorities.
- ▶ A **technical support** for the miners offered by the MINEM is necessary. Furthermore the technology recommended has to be simple and fast to be accepted by the miners. The method's recommended technology (mostly gravimetric methods) should be inexpensive and easily accessible.
- ▶ A **financial support to invest in the adequate technology** has to be possible for the miners. They need to have a financial capital or access to financing in order to improve the technology used.
- ▶ **Awareness raising** on a long-term and regular basis on mercury emissions and their damages to miners, local communities, local authorities and other stakeholders. Targeted awareness raising campaigns are important in order to correctly address each different concerned group.
- ▶ Better control of the produced gold. Further work is needed to **stop illegal exports of gold**, contributing also this way positively to the mercury use reduction.
- ▶ Possibilities for the **neighbouring countries to learn from each other** with the creation of a platform to share experiences and lessons learned to reduce the mercury emissions in ASGM.

2.4.2.6 Conclusions

The Minamata Convention has certainly paved the road for a better understanding of mercury as a threat for human health and the environment and its scope in the ASGM sector, fostering rapid action initiatives and a visible engagement at the multilateral level from different governments where the sector has a significant role. In the case of Peru, the government has acknowledged the Convention as an opportunity for backing the governmental efforts for reducing the use of mercury in ASGM, supporting the application of better environmental practices and techniques, prioritizing regions highly

affected by the mercury use in the sector, such as Madre de Dios and Puno¹³³⁵. The ratification of the Convention, accompanied by actions in the institutional and legal framework are some of the most notable steps given towards the elimination of mercury use in ASGM in Peru at the present stage.

Bearing in mind the challenges and considerations for successful implementation addressed in the previous chapters, the way forward should involve a higher coordination and engagement among all authorities and instances concerned, including the ASG miners, not only at the national level but as well in relation to the international initiatives on the matter and other countries' authorities in the region, exploiting the potential of cross-country learning. The Conference of the Parties allowed for positive predictions regarding the strengthening of these engagements, reinvigorating the process and providing further guidance on the implementation of the Convention, as in the case of the preparation of national action plans for artisanal and small-scale gold mining¹³³⁶. Ultimately, the effective coordination and commitment for staying on the right track will naturally depend on the countries' own actions, but the COP can be seen as a driver of the prevalence of the matter in the political agendas.

On the international stage, the COP can encourage the facilitation of countries' internal acceptance and/or ratification of the Convention, as well as a reinforced visibility of the Minamata Convention objectives via media coverage and the participation of observer organizations (including third sector institutions and academia)¹³³⁷.

The outlook for Peru for the implementation of the Convention in the ASGM sector will depend on the advances regarding the consolidation and overall the effective implementation of the National Action Plan, implying a clearer and collaborative work between the public entities concerned themselves and with the project UNIDO-GEF-AGC on its role of supporting the elaboration of the NAP. In this sense it is worth mentioning that the government should nevertheless maintain its primary responsibility in the effective implementation of the Convention in the country –including the NAP, acting this and other cooperation projects merely as support instruments for moving forward with the process. Concerning the consolidation of the NAP, it could be said that at least in theory it is well under way if the approved Multi-sectorial Action Plan is well applied. Nevertheless, apart from the challenges directly related to the NAP implementation itself described in chapter 4.3, some aforementioned threats could hinder its implementation if not addressed simultaneously and effectively by the Peruvian government, notably the illegal mining and the illegal trade (imports) of mercury used in ASGM activities.

2.4.3 Towards Sustainable Mining (TSM) of the Mining Association of Canada

2.4.3.1 Introduction & Context

MAC and Sustainable Mining in Canada

Founded in 1935, the **Mining Association of Canada (MAC)** is the national organization and voice of the Canadian mining industry. It comprises companies engaged in mineral exploration, mining, smelting, refining and semi-fabrication. The 42 full members¹³³⁸ account for the majority of Canada's output of metals and major industrial materials. In addition to the full members, another 54 associate members support MAC in its advocacy work to promote the interests of the industry nationally and internationally. To that effect, the association works with governments on policies affecting minerals, informs and

¹³³⁵ See for information about the ratification <http://retc.minam.gob.pe/novedades/peru-ratifica-convenio-minamata> (last accessed on 28.02.2019).

¹³³⁶ UNEP (2017).

¹³³⁷ UNEP (2017a).

¹³³⁸ Mining Association of Canada (MAC): "Our members", available on the internet at <http://mining.ca/members-partners/our-members>.

educates the public on the value mining brings to the economy and the daily life of Canadians, and promotes collaboration. MAC works closely with provincial and territorial mining associations and other industries, as well as with environmental and community groups across Canada.¹³³⁹

Canada considers itself a world leader in sustainable mining, a perception that has been fostered through the introduction and evolution of MAC's Towards Sustainable Mining (TSM) Initiative, an externally-verified performance system for sustainable mining practices which has now been adopted by Finland, Argentina and Botswana. Furthermore, the framework has earned a Globe Award for Environmental Excellence.¹³⁴⁰

Established in 2004, **TSM's main objective is to enable mining companies to meet society's needs** for minerals, metals and energy products in the most socially, economically and environmentally responsible way.¹³⁴¹

2.4.3.2 Historical context and specific governance challenges

Context and governance challenges that led to TSM standard

In 1992, the **United Nations Conference on Environment and Development (UNCED)** in Rio de Janeiro brought worldwide attention to environmental issues and the acceleration of environmental damage. The Rio conference sparked global interest and resulted in increased public awareness and governmental responses. As the public learned more about how certain activities affected the health of their communities, more citizen groups and NGOs (such as Mining Watch, one of the first mining-focused NGOs in Canada) were established. These began to exert pressure not only on governments but on industry as well so that during the 1990s the mining industry in Canada came under increasing public scrutiny.¹³⁴²

Pressure by civil society and NGOs grew further when several tailings dams failed in mining operations outside Canada that were operated by Canadian mining companies. In 1992, the Canadian Broadcast Corporation (CBC) produced a television news special titled **"The Ugly Canadian"** which portrayed the actions of Canadian mining companies abroad, from environmental damage from tailings spills in the Philippines, Guyana, and Spain, to human rights abuses in Indonesia and Papua New Guinea.

At the same time, the 1990s were also a time where **aboriginal issues** moved to the forefront of the political agenda and several Supreme Court decisions consolidated the role and rights of aboriginal people with respect to mining projects. In fact, one could argue that a discussion of the context and evolution of sustainable mining in Canada should take into account the important role Canadian aboriginal peoples have played and continue to play in shaping stakeholder expectations and discourse on responsible and sustainable mining.

As a result of the changes in the 1990s, companies needed to become more accountable for their own practices and social and environmental impacts. At the time, MAC saw the need to take action and conducted various **stakeholder dialogues** and interviews that showed that there was an actual need to improve performance. MAC also realized that management and risk management systems needed to be formalized in order to achieve performance improvements. According to MAC, the goal then became to develop a framework that would help the industry improve in order to regain credibility and meet the evolving and increasing expectations of a more critically aware public.¹³⁴³

As a first step, MAC made a suggestion for a multi-stakeholder process to the provincial mining ministers at their annual conference in Whitehorse in September 1992. The ministers agreed to become co-

¹³³⁹ Mining Association of Canada (MAC) (2017a).

¹³⁴⁰ See for information on TSM: <http://mining.ca/towards-sustainable-mining> (last accessed on 28.02.2019).

¹³⁴¹ Mining Association of Canada (MAC) (2017).

¹³⁴² Mining Association of Canada (MAC) (2017).

¹³⁴³ Comments are based on phone interview with Tara Shea, August 2017.

sponsors and trustees of the process and named it the **Whitehorse Mining Initiative**. Representatives of five sectors of society agreed to participate. They were the mining industry, senior governments, labour unions, Aboriginal peoples, and the environmental community. This initiative was launched to provide support, assistance and advice to the mining industry within a non-adversarial framework to help it develop a new strategic vision and to create solutions for the 21st century.

Full-scale discussions began in February 1993 and, in August 1994, culminated in the *Whitehorse Mining Initiative Leadership Council Accord*¹³⁴⁴ The significance of the Whitehorse Mining Initiative was, that, for the first time, the mining industry engaged in a multi-stakeholder dialogue process and allowed for more transparency and openness, when before the industry was “closed off” to the public and public support for projects was taken for granted.

Albeit different in their approach, the Whitehorse Mining Initiative can be considered to be the direct precursor to the **Towards Sustainable Mining Initiative (TSM)** launched by MAC in 2004. An analysis published in the *Journal of Cleaner Production* in 2011 investigated the changing approaches towards sustainable development from the Whitehorse Mining Initiative (WMI) and to the TSM framework. The report analysed whether or not meaningful progress was made towards more sustainable practices over that time period and concludes that MAC’s approach to sustainable development “has shifted from an ambitious and holistic partnership involving a range of stakeholders to a focused, member-specific agenda that addresses targeted performance issues” and that “the transition to TSM was based on lessons learned through working with the Whitehorse Mining Initiative and subsequent efforts.”¹³⁴⁵

It seems worth mentioning that around the same time the **International Council on Mining and Metals (ICMM)** was formed, whose core mandate is the development of good practices around community engagement and environmental performance. Even though both TSM and the ICMM guidelines were developed roughly around the same time they are very different in structure and they were developed independent of each other. However, today MAC is part of ICMM as a national association and MAC staff have contributed to ICMM working groups in the past. MAC has also endorsed ICMM’s position statement on climate change (2009) and most recently, MAC revised its water stewardship policy to be completely aligned with ICMM. Today, there is also an overlap in membership, which means that a number of companies that are involved in TSM are also involved in ICMM.

Overall, this brief discussion indicates that during the 1990s there was a general push for change within the industry that reached beyond Canada as well. Since the 1990s sustainability and corporate social responsibility have become mainstream terms widely accepted within industry, government and the public.

Brief review of other initiatives in Canada for responsible mining

In 2009, the federal government launched its first Corporate Social Responsibility strategy “Building the Canadian Advantage: A Corporate Social Responsibility Strategy for the Canadian Extractive Sector Abroad”, which was enhanced in 2014 and is now called “**Doing Business the Canadian Way: A Strategy to Advance Corporate Social Responsibility in Canada’s Extractive Sector Abroad**”. The strategy “clearly demonstrates the Government of Canada’s expectation that Canadian companies will promote Canadian values and operate abroad with the highest ethical standards. It also outlines the Government’s initiatives to help Canadian companies strengthen their CSR practices and maximize the benefits their

¹³⁴⁴ The Accord stated ten key objectives: 1. Improving the investment climate for investors, 2. Streamlining and harmonizing regulatory and tax regimes, 3. Ensuring the participation of Aboriginal peoples in all aspects of mining, 4. Adopting sound environmental practices, 5. Establishing an ecologically based system of protected areas, 6. Providing workers with healthy and safe environments and a continued high standard of living, 7. Recognition and respect for Aboriginal treaty rights, 8. Settling Aboriginal land claims, 9. Guaranteeing stakeholder participation where the public interest is affected, 10. Creating a climate for innovative and effective responses to change.

¹³⁴⁵ Fitzpatrick (2011).

investments can provide to those in host countries.”¹³⁴⁶ With respect to the implementation of the strategy, the Canadian government is taking a multi-stakeholder approach. Consequently, in 2016, Global Affairs Canada (GAC) “engaged in a series of informal discussions with MAC, the Prospectors & Developers Association of Canada and NGOs [...] to look at how the government could further strengthen the strategy”. Additionally, MAC’s engagement with the government “emphasized the need to fully implement the changes made to the strategy in 2014 to improve communications and to strengthen the mandate of the CSR Counsellor [...] and provided recommendations to government on how to further strengthen the CSR Strategy”.¹³⁴⁷

In early 2009, around the same time that the CSR strategy was released, **Natural Resources Canada (NRCan)**, created the **Green Mining Initiative (GMI)** to gauge and encourage advances towards sustainability in the sector. The GMI is a research program that seeks to find improved ways to protect the environment, remediate impact and develop alternatives to existing technologies for mineral extraction, mineral processing and environmental reclamation. In short, it aims at helping the industry to reduce its environmental footprint.¹³⁴⁸ Today, the GMI focuses on four core areas: Enhancing Mine Productivity, Managing Water in the Mining Cycle, Minimizing and Managing Mine Waste, and Energy Efficiency in Mining.¹³⁴⁹

The third and most recent initiative is the **Extractive Sector Transparency Measures Act (ESTMA)**, a law that was introduced by the Canadian government in 2012. The law requires transparent reporting on financial transactions between companies and government bodies. Since Canada is a supporting member of the Extractive Industry Transparency Initiative (EITI) but is not an implementing member, ESTMA can be considered the Canadian domestic approach for putting legal requirements for transparency on financial transactions in place.

With respect to other non-governmental initiatives, aside from TSM the best known is most probably the **e3 Plus Initiative** by the Prospector’s and Developer’s Association of Canada (PDAC). e3 Plus is an online information resource to help companies exploring for minerals improve their social, environmental, and health and safety performance. It was launched in 2009 by PDAC as its signature corporate social responsibility initiative.¹³⁵⁰ e3 Plus contains a large set of guiding principles and practical toolkits for good practice for exploration companies and is targeted mostly at Canadian companies operating outside of Canada. The main difference to TSM aside from being focused on international exploration activities instead of actual mining operations within Canada is that e3 Plus is limited to guiding principles without any measurements or indicators, and without any verification process in place. It can be best understood as a framework to promote voluntary good governance for exploration companies that are operating outside of Canada.

Another well-known national initiative in Canada is the **Towards Zero Waste Mining Initiative** by the Canadian Mining Innovation Council (CMIC). CMIC was established in 2009 and comprises 75 plus members from mining and minerals as well as other industries such as high tech, clean tech and aerospace. Towards Zero Waste Mining is an innovation strategy for the industry targeted at “stimulating technology innovation in Canada to achieve zero waste in the industry within 10–20 years, with an integrated focus on productivity, energy and the environment to promote more efficient and sustainable

¹³⁴⁶ So for information about the strategy <https://www.international.gc.ca/trade-agreements-accords-commerciaux/topics-domaines/other-autre/csr-strat-rse.aspx?lang=eng>.

¹³⁴⁷ Mining Association of Canada (MAC) (2017a).

¹³⁴⁸ See for an assessment of the Green Mining Initiative: Natural Resources Canada (2015).

¹³⁴⁹ Government of Canada: “Green Mining Innovation”, available at: <http://www.nrcan.gc.ca/mining-materials/green-mining/8178>.

¹³⁵⁰ Prospectors and Developers Association of Canada: “e3 Plus: A Framework for Responsible Exploration”, available on the internet at <http://www.pdac.ca/priorities/responsible-exploration/e3-plus>.

operations and reducing the environmental impact of mining projects”.¹³⁵¹ The initiative was developed to close the gap between academic research and the commercialization of new technology. CMIC submitted a funding proposal for the establishment of a national supercluster for promoting innovation the mining industry. The proposal is currently under review and would, if accepted, provide \$200M for the development of the supercluster.¹³⁵² MAC is also closely involved with CMIC and the supercluster initiative.

It is worthwhile noting that MAC is closely involved with all these initiatives outlined above and that, overall, it appears there is a relatively strong input from industry, and to some extent other stakeholder groups, to the legislative process as well as to the non-governmental initiatives.

2.4.3.3 Experiences with TSM Implementation - MAC/association Perspective

Implementation Mechanism of TSM

Upon joining MAC, member companies are given a **transition period of four years to fully implement the TSM framework**. In the first year, MAC provides training on the TSM principles, protocols and reporting requirements where necessary; while new members complete self-assessments and report to MAC, the results are not publicized. In the second year, new members are expected to complete self-assessments using the TSM protocols at all facilities and at the corporate office. This provides the new member with a gap analysis and identifies areas for action prior to the facility-level public reporting on the TSM protocols required in year 3. In the third year, TSM results, based on self-assessment, are publicly reported at the facility-level, and in the fourth year, the company is expected to have its TSM scores externally verified by a MAC trained Verification Service Provider. The externally-verified scores are publicized individually along with a member profile discussing the TSM performance. The goal set by the MAC Board is for each facility to reach a level A (or good performance) for all indicators within TSM and to demonstrate continuous improvement.

¹³⁵¹ Canada Mining Innovation Council (CMIC): “Our approach”, available on the internet at <http://cmic-ccim.org/our-approach/>.

¹³⁵² Kondos and Weatherell (2016).

MAC uses a five-level rating scheme to rank mine sites:

Figure 22: Performance Rating TSM

PERFORMANCE RATING	
LEVEL	CRITERIA
C	No systems in place; activities tend to be reactive; procedures may exist but they are not integrated into policies and management systems.
B	Procedures exist but are not fully consistent or documented; systems/processes planned and being developed.
A	Systems/processes are developed and implemented.
AA	Integration into management decisions and business functions.
AAA	Excellence and leadership.

Source: Mining Association of Canada

Taking the TSM Health and Safety Protocol as an example, what does good practice look like or what does MAC is looking for in a company striving for excellence in this area?

For a **Level A** rating a company must show that:

Commitments to safety and health are endorsed by senior management and communicated facility-wide.

- ▶ Documented safety and health standards and procedures are implemented.
- ▶ Workplace inspections occur.
- ▶ Roles and responsibilities for safety and health are understood by all.
- ▶ Risk-based training as well as orientation for all personnel is conducted.
- ▶ Safety and health performance is monitored and tracked against leading and lagging indicators.
- ▶ Safety and health performance is publicly reported.
- ▶ Safety and health performance targets are established and communicated to the workforce.

For a **Level AA** rating, a company must, in addition, show that:

- ▶ Internal audit of safety and health commitments, management system and reporting mechanisms occurs.
- ▶ Safety and health criteria is integrated into business processes (e.g., in purchasing decisions).
- ▶ Benchmarking of safety and health performance against peers is conducted.
- ▶ Performance targets are set for leading and lagging indicators.

To achieve a **Level AAA** rating the company then must also have:

- ▶ External audit of safety and health commitments, management system and reporting mechanisms occurs.
- ▶ Commitment to safety and health is visibly embedded throughout the facility.
- ▶ Continual improvement targets are met and the facility is fatality-free for at least four years.

The evaluation grid to rate the performance for each of the **five indicators for health and safety management systems** are defined in the health and safety protocol.

- ▶ **Indicator 1:** Policy, commitment and accountability
- ▶ **Indicator 2:** Planning, implementation and operation
- ▶ **Indicator 3:** Training, behaviour and culture
- ▶ **Indicator 4:** Monitoring and reporting
- ▶ **Indicator 5:** Performance

For example, with respect to measuring **indicator 5**, the evaluation grid provided by MAC to rate the Level of activity and performance in this area reads as follows:

Figure 23: Performance Assessment Criteria

Performance Assessment Criteria	
Level	Criteria
C	No safety and health performance targets have been established for employees of the facility.
B	Safety and health performance targets are set for employees of the facility. Targets may not include performance of contractors. Targets are communicated to employees.
A	Performance targets include on-site contractors. Facility management is involved in reviewing and improving performance relative to targets. Performance results are communicated to employees and on-site contractors. The facility has not had a fatality in the reporting year.
AA	Performance targets are set for both leading and lagging indicators. Senior company management reviews performance against facility targets and associated improvement plans. Facility (or company) benchmarks its safety and health performance against its peers.
AAA	The facility has consistently met its continual improvement performance targets (at least 3 of the last 4 years) and is fatality free over the entire four-year period. The facility externally audits its safety and health performance to ensure accuracy and reliability of performance information.

Source: Mining Association of Canada

MAC provides these kinds of detailed assessment protocols for each of the six areas to assist companies in their self-assessments and to facilitate consistent application of TSM across companies and their facilities. The protocols are available on the MAC website.

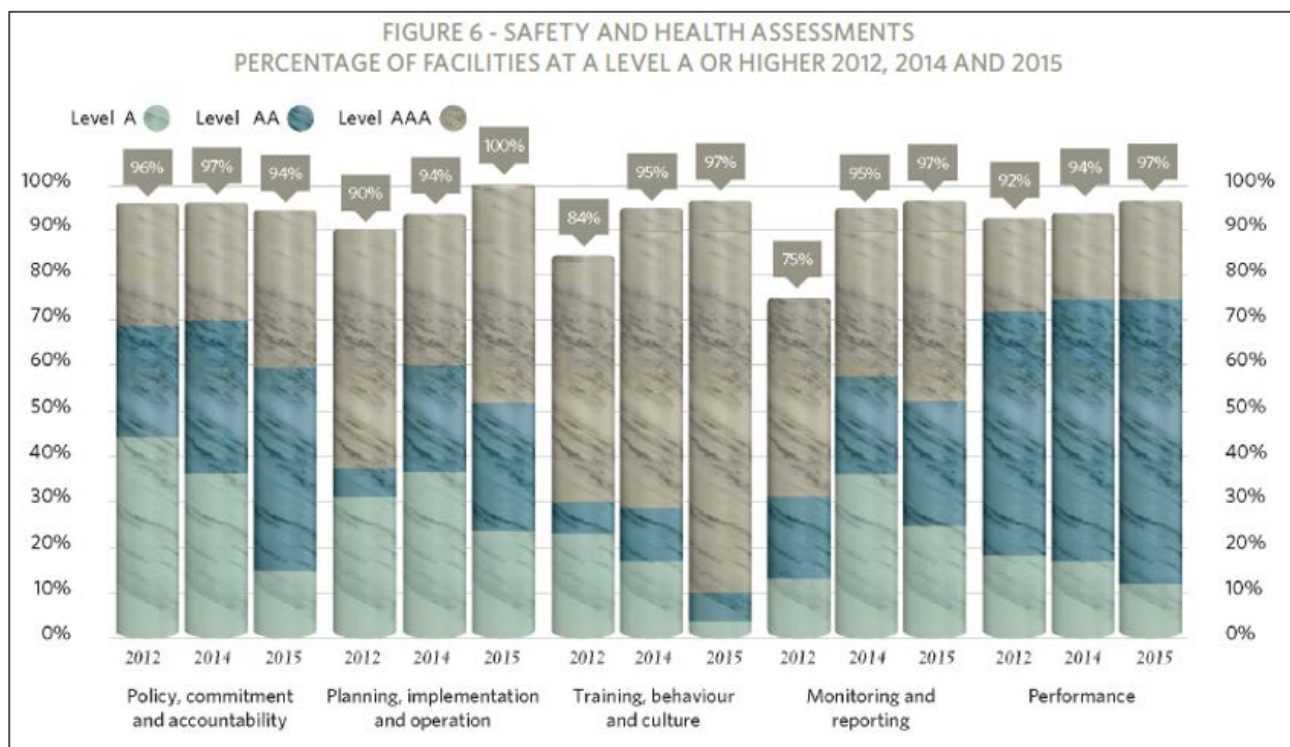
MAC also provides **additional guidance documents** to help companies develop their management systems to meet the TSM protocols requirements such as “A Guide to the Management of Tailings Facilities (2011)”, “Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities (2011)”, “A Guide to Audit and Assessment of Tailings Facility Management (2011)”, “Energy Use and GHG Emissions Management Reference Guide (2014)” and a “Crisis Management Planning Reference Guide (2013)”.

In addition, MAC offers training for individual sites to support the improvement of management systems. For example, in 2016, MAC provided workshops for Goldcorp’s Eleonore mine in Quebec, Goldcorp’s Red Lake mine in Ontario, Vale’s Voisey’s Bay mine in Newfoundland and Labrador and Vale’s Long Harbour Processing Plant, and also organized a Verification Service Providers’ training workshop.

With respect to measuring progress, the TSM Progress Report, where company results are being published, is meant to function also as an instrument to facilitate peer pressure in an attempt to continuously improve results. The 2016 Annual Report indicates the following notable changes to 2015:

- ▶ **85% of facilities have a comprehensive management system** for energy use and greenhouse gas (GHG) emissions, compared to 75% in 2014.
- ▶ **86% have a robust crisis management plan** in place at both the facility and corporate levels, compared to 83% in 2014.
- ▶ **95% of facilities engaged in** effective and meaningful two-way **dialogue** with communities of interest, including local Aboriginal communities.
- ▶ **100% of facilities implemented a safety and health management system.**

Figure 24: Safety and Health Assessment within TSM



Source: TSM Progress Report (2016)

In addition, MAC’s president, Pierre Gratton, presented an overview of progress over a four-year period in a presentation at a recent workshop in June 2017, which displays the change and improvement

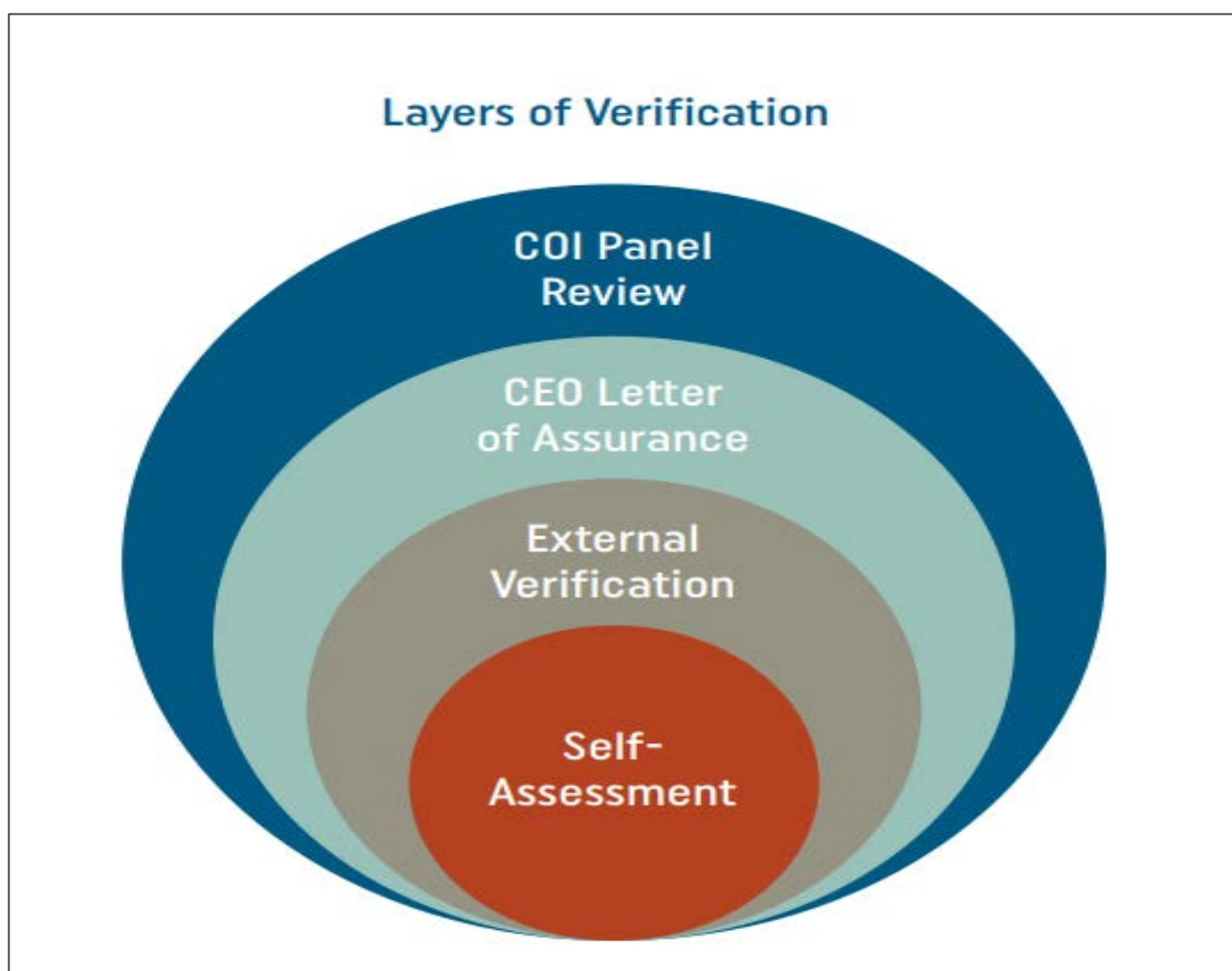
of all member companies combined between 2012 and 2015 with respect to the health and safety protocol in the five indicators. It shows a trend that more companies are achieving an AA and AAA rating – at least in the health and safety performance.

Unique properties of TSM

There are certain properties that are unique to TSM and make up its specific character. These can be characterized as: 1) the evaluation at site-level and ownership of the framework by people at the mine-site, 2) the four layers of verification to build trust with communities, 3) the Community of Interest (COI) advisory panel and multi-stakeholder approach and 4) the continuous improvement approach as outlined in the next sub-chapter.

1. MAC evaluates **company performance at the mine-site** and not company-wide. This is because TSM recognizes that community relations are local and the majority of management issues are local and site specific as well, which is why a measurement and assessment at site level is not only more useful but also bears the opportunity for greater ownership of the protocols by people in the field that are actually working with the protocols.
2. TSM has **four layers of verification** that are briefly described below.

Figure 25: Layers of Verification



Source: TSM Progress Report (2016)

- ▶ **Self-Assessment:** Facilities annually self-assess their performance against all indicators under the TSM protocols, performance results are published in the TSM Progress Report. New members have three years to start publicly reporting.
 - ▶ **External Verification:** Every three years, a Verification Service Provider (VSP) critically reviews a company's self-assessments to determine if there is adequate evidence to support the performance ratings reported. The VSPs are experienced auditors who are independent of the company being externally verified.
 - ▶ **CEO Letter of Assurance:** In the year of external verification, the company's CEO, or most senior executive in Canada, submits a letter to MAC that confirms the external verification has been conducted in accordance with the Terms of Reference for VSPs. The letter is posted on MAC's website.¹³⁵³
 - ▶ **COI Panel Post-Verification Review:** Each year, MAC's independent Community of Interest (COI) Advisory Panel selects a sample of companies to present and discuss their TSM results. Through these discussions, the Panel tests to see whether and how facility systems are leading to performance improvement. The Panel explores the challenges faced by the facilities and the steps they are taking to address them.¹³⁵⁴
3. A third unique property of TSM is the **Community of Interest (COI) Advisory Panel**. It brings together about 20 individuals and representatives from Aboriginal and labour organizations, communities where the industry is active, environmental and social NGOs and the financial community, along with members of the MAC Board of Directors and other mining industry representatives. The COI Advisory Panel monitors TSM's progress and serves as an external source of knowledge and experience. As a direct link with civil society, communities of interest, and aboriginal groups, the panel enables open dialogue and engagement with external stakeholders. By bringing together individuals from different backgrounds, the panel functions as an independent mechanism for analysing the development and implementation of TSM. The COI Advisory Panel meets twice a year. These meetings are an opportunity for the Panel to provide input into TSM developments, to conduct its annual review of TSM performance results for a number of sample companies, and to discuss topics of shared interest with members of the MAC Board. In 2016, the Panel focused on three main priorities: tailings management, climate change and community engagement.¹³⁵⁵

Continuous Improvement of TSM and its Protocols

The continuous improvement of TSM is pursued through four main avenues:

1. TSM is critically reviewed through input from the Community of Interest (COI) Advisory panel. This panel is, according to Tara Shea, Director of TSM at MAC, "probably the most important aspect of TSM" because it "helped create the verification process and conducts a post-verification review of a sub-set of companies every year", which provides credibility to the program and to MAC itself. Additionally, the COI "challenges the industry, revises protocols and makes suggestions" and therefore provides critical input for improvement of the TSM protocols.
2. TSM evolves through the continuous improvement approach MAC takes towards TSM which is expressed in the evolutions of TSM protocols. TSM started out with four core protocols (tailings management, aboriginal and community outreach, energy and GHG emissions management, crisis management and communications planning) and was extended by an additional two (biodiversity conservation management, health and safety), based on the insight that these areas are crucial for company performance but were not included before.

¹³⁵³ MAC website: www.mining.ca/tsm-letters-assurance.

¹³⁵⁴ Mining Association of Canada (MAC) (2017).

¹³⁵⁵ Mining Association of Canada (MAC) (2017a).

Currently two further protocols are being developed (child and forced labour, water stewardship). Discussions within MAC also extend to climate change and how to address it within TSM.

3. TSM evolves by responding to industry events such as the Mount Polley dam breach in 2014, which led to a review and overhaul of the tailings protocol and an associated guide within TSM. In the aftermath of the Mount Polley disaster, the Tailings Working Group (TWG) with experts from MAC member companies reviewed the management of tailings and mine waste to allow the identification of best practices that can then be used to develop industry guidelines for the safe and environmentally-responsible operation of tailings and water management facilities.

According to MAC, the TWG also promotes effective facility management and risk assessment at MAC member facilities and throughout the broader mining industry. The TWG contributes to MAC's TSM initiative, specifically with the development and implementation of the TSM Tailings Management Protocol, and with joint delivery of tailings management workshops.¹³⁵⁶ Additionally, a water protocol is currently in the process of formation as water is becoming an increasingly pressing issue, especially outside of Canada.

With respect to the development of new protocols, taking water as an example, Tara Shea from MAC describes the approach as one where best practices are taken from companies by evaluating what they are doing and what they could or should be doing, and turning that into a standard. She adds that "companies what to get it right" and that today every company "has someone responsible for TSM called initiative leaders, who are keeping in contact with MAC throughout the implementation process".

4. MAC responds to downstream industry demands and changing requirements. As an example, the preventing child and forced labour protocol was added after discussions between MAC and the tech giant Apple, who identified it as an industry standard that generates robust environmental and social performance information for companies to demonstrate responsible sourcing. However, TSM did not cover forced and child labour. Consequently, MAC worked out a forced and child labour protocol for the TSM framework and included it into the framework to comply with the demands of tech leader Apple.

In order to keep informed about changing expectations and to keep an active dialogue with various groups, MAC has also launched a "**Voluntary Initiatives Dialogue**", as part of which it joined several voluntary initiatives such as Responsible Jewellery, Aluminium Stewardship Initiative, BetterCoal and Initiative for Responsible Mining Assurance (IRMA) along with mining companies, including ArcelorMittal and Newmont, and downstream users such as Apple, Intel and Tiffany's, for a discussion on responsible sourcing. Organized and facilitated by RESOLVE, a US-based NGO, this dialogue was intended to help create alignment between upstream producers and downstream users of metals and minerals with respect to responsible sourcing standards.

MAC's TSM initiative was identified as an industry standard that generates robust environmental and social performance information for companies to demonstrate responsible sourcing.¹³⁵⁷ MAC also sustains various task forces to gather information on specific topics and an International Social Responsibility Committee, which observes evolving international policy issues and makes suggestions and recommendations to TSM and to the MAC board of directors.

Compatibility with other frameworks

With respect to compatibility of TSM with other sustainability frameworks, MAC works towards combining and aligning TSM with other standards, especially since there has been a huge influx of voluntary initiatives, over the past decade resulting in companies spending a lot of time in audits and reporting.

¹³⁵⁶ Mining Association of Canada (MAC) (2017a).

¹³⁵⁷ Mining Association of Canada (MAC) (2017a).

According to Ben Chalmers, Vice President of Sustainable Development at the Mining Association of Canada, member companies “participate in up to 19 international sustainability programs, including ISO standards, the ICMM Sustainable Development Framework, the Global Reporting Initiative, the UN Global Compact and many more. Each comes with its own implementation burden. Where possible, Towards Sustainable Mining attempts to be compatible with other standards. This includes the use of ISO and ICMM language in TSM energy efficiency indicators”.¹³⁵⁸ The figure below shows some of the various initiatives that MAC members participate in simultaneously.

Figure 26: MAC Member Company Application of International Standards and Programs

MAC MEMBER COMPANY APPLICATION OF INTERNATIONAL STANDARDS AND PROGRAMS	Industry Sustainability Initiatives			Management System Standards		International Voluntary Initiatives				Reporting, Disclosure and Transparency Standards				Financing Standards	Listed on Socially Responsible Investing Indices	Commodity Specific Standards			
	MAC Towards Sustainable Mining*	ICMM Sustainable Development Framework	WGC Conflict Free Gold Standard	ISO 14001: EMS Standard	OHSAS 18001	UN Global Compact	Extractive Industries Transparency Initiative	Voluntary Principles on Security and Human Rights	OECD Guidelines for Multinational Enterprises	AA 1000	Global Reporting Initiative	Carbon Disclosure Project	Water Disclosure Project	IFC Social and Environmental Performance Standards	Dow Jones Sustainability Index	Jantzi Social Index	Responsible Jewellery	International Cyanide Code	Kimberley Process
*Applied at international facilities. **TSM is applied at international facilities, but results are not reported publicly.																			
COMPANIES/BUSINESS UNITS HEADQUARTERED IN CANADA WITH INTERNATIONAL OPERATIONS																			
Agnico Eagle Mines Ltd.	X										X	X			X		X	X	NA
Barrick Gold Corporation		X	X	X		X	X	X	X	X	X	X		X				X	NA
IAMGOLD Corporation	X			X	X				X		X	X		X		X			NA
Kinross Gold Corporation			X	X	X	X	X	X			X	X	X	X	X	X		X	NA
HudBay Minerals Inc.**	X			X	X		X	X			X	X	X	X			NA	NA	NA
First Quantum Minerals Inc.	X					X	X	X				X		X			NA	NA	NA
Teck Resources Limited **	X	X		X		X	X		X		X	X	X	X	X	X	NA	NA	NA
Vale (Base Metals)				X	X	X	X	X			X	X	X	X			NA	NA	NA
New Gold Inc.**	X		X	X	X	X					X	X				X	NA	X	NA
Eldorado Gold			X	X	X						X	X	X					X	NA
Goldcorp		X	X		X	X	X			X	X	X	X					X	NA
COMPANIES HEADQUARTERED OUTSIDE OF CANADA WITH CANADIAN OPERATIONS																			
Glencore		X	NA	X	X	X	X	X			X	X	X	X	X		NA	NA	NA
De Beers Canada Inc.**	X	X		X	X	X	X	X		X	X	X	X	X			X	NA	X
Newmont Mining Corporation		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	NA
Rio Tinto		X		X	X	X	X	X	X		X	X	X	X	X		X	NA	X
ArcelorMittal				X	X		X				X								

Source: TSM Progress Report (2016)

¹³⁵⁸ NBS (2012): “Industry-Level Sustainability Programs Guide”, available at: <https://nbs.net/p/guide-to-industry-level-sustainability-programs-64988d39-3a7c-49f1-846b-c10dd624a9bb>.

In addition, mining companies in Canada use a variety of systems to manage and govern their business activities. Examples include systems to manage companies' interactions with the environment (EMS), the quality of their products and services (QMS) and their management information (MIS). Many of the systems used by Canadian mining companies adhere to international standards. The International Organization for Standardization (ISO) offers several standards for good management practice, including ISO 9001 for quality management systems and ISO 14001 for environmental management systems.¹³⁵⁹ The interoperability of different frameworks is further discussed below based on the experience of two MAC member companies.

2.4.3.4 Experiences with TSM Implementation – Individual company perspective

Review of practical process, effort and costs involved

To make the implementation process and the practical experiences that companies have made with the TSM framework more tangible, interviews were conducted with representatives at two MAC member mining companies that are responsible for TSM within their respective firm. Both companies commented that the TSM framework is embedded in their general management system, which in both cases was the ISO 14001 environmental management system. One company had introduced the ISO system before TSM, the other had introduced them both around the same time. Both companies also mentioned that senior management was on board from the beginning and supportive of efforts to improve sustainability performance and TSM compliance.

Therefore, based on the interviews conducted, the effort and costs involved to comply with TSM were limited and mostly confined to internal labour costs for additional reporting. Both companies started out with relatively high scores (minimum Level B) and the improvements made came mostly through changes in documentation of processes and activities and were therefore mostly administrative.

As one company put it, things that were already being done had to be made auditable, and therefore the proper documentation of processes, for example as it relates to the process of collecting information on stakeholder engagement, was an important part in improving the TSM ratings. While one company said they have fulfilled 90% of TSM requirements from the start and improved selected areas only due to the robust management systems that were already in place, the other company was able to document a slow and gradual improvement across all indicators from B's and A's to a Level AA and AAA rating over a period of about five years. For both companies, the energy and GHG emissions protocol took the longest to improve on and the most effort because the self-set targets were hard to meet. However, one company commented, that performance improved even if the numerical target could not always be reached. The other company pointed out that it has always operated below the provincial limits for GHG emissions even though the protocol is the only one where the company has not yet achieved a Level A rating.

Another protocol that was mentioned that required more effort to comply with and that was useful in informing the company's practices was the tailings management protocol. One company said that MAC's Guide to the Management of Tailings Facilities and the revisions of the protocol has informed their practices and strengthened its tailings management. The other company commented that with the current review of the protocol and the objective to implement a third-party review for the tailings management protocol in the next two to three years, this protocol will draw the most resources compared to all the other TSM protocols as the third-party review process has to be paid for by the company. The revision to the protocol is intended to provide independent evaluation of the actual practices and therefore be able to measure actual results against the management systems. It will be implemented over the next two to three years.

¹³⁵⁹ Mining Association of Canada (MAC) (2017).

With respect to training staff, one company received a tailings workshop by MAC staff when they signed on to the TSM framework, the other company did not receive any direct training but utilizes the online learning platform to educate employees about TSM. They pointed out that especially the availability in Spanish helps to implement the TSM protocols outside of Canada, where they currently train new staff at a mine-site in Peru to comply with TSM principles using the online learning platform. Most of the education takes place within the company. If a TSM indicator is not met, processes will be outlined and the respective employees will be trained on how to implement and document the respective processes.

With respect to resource allocation for sustainability compliance, one company indicated they have about 40 permanent employees at corporate level dedicated to sustainability compliance including health and safety, and an additional 10-15 at larger sites and 2-3 at smaller sites.

The company has 3300 employees in total. The other company, with a total of about 1800 employees and a more de-centralized structure, said they have three employees at corporate level, and 22 at their largest site (10 in the environment department, and 12 in the health and safety department) who are most directly working with TSM, however, the management team at the corporate as well as site level are also involved with TSM and other compliance frameworks.

This shows that, depending on whether the company is more centrally managed or de-centrally managed, the allocation of resources at the site versus the corporate level can vary significantly. Generally, there was consensus that if robust management systems are already in place, the adjustment through TSM is not substantial and the resources required to comply are limited. However, for a company with less robust management systems, the effort to reach the required TSM performance level could be significant.

2.4.3.5 Changes in the organisation/management since introducing TSM

Each full MAC member company must assign a senior employee as an initiative leader. This person must have a direct reporting relationship (or a direct line of communication) to a MAC Board of Directors member. The initiative leader is responsible for TSM within the company. Initiative Leaders meet 2-3 times per year and occasionally by teleconference. Responsibilities of the initiative leader include:¹³⁶⁰

- ▶ Identify or develop appropriate resources to implement TSM throughout the company;
- ▶ be aware of TSM and its subcomponents and how they will affect, and be implemented in, the company;
- ▶ develop and maintain communication links with MAC and other industry initiative leaders to ensure the application of best practices and the success of TSM throughout the membership;
- ▶ develop TSM frameworks, protocols, indicators and criteria, or coordinate company experts' input into these documents;
- ▶ communicate information about TSM within the company; and
- ▶ gather the company's facility data for reporting on TSM.

Both of the interviews that were conducted for this report were conducted with initiative leaders. One of them was also the Chair of the Initiative Leaders Committee. Aside from the appointment of an initiative leader, there were no changes in staff or organisation through the introduction of TSM. This shows that health & safety and environmental compliance plays a central role in the companies' management overall, and that, where strong management systems are in place, the effort to comply with TSM documentation is fairly limited once the documentation process has been integrated into the overall management and reporting system. At the time of external verification, the time commitment towards TSM obviously increases for a limited time period.

¹³⁶⁰ Mining Association of Canada (MAC) (2017).

TSM mostly helped to inform certain management practices in terms of proper process and documentation. However, the adjustment was considered non substantial by both companies.

Interoperability with other voluntary or mandatory standards

Both companies stated that their primary standard for their overall management system with respect to environmental performance is the ISO 14001 standard. Both companies stated that TSM is embedded within the larger ISO management framework and constitutes an additional layer to the overall management system. There is overlap between those layers and some of them create double work for auditing and reporting. However, within MAC and TSM there is a constant effort to allow and recognize other frameworks and indicators. For example, MAC allows companies to only report on questions within TSM protocols that are not covered through the BSI 18001 standard for Health and Safety, or the ISO 50001 standard that relates to energy consumption and GHG emissions. Therefore, TSM recognizes the ISO standards.

MAC compiles a list of its members' participation in and application of other voluntary standards and frameworks and discloses it in the *TSM Progress Report*. Non-mandatory frameworks are used to measure one's own performance against that of other peers as well as to derive impulses for improvement of one's own practices, according to the companies that were interviewed. One company mentioned that they also apply TSM standards in all their operations outside of Canada, and they include TSM principles in all their exploration activities, even though both are not mandatory.

Based on the interviews conducted it seems feasible and common practice to integrate positive aspects of other standards, in some cases even without increasing the reporting requirements and workload for companies. Generally, efforts are being taken to reduce the double reporting requirements, for example by discussing company experiences in the MAC Committees, which then informs MAC's dialogue with other initiatives in order to mutually recognize and potentially harmonize standards and framework on an international scale.

The challenge for MAC of integrating other frameworks with TSM can arise from the fact that most other voluntary initiatives or frameworks are based on corporate evaluations, while TSM is site-based. Therefore, MAC also strives to have other frameworks accept TSM as part of their evaluation schemes rather than the other way around.

2.4.3.6 Brief Discussion of TSM Critique¹³⁶¹

Industry self-regulation vs government legislation

The critique that was raised here was that self-regulation can prevent adequate government legislation to be put in place and actually hinder much needed hard law from coming into effect.

Mining Watch Canada, a Canadian initiative supported by environmental, social justice, Indigenous and labour organisations, remarked that specifically indigenous rights cannot be left to soft law. They **advocate** for **Impact Benefit Agreements (IBA)**, which are the most formalized way of community engagement, because IBAs constitute enforceable contracts between the mining company and the indigenous community. However, as Mining Watch Canada also points out, not all IBA's are created equal and the quality of the agreement depends to a large degree on the political capacity of the community, that is, the ability to negotiate favourable conditions for the community. This political capacity in turn depends on laws that support IBAs or even make them mandatory, so that communities get access to experts and expertise and assume a strong position in the negotiations.

¹³⁶¹ Rüttinger et al. (2016).

When asked whether soft law can prevent hard law from being put into place, Mining Watch confirmed that they do see a risk that governments sometimes would like to fall back on soft law and industry self-regulation and use it as an excuse to not introduce proper laws. However, on the other hand, there are aspects of soft law that can inform hard law.¹³⁶²

- One example of how MAC informed the process of developing a new law for financial transparency is the Extractive Sector Transparency Measures Act (ESTMA).

In 2012, MAC partnered with Publish What You Pay-Canada, the Natural Resources Governance Institute and the Prospectors & Developers Association of Canada, forming the Resource Revenue Transparency Working Group (RRTWG). This group drew on the expertise of industry and civil society to develop and publish a framework for implementing the mandatory reporting of payments to governments by mining companies in Canada. This framework was, in turn, used by Natural Resources Canada (NRCan) to develop the Extractive Sector Transparency Measures Act (ESTMA). In late 2015 and early 2016, MAC and the RRTWG then re-engaged and worked alongside NRCan to develop an implementation guidance that can assist companies in complying with the Act's requirements.

- Another example where MAC was informing legislative processes was during the review of federal environmental and regulatory processes for natural resource projects the new liberal government launched.

Throughout the year 2016, MAC engaged in the reviews and participated in various stakeholder forums, including the CEAA 2012 Multi-Interest Advisory Committee that was formed to assist in the review. Drawing from the expertise of its members, MAC developed positions and made formal submissions to present the industry's experience with federal environmental assessment processes, and to identify opportunities to strengthen the system. Similarly, on climate change, MAC and its members released the "Principles for Climate Change Policy Design", notable for its inclusion of support for a broad-based price on carbon. The Principles were developed to inform the government as it drafted the pan-Canadian climate change framework.

- Another argument in this context is that too much regulation has a negative impact on investment attraction of a province or region. However, as Mining Watch pointed out, there is no provincial environmental assessment process in Ontario, where projects then only undergo federal review and approval. On the contrary, in the province of Quebec they do have a provincial and federal process in place for environmental assessment and approval that even includes public consultation. Yet, Quebec always ranks better than Ontario in Investment friendliness rankings conducted annually, for example by the Fraser Institute.

Therefore, regulations do not necessarily have to have a negative impact on investment attractiveness for mining projects, as long as the regulation and the process it demands is transparent and effective.

Lack of sanctions and conflict-resolution mechanisms for non-compliance

This critique questions the enforceability of compliance with the TSM standard. When asked directly, MAC stated that there are mechanisms in place which are not public, and therefore not publicly discussed, for companies that are not compliant. For example, if a company does not report as required, MAC has mechanisms to cancel the company's membership. However, in general, MAC tries to support the company to meet the requirements of TSM and to work with the company to address shortcomings. The strongest focus is therefore given of the commitment to continuous improvement, which needs to be demonstrated by the member companies. In the case of shortcomings in certain areas, MAC can make recommendations to the Board of Directors, and if there is no improvement from Level C or B to A, MAC may request a meeting with the company leadership to try and further support the

¹³⁶² Information based on phone interview with Ugo Lapointe from Mining Watch Canada, 11.09.2017.

company. If no change occurs, the process can be escalated up until dismissal. In practice, however, no company has ever been “kicked out” of MAC due to non-compliance.¹³⁶³

The two interviews with the initiative leaders at two leading mining companies in Canada that were conducted for this case study confirmed that their senior management along with the sustainability team is strongly committed to improve performance according to the TSM standard. Since TSM is often embedded in existing management systems such as those based on the ISO 14001, the commitment to TSM does not require an exorbitant amount of additional resources and is accepted as part of good industry practice.

Based on the interviews with MAC and member companies, the COI Advisory Panel and the post-verification review process do provide independent assessments and inputs from a multi-stakeholder group that can probe companies on their performance. In addition, the interviews showed that the biggest potential weakness of TSM is the independence of the external verifiers and the question of whether they engage external and internal stakeholders to verify the documented processes or not (see Section 2.4.3.4).

Limited operational criteria and lack of explicit emission limits

This critique is targeted at the “customizable” approach of TSM, which does not set explicit limits or targets for example with respect to emissions or pollution. It was mentioned earlier that TSM is an industry-led initiative. Mining Watch Canada pointed out another initiative that provides a different approach with respect to thresholds and limits: the Initiative for Responsible Mining Assurance (IRMA). IRMA is led by civil-society and spans a large group of stakeholders along the metal value chain, such as buyers of metals and investors. Even though industry is involved, it is a multi-stakeholder approach with a certification system that is more independent from industry than TSM. Mining Watch suggests that this initiative is more oriented towards concrete results and has more concrete standards for practices than TSM, even though it is still a relatively young initiative.

When asked to comment, MAC pointed out that not setting specific limits is deliberate because every mining operation is different and has different conditions and emissions (for example an open pit coal mine vs. an underground gold mine), and that for that very reason, there is no “one size fits all” limit for emissions or pollution. In addition, the further North a mining operation is located there is likely no electricity grid connection and the mine site is diesel powered. However, diesel emissions are different from emissions for sites that are grid connected and comparison against hard targets would make it economically potentially unviable to operate mines in the North.

Therefore, the assessment of performance has to be site specific and make sense for the specific operation. Furthermore, protocols in place do request to take into consideration what the community thinks and public reporting on targets is necessary, so there is accountability towards the community the project is located in. MAC reaffirmed the underlying assumption and foundational argument for TSM to be that improved performance comes from strong management systems.¹³⁶⁴

Evaluation of protocols and policies vs. actual practices and outcomes

This underlying assumption of TSM that strong management systems lead to improved performance, however, is not uncontested. “UmSoRes Steckbrief: Towards Sustainable Mining (TSM)” notes that this very concept can pose challenges in measuring actual concrete outcomes and results. Ugo Lapointe from Mining Watch Canada confirmed that TSM, not unlike many other soft law initiatives, is focused on management and policy frameworks and best practices but is not geared towards concrete indicators and results. For example, a clear objective for air quality would be certain thresholds or for

¹³⁶³ Information based on phone interview with Tara Shea from MAC, 24.08.2017.

¹³⁶⁴ Information based on phone interview with Tara Shea from MAC, 24.08.2017.

contaminants it would be certain measurable limits. Therefore, the best performing companies according to the TSM standard are the ones that have the right management and policy systems in place, however, the evaluation is not based on actual measurable results on the ground.

However, MAC's approach is deliberately non-prescriptive to allow all companies of different sizes and in various locations to participate in a meaningful way. The processes implemented within each company are therefore commensurate with the risk related to a specific protocol or indicator. As MAC's Ben Chalmers comments, "the TSM indicators are leading indicators, focusing on management systems, rather than lagging indicators, such as water use and greenhouse gas emissions. Leading indicators are more difficult to understand but are more effective in improving operational performance".¹³⁶⁵

The understanding is that the management system performance and on the ground performance work in lock-step with each other, which means that if a company identifies a problem in the management system and corrects it, the solutions result in performance improvement on the ground as well. For example, the management system to reduce GHG emissions will entail concrete targets for energy reduction that can be met or not and therefore are geared towards tangible results that can be measured. In addition, MAC is in the process of revising the tailings management protocol to include an external third-party review process to verify the company practices with respect to tailings.

This revision will be implemented until 2020 and is part of an endeavour to include additional measures to verify actual results from TSM implementation.

With respect to potential gaps between the management system and the results and practices "on the ground" and the question whether TSM is able to identify and "catch" actual problems in company practices, it seems worth mentioning that TSM does include an external verification of the self-assessment and a periodic review of the progress reports by the Community of Interest Advisory Panel. If there was any gap between the management system and the actual practices, it is the external verifiers that should be noticing these gaps.

Interestingly, upon reviewing post-verification reports and progress reports, one of the recurring questions by the panel is whether the external verifier contacted and interviewed external stakeholders and employees at manager or supervisor level to verify the documented processes. In many cases, this was not the case and the verifier relied solely on the analysis and review of the documents.

During the interview with the Chair of the Initiative Leader Committee, it turned out that this very issue is a standing agenda issue of almost every committee meeting. MAC strongly encourages that verifiers reach out to stakeholders to verify the documentation provided as they are tasked with verifying the actual implementation of TSM. If it is reported to MAC that a verifier did not follow the recommended protocol, staff members consult with the verifier immediately after the committee meeting to address the shortfall, and tries to coach them to get back on track and offer retraining where needed. If that is not successful there is an escalation process to address the problem up to the point where verifiers can be blacklisted. In addition, MAC offers a dispute resolution process in case a verifier does not follow normal procedures.

In addition, the post-verification review by the COI panel presents an opportunity to ask additional questions and probe the company with respect to its actual performance. The companies that were interviewed showed a strong interest, motivation, and commitment towards continuous improvement with respect to their sustainability performance.

¹³⁶⁵ NBS (2012): "Industry-Level Sustainability Programs Guide", available at: <https://nbs.net/p/guide-to-industry-level-sustainability-programs-64988d39-3a7c-49f1-846b-c10dd624a9bb>.

2.4.3.7 Lessons Learned

Lessons for a potential dissemination of TSM in other countries

When asked about the lessons for a potential dissemination of TSM in other countries – and according to MAC there is a long list of other countries that are interested in adopting TSM, including the Dominican Republic, Philippines, Cuba, and Spain – MAC stated that one major concern is that there is limited capacity within MAC (two full-time employees at MAC plus a few consultants work on TSM for MAC) which potentially poses a challenge of how to protect the brand and standards of TSM globally in the expansion process.

According to MAC, so far it is going well and there is low risk to the brand, but locations like Cuba with a different environment for companies to operate in, this may become more challenging in the future. MAC therefore may consider to set up an international secretary for TSM at some point in the future.

Another challenge is not just the translation of the framework in multiple languages (so far it is available in Finnish, Spanish and English) but also the adaptation to the local legal and cultural contexts. When TSM was adopted in Finland, Argentina and Botswana, it was not just translated into the local language but underwent a process of adaptation where sections of the framework were adjusted to be in line with the context it is applied in. MAC also stated that while several member companies apply the TSM framework internationally, MAC is working towards the adoption by other national industry associations as there is more ownership of the program this way. Furthermore, the COI Advisory Panel has to be set up locally to be effective and oversee local industry practices. Not only does this allow to provide adequate multi-stakeholder feedback to the implementation process, it also increases buy-in if the initiative is administered locally.¹³⁶⁶

Lessons for international actions for fostering responsible value chains

Initiatives and efforts by civil society groups that are affected by Canadian mining projects are mostly focused on hard law. One contested issue is that these groups would like to be able to prosecute Canadian companies that are committing human rights violations, similar to anti-corruption laws that are already in place and that allow companies to be prosecuted in Canada for corruption elsewhere in the world, and child sex abuse regulations that also apply internationally to Canadian companies and allow for companies operating abroad to be sued in Canada. However, the mining industry has opposed putting hard law in place to prosecute human rights violations committed internationally.

On the environmental side, one of the most important areas to consider is the increasing amount of mining waste and sometimes toxic waste due to decreasing grades. At large open pit operations the waste to ore ratio is moving towards 99% to 1%. Therefore, waste is increasing and strong regulations are necessary for the construction of dams and tailings facilities, for the cost of reclamation of mine sites, and criteria to apply for safety of storage, to avoid spills that can endanger lives and ecosystems.

Mining Watch Canada, together with other civil society groups, for example, is therefore suggesting to the Canadian government to create the position of an Ombudsperson in Canada for Canadian extractive companies operating abroad. This would constitute a soft law measure within the Canadian institutional landscape, however, with the power and capacity to investigate and report and make recommendations to government about allegations regarding human rights or environmental violations of companies committed abroad.

¹³⁶⁶ Phone interview with Tara Shea, August 2017.

2.4.3.8 Conclusions

The **fundamental question** seems to be whether TSM has:

1. changed how the mining industry in Canada operates,
2. been able to identify and address gaps in the performance of mining operations, and
3. improved public and stakeholder acceptance of mining operations in Canada.

Generally, one can say that the mining industry today is more aware of risks and indigenous rights issues, and more efforts and resources are deployed to deal with and mitigate risks that arise from community opposition. Social license is considered a leading business risk. Therefore, considerable resources are deployed to mitigate this risk and obtain a social license to operate. In that process, industry practice has changed and TSM contributed to the difference in approach of how companies engage with communities and mitigate environmental and social risks.

When asked what have been the major successes of the TSM initiative, Ben Chalmers, Vice President of Sustainable Development at the Mining Association of Canada, emphasized that since the first report was issued in 2006, members have improved their performance in all six areas of operation. The reporting required with TSM has allowed mining companies to identify areas of vulnerability and develop solutions to address management system gaps. This has led to improved performance.¹³⁶⁷

TSM is an industry-led initiative that is non-prescriptive by design and deliberately allows each company to make management systems commensurate with the risks particular to each mine site. It is based on the assumption that strong management systems lead to improved performance. To ensure robust credibility, layers of external verification were added to the self-assessment process. The COI Advisory Panel and post-verification review panel have therefore pointed out to be one of the most important elements of TSM that have not only increased credibility of MAC as an industry advocate but also opened TSM up to stakeholder input and therefore allows critical reviews of industry practices.

Overall, one could conclude that industry practices have improved and TSM was able to identify performance gaps and has led to adjustments in management systems to address problems and better manage risks. It has been confirmed by the implementing companies that TSM is a useful tool to address specific shortfalls in performance management and that it has provided helpful guidance for improvement, especially for example in tailings management or energy reduction endeavours.

Interestingly, the most significant weakness with respect to successfully identifying gaps in actual practice “on the ground” was found not to be the lack of definite criteria (each company sets specific target criteria, for example to reduce energy consumption) but the lack of outreach to stakeholders on the part of the external verifiers, who oftentimes rely on an analysis of documents provided to assess and verify the performance rating of a given company. Therefore, TSM’s greatest strength is also its greatest weakness. The external stakeholders who are able to determine if what is documented on paper matches the experience of the community and of the employees directly working with the management protocols needs to be part of the verification process in a meaningful way to increase the credibility of the external verification process. MAC is aware of this challenge and constantly works with companies and verifiers alike to improve this aspect of the verification process. In addition, the post-verification review panel offers opportunities to probe the companies further and get a true sense of their actual performance and if “they mean what they say”.

Has TSM improved public acceptance of mining projects? Yes and No. Whereas MAC conducts annual surveys through a research organization that shows high public acceptance of mining in Canada, Mining Watch Canada sees as much opposition to mining projects today as twenty years ago.

¹³⁶⁷ NBS (2012): “Industry-Level Sustainability Programs Guide”, available at: <https://nbs.net/p/guide-to-industry-level-sustainability-programs-64988d39-3a7c-49f1-846b-c10dd624a9bb>.

However, it is important to note that there is a difference between mining operations, that is, mines that are already operational, and mine development projects, that is, projects in the stage of environmental assessment through to permitting but prior to construction. Whereas public opposition to mining projects is almost exclusively focused on mine development projects, TSM only applies to mines that are already operational, which might explain the difference in perception between MAC and Mining Watch, at least to some extent.

Ugo Lapointe of Mining Watch, who has worked in and observed the industry for more than 20 years, estimates that 5%-10% of mine development projects in Canada are very controversial and are being opposed by communities. In his experience, this ratio has not changed much over the past two decades, although there is no hard data to prove it. However, the main contestation, from a civil society perspective, is not whether the number of contested projects has increased or decreased but what happens to the projects that are contested and that are rejected by the communities they impact. From the perspective of Mining Watch the general practice is to seek consent, however, if that consent cannot be obtained, oftentimes projects are pursued by deploying legal means, and many of these contested projects are then negotiated and decided in court and with government involvement. In fact, Ugo Lapointe of Mining Watch does not recall any example of a project where a company accepted a “No” from the community for an answer.

Interestingly, Pierre Gratton, President of MAC, has a different view, when he states that since the late 1990s, which marked the beginning of a change in the mining industry “it had become clear that the old world where mining projects were big deals welcomed almost uncritically by governments and communities for the wealth and jobs they brought, was over. Industry came to accept that it may, at times, have to walk away from a project. The challenge was to make sure this happened as infrequently as possible”.¹³⁶⁸

According to the Chair of the TSM Initiative Leader Committee, even though TSM does not apply to mining exploration activities, MAC tries to bridge gaps with the exploration industry as some members also have exploration activities. For example, the company interviewed for this study says that their exploration group is required to follow TSM protocols during the exploration phase, in addition to using the E3 plus guidelines and tools, and the numerous provincial sources targeted at the exploration sector for community outreach.

Despite all the successes in introducing new (reporting) standards for MAC members, TSM also raises important questions, in particular, what happens and what should happen to projects that are opposed by the community during the exploration and planning phase and what role governments and sustainability frameworks could and should play, nationally and internationally, in mediating the interests of communities and companies seeking to make profit from resources in the ground, especially in cases that face strong opposition from civil society and indigenous groups and where companies do not follow appropriate soft law measures.

¹³⁶⁸ http://mining.ca/sites/default/files/documents/Pierre_Gratton_VBOT_Speech_Sept_11_2014_0.pdf.

3 Overall assessment of the governance framework

3.1 International law

The IRP has identified the proliferation of standards as a key governance challenge.¹³⁶⁹ At the same time, the binding international law obligations, emerging principles and concepts assessed in this study include **almost no obligations specifically relating to mining** in the territory of a state. A state has the exclusive right to decide whether and how to access and exploit its natural resources. However, this right has to be exercised in accordance with other obligations, i.e. within the limits of e.g. environmental or investment law.

Existing treaties only address some issues relating to mining, have gaps or establish vague obligations. **Obligations specific to mining are restricted in scope to certain geographical areas or resources.** For specific geographical areas, the rules under UNCLOS for the deep seabed are near-universal and form a comprehensive regulatory regime for extracting mineral resources. Although the International Seabed Authority is currently developing comprehensive environmental rules, the regime is clearly focused on exploiting mineral resources. The ISA's conflicting mandate and obligation to manage deep seabed mining as well as protect the marine environment has led to controversy as well as to questions about the relation between seabed mining regime and the potential treaty on biodiversity of areas beyond national jurisdiction that is currently under negotiation.¹³⁷⁰ The Antarctic is designated by the 1991 Environmental Protocol as a natural reserve in which activities relating to mineral resources are prohibited except for scientific research. It includes a mandatory system of inspections by observers. Both areas are not national territory of any state.

With regard to specific resources, the **Minamata Convention** on mercury aims at phasing out mercury production completely and uses a broad range of steering tools including trade restrictions regarding non-parties. It also specifically addresses small and artisanal mining. As mercury is a toxic substance which the Minamata Convention seeks to eliminate in the long term, the Convention's value as a model for other, non-toxic resources may be limited. On the other hand, its provisions on small and artisanal mining could be a starting point for the law to address this type of mining.

The case study for Minamata-Peru shows that international law can foster reform processes towards responsible mining practices. Peru ratified the Minamata Convention in November 2015. It became apparent that the biggest challenge for successful implementation will be informal small and artisanal mining sector, in which mercury is widely used to extract gold. Reducing mercury use is therefore closely linked to formalising SAM, which has made little progress in the last 20 years, despite several initiatives of the Peruvian government. Implementing the Minamata Convention could make an important contribution (not least because international support is of high importance to Peru), even though under the Convention Peru is only obliged to prepare and implement action plans. The first two years since ratification have shown a lack of ownership, coordination and the necessary technical expertise at the relevant government departments as well as at the mining enterprises concerned.

With regard to **social standards**, ILO Convention 176, together with a non-binding implementing Recommendation, appears to be the only internationally agreed social standard for health and safety in mines as a workplace. However, only 33 countries have joined the Convention so far, and enforcement of the Convention is weak.

¹³⁶⁹ International Resource Panel (2019): Mineral Resource Governance in the 21st Century. Summary for policymakers and business leaders, p. 28, available at <http://www.resourcepanel.org/reports/mineral-resource-governance-21st-century>.

¹³⁷⁰ See IAS Statement of 04.07.2019 in response to a Greenpeace report, available at <https://ran-s3.s3.amazonaws.com/isa.org/im/s3fs-public/documents/EN/SG-Stats/isa-statement.pdf>; Jaekel (2017) 116-141, and ENB, Summary of the Second Session of the Intergovernmental Conference on an International Legally Binding Instrument under the UN Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biodiversity of Areas Beyond National Jurisdiction: 25 March - 5 April 2019, available at <http://enb.iisd.org/oceans/bbnj/igc2/>.

General international environmental law covers mining, but it is not comprehensive. Obligations such as the duty to prevent transboundary harm or to carry out an impact assessment could serve as a counterpart to the sovereign right to exploit natural resources. Besides the special regimes in UNCLOS, the Antarctic Protocol and the Minamata Convention, the applicable steering tools are mainly procedural and include reporting and planning processes in particular. However, ascertaining particular gaps in relation to specific environmental risks from mining is difficult because most obligations under international environmental law are quite general and this study only addresses a limited number of selected norms. Steering tools of international treaties focus on the prevention of environmental impacts, hardly any obligations provide for the rehabilitation of contaminated sites or closed mines.

International treaties such as the UNCCD and the CBD provide a framework for countries to take action to fight desertification, land degradation and drought, or to conserve and sustainably use biodiversity. Despite the close link between mining activities and the objectives of these two treaties, countries have hardly used the tools provided to find and implement targeted solutions. This might change with regard to the CBD after the COP adopted a decision in 2018 on the mainstreaming of biodiversity in, among others, the mining sector.

International trade and investment law is mainly a potential impediment to environmental and social standards. The WTO system, in particular the GATT and the Procurement Agreement, basically determines to what extent states may be permitted to set such standards. Investment treaties can be an additional opportunity to establish environmental and social standards, but their underlying interests make it unlikely.

Potential **reasons specific to mining that make states particularly reluctant** to develop and agree on binding obligations in this area could include: (i) having natural resources is historically perceived as providing a higher degree of autonomy; (ii) natural resources are a source of national income; (iii) mining has only limited transboundary environmental risks or impacts; (iv) binding international environmental law rarely addresses activities in a particular economic sector – although there are exceptions. In particular point (iii) could be an impediment for new obligations if its assumption holds true.

There is no discernible deliberate division of labour between binding and non-binding or other approaches. So far neither non-binding political initiatives nor other non-state approaches relating to mining appear to have spurred the development of binding obligations. However, this does not exclude from the outset that existing non-binding approaches could be used to either build political will in this regard, show feasibility or serve as a model or de-facto standard for fulfilling international legal obligations.

3.2 Non-binding standards addressing mining activities

In contrast to binding obligations between states, there is a considerable number of non-binding standards at the international level that specifically address mining. The instruments selected for this study show the high complexity and the wide range of different approaches and stakeholders addressed.

To help companies respect human rights and avoid contributing to conflicts through their mineral purchasing practice, the **OECD Due Diligence Guidance**¹³⁷¹ has been developed in 2011 and been updated twice since. It recommends the adoption and implementation of a 5-step supply chain due diligence approach for minerals, which is most commonly applied for tin, tantalum, tungsten and gold. The guidance document has received widespread political support and has been incorporated into US and EU legislation on conflict minerals giving it legal effect.

The World Bank has adopted an **Environmental and Social Framework (ESF)** in order to manage environmental and social risks of projects it finances. As of October 2018 the ESF applies to all new World

¹³⁷¹ OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Bank investment project financing and consists of a set of requirements to ensure that certain minimum standards are implemented and complied with. As they are part of the World Bank's financing conditions, they are binding for projects and implementing partners. While the standards cover a wide range of environmental and social aspects, they are not applied in a uniform way for all projects. Instead, the identified risks and impacts of a project as well as the applicable national legal framework determine the standards. While the ESF is not sector-specific, it refers to general guidelines and industry-specific guidelines, e.g. for mining activities, that serve as technical reference documents.

Canada's Mining Association developed **Towards Sustainable Mining (TSM)** as a set of tools and indicators for responsible mining to be applied by its members. It allows companies to assess their management schemes to reduce risks from the operation and closure of mines. The assessment is done by the companies themselves, its results are published as well as verified and audited externally. TSM qualifies as industry standard that is specific for the mining industry and benefits from its transparency obligations and multi-stakeholder involvement. Since TSM has been set up in Canada, it has also been adopted by the respective associations in Finland, Botswana and Argentina.

The **FairMined and FairTrade** standards have been developed to promote responsible extraction procedures for the artisanal and small-scale mining sector (ASM) for precious metals. Miners that comply with a set of core and development requirements can apply for certification. If successful, they are guaranteed a certain price or even a financial premium in case no mercury or cyanide have been used for extraction. While these guarantees are an incentive for miners to participate and apply for a certificate, the success strongly depends on the buyers' willingness to pay a higher price for responsibly mined metals.

The **Aluminium Stewardship Initiative (ASI)** is a voluntary global initiative of stakeholders along the bauxite and aluminium supply chain from mining to end-of-life. It developed a performance standard that aims at the certification of individual production facilities and a certification scheme for material. Both, the performance standard and the certification scheme address environmental issues such as greenhouse gas emissions, waste, water pollution and biodiversity, as well as social issues such as human rights, labour rights and occupational health and safety. While ASI has strong support from industry stakeholders, it remains unclear if it can stimulate positive change beyond its members.

There is a general **difficulty in assessing the effectiveness of voluntary approaches**. Their added value could be in supplementing legal requirements by providing more specific and standardised indicators. However, the existence of voluntary approaches could also be used as an argument that legal requirements are not needed.

3.3 National and European law with extraterritorial effects

Legislators may choose to **put obligations on companies** regarding activities along the supply chain and in other countries. They establish duties of supply chain due diligence, duties to report and disclose information, financial incentives or product bans, and enforceable sanctions.

The **EU Conflict Minerals Regulation** is the only legal act (of this kind) which targets specifically the mining sector. It does not cover environmental impacts of mining, but establishes supply chain due diligence obligations for direct importers of four minerals – tin, tantalum, tungsten and gold (3TG) – originating from conflict-affected and high risk areas (CHARA). Importers have to identify and assess risks according to Annex II of the OECD Due Diligence Guidance – an obligation that renders the otherwise non-binding OECD standard binding. The supply-chain due diligence obligations are complemented by obligations to carry out third party audits and to publish reports on supply chain due diligence policies and practices on an annual basis. These obligations do not affect manufacturing industries, the so called “downstream” industries, although they import considerable amounts of 3TG-minerals indirectly via semi-finished products. As the EU Conflict Minerals Regulation will come into effect in 2021, the effect it has on practices at extraction sites remains to be seen.

The **EU Directive on Corporate Social Responsibility (CSR Directive)** has a rather wide scope as it applies to large companies from all sectors and environmental as well as social risks. It requires, inter alia, the disclosure of information about due diligence policies implemented by a company and the outcomes of such policies. It does not, however, require companies to have such due diligence policies. Companies have to include the information in their management reports. Auditors check whether companies comply with this obligations, penalties may be imposed by Member States in case of infringements.

Mechanisms for enforcement are provided by the **US Alien Tort Statute** for violations of international law and by the **French Law on the Duty of Vigilance** for the violation of due diligence obligations established by the law itself. Both legal acts apply sector-wide, but may be of particular relevance for mineral activities. They give individuals – such as victims of human rights violation or environmental damages – access to civil litigation, allowing them to claim damages. However, in recent years US courts have interpreted the ATS quite restrictively and severely reduced its potential against non-US corporations.

These examples – another one being the EU Timber Regulation – show that despite complex value chains, **it is conceivable in principle to establish legal requirements relating to the environmental and social impacts of raw material extraction that occurs in other jurisdictions**. They also show ways of giving some legal effect to non-binding environmental and social standards, for instance by referring to such standards as a means to fulfilling a legal due diligence obligation. Finally, they demonstrate how obligations can be combined with civil litigation.

3.4 Case studies

The **three case studies** on experiences in implementing governance measures in international law, national law and soft law exemplify that assessing such measures is contingent on their context. It also shows to what extent incentives for enterprises are necessary in order for the measure to be effective, i.e. to make the measure contribute to environmentally sound mining.

For instance, **Certified Trading Chains (CTC)** is a certification scheme for mining companies which the German Federal Institute for Geosciences and Natural Resources helped to develop. It was made binding in the Democratic Republic Congo for certain minerals by ministerial order in 2012. The instrument is a response to the obligations on US enterprises regarding the import of so-called conflict minerals (tin, tantalum, tungsten and gold). In contrast to other certification schemes in that region, CTC goes beyond showing that the minerals are conflict free and also integrates environmental and social objectives. Because it includes criteria such as proof of an environmental impact assessment or work safety standards, CTC is de facto an approach to formalising small and artisanal mining, and its structure has features of a “premium standard”. When this ambitious standard was made binding in a fragile state, it became apparent that businesses as well as authorities did not have the planning and administrative capacity to implement it. The high costs for audits by independent auditors are one of the reasons why there is little incentive for companies to become certified. This is why only very few companies apply CTC.

The implementation of the **Minamata Convention** in Peru shows that international law can foster reform processes towards responsible mining practices. When Peru ratified the Minamata Convention in January 2016, it became apparent that the biggest challenge for successful implementation will be the informal artisanal and small-scale mining (ASM) sector, in which mercury is widely used to extract gold. Reducing mercury use is therefore closely linked to formalising ASM, which has made little progress in the last 20 years, despite several initiatives of the Peruvian government. Implementing the Minamata Convention could make an important contribution (not least because international support is of high importance to Peru), even though under the Convention Peru is only obliged to prepare and implement action plans. The first two years since ratification have shown a lack of ownership, coordination and the necessary technical expertise at the relevant government departments as well as at the mining enterprises concerned.

4 Conceptual approaches to strengthen international governance

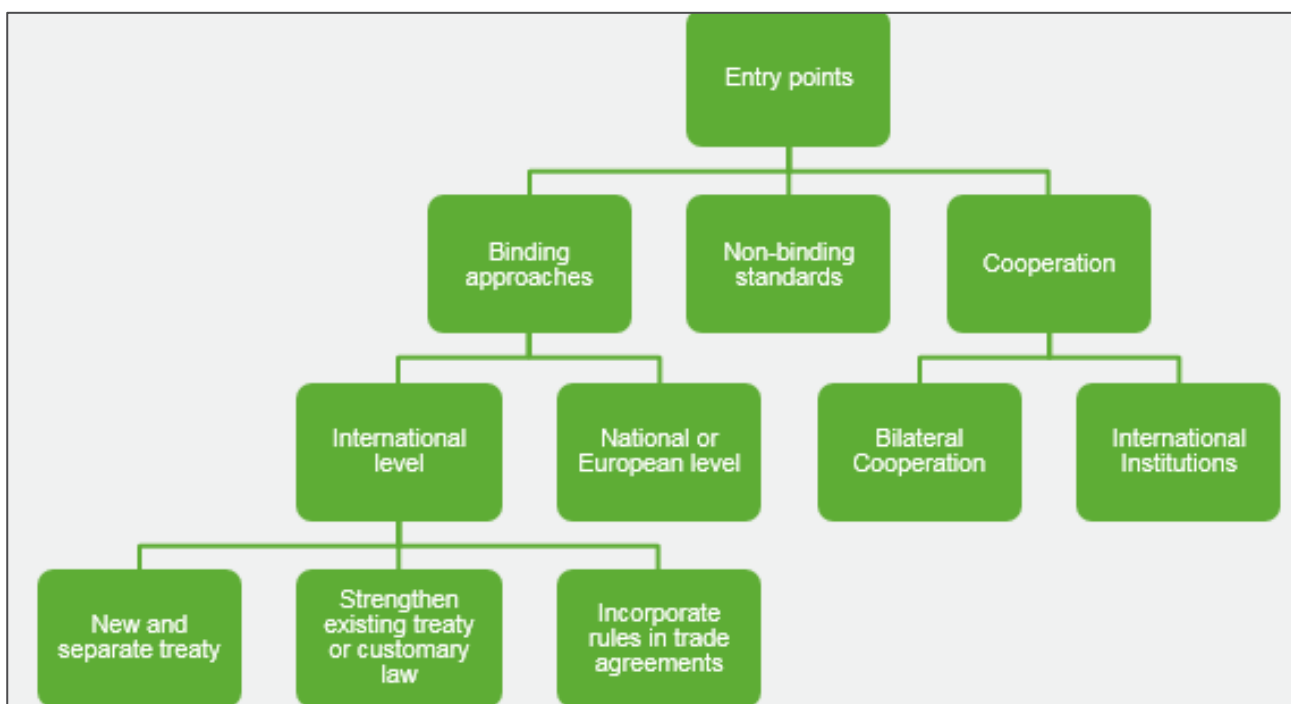
Chapter 4 presents conceptual approaches to strengthening international governance for mineral extraction on the basis of existing instruments. The objective is to promote, establish and enforce global standards for environmentally sound mining. How can Germany contribute to make mining activities outside its territory adhere to environmental standards, i.e. in other countries and areas beyond national jurisdiction? Based on these conceptual considerations, Chapter 5 lists specific policy options and recommendations.

There are several entry points and options which can be roughly structured as follows (see Figure 27):

- ▶ Binding approaches
- ▶ Non-binding standards
- ▶ Cooperation

These categories are only one way of structuring the various entry points for strengthening governance of mineral extraction. There are overlaps between the different categories. For example, re-defining mandates and tasks of international institutions can be done via binding or non-binding rules. Besides, a combination of approaches can be desirable. For instance, binding instruments can refer to non-binding standards and make them mandatory.

Figure 27: Entry points and options to strengthen governance of mineral extraction



Source: Own figure, Ecologic Institute

The following sections set out one of several ways to structure policy options and potential recommendations. This does not exclude other views and approaches.

4.1 Normative view: binding rules and obligations

One approach for governance options is normative and based on legally binding rules and obligations at different levels. In particular at the international level, a broad view on “bindingness” includes options for semi-legal and so-called soft law approaches. In addition, linking binding rules with non-binding standards is particularly interesting for mining activities.

4.1.1 Types of legal steering approaches

From a normative point of view, the question is who regulates and who is obliged to do what. Actors which are relevant for mining and which could be rule-makers as well as addressees include, inter alia:

- ▶ The company engaged in the particular mining activity
- ▶ The state¹³⁷² in which the mining activity takes place
- ▶ Other states, e.g. importing states or states whose rules can address the conduct of the mining company, for instance by permitting legal claims and lawsuits
- ▶ Lenders and other institutions whose rules can address the mining company
- ▶ Buyers along the supply chain, including the state via public procurement rules.

Some actors can **set rules as well as be subject to rules**: For instance, a state in which mining takes place can be obliged by a treaty to ensure that mining activities in its territory comply with certain environmental standards. Normally this state would then adopt corresponding rules in its national legal system and therefore also act as rule-maker. The EU's conflict mineral regulation (see Section 2.3.6) is a similar example: The addressees are importers of certain minerals or metals who are obliged to, inter alia, include certain content in their contracts with suppliers, which in that sense also makes them rule-makers vis-a-vis their suppliers.

The normative perspective also means distinguishing different **regulatory levels**, mainly international law, EU law and the respective national laws.

In order to have a clear sense of who a rule would oblige, and with which content and steering effect, legal approaches could be structured as follows:

- ▶ **Direct regulation:** Legal obligations that directly apply to the company conducting the mining activity. For instance, a German law obliges companies to comply with certain environmental standards for their mining activities abroad.
- ▶ **Indirect regulation:** Legal obligations for other actors to oblige the mining company. For instance, an international treaty obliges a state to ensure certain environmental standards for mining activities on its territory. That state would normally fulfil its obligation under international law by enacting and implementing corresponding national laws regarding mining.
- ▶ **Indirect de facto steering:** Legal obligations for other actors which *de facto* influence the conduct of the mining company. For instance, criteria for public procurement.

For all approaches, it needs to be considered whether the entry point for the legal rules is the environmental impact generally or the mining sector. For instance, legal rules could prescribe environmental standards for water regardless of which actor carries out which activity. Alternatively, legal rules could set obligations that specifically address the mining sector.

The following subsections address potential governance options and provide first thoughts on the approaches set out above.

4.1.2 Direct regulation

This approach sets legal obligations directly for the company carrying out mining activities.

One plausible starting point is the **national law of the state in which the mining activity takes place**. In principle, a state is free whether or not to regulate mining in its territory by national law and to set environmental standards. However, a state may be obliged by international law to adopt such rules. This is addressed in the section on indirect regulation (below). Vice versa, international law restricts a state in setting such standards e.g. by international investment law (see Section 2.1.4.5).

¹³⁷² In this paper, unless stated otherwise we use the term „state“ so as to include the EU and other relevant subjects of international law.

4.1.2.1 Investment agreements

Companies can be obliged by **investment agreements** to adhere to environmental standards.¹³⁷³ This mainly applies to companies that are not based in the country where the mining occurs. However, the stocktake in this study showed that this is not a likely scenario because of the interests involved in investment treaties. There appear to be few possibilities for influencing the states concerned.

4.1.2.2 National or EU law

Another possibility for direct regulation is that **other states** adopt national rules which apply to the mining company and its activities in the state where the mining occurs. In principle, it is legally possible to adopt laws that apply **extraterritorially** to activities in other countries. State “A” may regulate mining activities of companies that take place in state “B”. However, besides obvious political questions, the legal limits to this type of regulation would have to be assessed in each case. Such limits under international law include, for instance, the prohibition to interfere in the internal affairs of the state in which the mining activity takes place. There has to be a “reasonable” link between the activity in state B and the national legal order of the regulating state A, e.g. when the company’s seat is in state A. Another possible and internationally recognised link is when an activity in state B has effects in the regulating state A. Examples include German and EU competition laws or rules against money laundering and corruption abroad. With regard to natural resources, the CSR directive (see Section 2.3.5) could in parts be regarded as direct regulation: It obliges certain companies to include in its management report information inter alia on environmental aspects and due diligence processes, even if the activities are abroad. However, the CSR directive does not oblige companies to comply with specific environmental standards or due diligence obligations. In contrast, the EU conflict minerals regulation (see Section 2.3.6) is mainly indirect regulation. It steers the conduct of mining activities *indirectly* by imposing legal obligations on importers that affect the supply chain. Companies that carry out mining activities are obliged directly only in case they also happen to be EU importers.

There is also the possibility that **international law directly addresses companies** by imposing obligations on them. Traditionally, companies are not subjects of international law and have no obligations from this legal order.¹³⁷⁴ However, this view has been under debate for a long time in particular because of the special nature of investment treaties (see Section 2.1.4.5), in which states and companies enter into agreements at the international level. There are now international processes which appear to include companies with distinct legal duties, e.g. in the UN Global Compact - although this is explicitly not supposed to mean obligations in the traditional sense. This issue is not mere academic legal theory. It is an important *political* consideration to take into account when considering whether environmental standards in mining would be a suitable case for taking this debate forward.

4.1.3 Indirect regulation

This approach places legal obligations on other actors to then put legal obligations on the mining company. For instance, a treaty obliges a state to ensure that mining activities on its territory fulfil certain environmental standards. In order to fulfil its obligation, that state enacts national laws which oblige mining companies.

From this perspective, one recommendation could be to seek **obligations for states** to regulate environmental standards for mining activities on their territory. International law is the classic means for such obligations on states. This could be treaties such as multilateral environmental agreements or bilateral resource agreements. They could lay down obligations for parties to ensure that mining activities comply with certain environmental standards. Normally, states that are parties to the agreement would enact and enforce national laws to that effect.

¹³⁷³ Irrespective of the precise legal nature of such agreements, which is not always clear.

¹³⁷⁴ There are possible exceptions for private individuals such as international criminal law and war crimes.

4.1.3.1 New stand-alone treaty

One option for obliging states could be a **new stand-alone treaty** specifically on mining. However, the political likelihood for such a treaty is currently small. So far there are only very few treaties in international environment law that address the environmental impact of specific industry sectors. Environmental treaties usually address environmental media and goods, areas or pollutants. Another potential impediment to binding international rules for the mining sector might be that the environmental impacts of mining are not automatically and usually of a transboundary nature (see above). This would reduce one of the classic incentives for states to seek international cooperation through binding agreements. Rules that are specific to the mining industry but that are not based on transboundary impacts, such as the work safety standards in the ILO Mining Convention (see Section 2.1.3.3), have gained only few ratifications.

4.1.3.2 Strengthen existing treaties

Another option is to **strengthen existing treaties**. This does not necessarily mean treaties specifically on mining. It could also include strengthening relevant environmental standards that are not sector-specific. For instance, Germany could support the expansion of the Espoo-Convention (see Section 2.1.2.9) beyond the UNECE area, as it provides for a detailed system for environmental impact assessments and public participation. The Minamata Convention (see Section 2.1.2.3) shows that it is politically possible to address mining through binding international law. The Convention has entered into force just recently and provides reasonable opportunities to shape the implementation guidance at this early stage for small and artisanal mining, and to support implementation also at the treaty level.

4.1.3.3 Integrate into free trade agreements

Free trade agreements, a subset of treaties, can also generally oblige states to protect the environment (see Section 2.1.4.4). Even if in doing so they do not specifically address mining, that sector could be indirectly influenced by general environmental provisions. However, it has to be taken into account that Germany is a member state of the EU and does not conclude free trade agreements on its own because that competence is with the EU.

4.1.3.4 Include in bilateral resource agreements

Obligations relating to environmental standards could also be included in **bilateral resource agreements** such as the German raw materials agreements (*Rohstoffpartnerschaften*) with Kazakhstan, Mongolia and Peru. These current examples are focused on security of supply and the German government views them as part of its long-term resource policy.¹³⁷⁵ Their prescriptiveness is generally weak, but they do express expectations directed at industry in the importing country.¹³⁷⁶

4.1.3.5 Strengthen international environmental law rules

In addition, **existing international environmental rules could be strengthened**, in particular through interpretation. This does not only include existing treaties such as the Biodiversity Convention (see Section 2.1.2.8). There is also potential in customary law, e.g. regarding the duty of states to ensure that an environmental impact assessment is carried out for certain activities. It is challenging to apply this to mining in cases where there is no or little transboundary environmental impact. The existing, developing and emerging principles of international environmental law are mainly linked to transboundary impacts.

4.1.3.6 Establish financing conditions and contractual terms for development financing

In particular **finance institutions** such as the World Bank have considerable legal influence through their financing conditions and contractual terms in programme and project development financing.

¹³⁷⁵ See the government's response to a Parliamentary question in BT-Drs. 18/9626 - "5-jähriges Jubiläum des Rohstoffpartnerschaftsabkommen mit der Mongolei" - of 14.09.2016.

¹³⁷⁶ Nowrot (2013) at 22.

Terms such as the World Bank's Environmental and Social Framework and the IFC's Environmental and Social Performance Standards oblige the recipients and at least indirectly the implementing agencies and companies.¹³⁷⁷

4.1.4 Indirect *de facto* steering

Indirect *de facto* steering comprises legal obligations for other actors which *de facto* influence the conduct of the extracting activity of a mining company. This includes e.g. overall business conditions and economic incentives. Specifically, environmental criteria in public procurement rules do not legally *oblige* mining companies to comply with these criteria - but they provide economic incentives and leverage for the state.

Trade measures include not only prohibitions but can also e.g. provide economic incentives through tariffs and *de facto* influence environmental standards that are outside their own jurisdiction. This approach is not new. There are examples in international trade law, even from before the WTO came into existence, of national import restrictions e.g. for tuna and shrimps that were captured with certain methods that were harmful to dolphins and turtles.

Legal rules could impose duties with regard to production methods that are outside the company concerned and outside the respective territory. The stocktake in Chapter 2 shows recent approaches in this direction. The EU conflict minerals regulation (see Section 2.3.6) and the CSR directive (see Section 2.3.5) include certain due diligence and transparency duties regarding whether and how the company internally implements due diligence in respect of conditions abroad. In addition, import or sales restrictions can be combined with specific due diligence duties for companies to check the origin of the product or materials. These approaches could be expanded or strengthened with regard to environmental aspects.

To the extent that this approach also includes trade restrictions, international trade law is a potential impediment that prohibits such measures. As mentioned, this is not a new issue, and at least WTO law provides legal opportunities to **justify such measures**, in particular if they are not discriminatory (see Sections 2.1.4.1 and 2.1.4.2).

4.1.5 Linking binding and non-binding approaches - due diligence and reporting

One conclusion of this study is that it is not sufficient to let the numerous non-binding standards and the few binding rules simply co-exist next to each other and work separately. The approach using duties of due diligence and transparency is one option for linking non-binding and binding standards: The EU conflict minerals regulation (see Section 2.3.6) and the CSR directive (see Section 2.3.5) demonstrate a possibility to give legal effect to non-binding approaches.

This combination does not simply make the non-binding standards binding by copying their content into legal rules. Instead, the **legal rules refer to non-binding standards**. The technique used by the EU conflict minerals regulation is to make a direct reference, as it names the OECD Guidance (see Section 2.2.1.1) as the standard that the companies partly have to comply with. The EU CSR directive takes a different approach: It provides that companies can rely on non-binding “frameworks” in order to fulfil its legal reporting obligations under the directive, and explicitly mentions some of them in the recitals.

By using this technique, law-makers avoid having to elaborate and determine the details of the desired conduct, i.e. of what it wants companies to do. Instead the law-maker can refer to standards that have already been elaborated and which may be widely accepted and more likely to be implemented and complied with. There is a wide choice of non-binding standards to which binding rules can refer. If the non-binding standard was developed internationally and has gained acceptance by its target actors, it might be more likely that referring to it does not lead to an unlevel playing field.

¹³⁷⁷ See chapter 2.2.1.2.

Reporting and due diligence duties might also provide better, or more realistic, opportunities for **determining environmental standards** than by direct regulation. As a basic model, there is a binding but abstract obligation to apply due diligence, which refers to otherwise non-binding environmental standards in order to define which diligence is "due" and what the enterprise has to do in order to fulfil its obligations. This approach could be one possibility to deal with the complexity of value and supply chains. It is explicitly mentioned in the United Nations Environment Assembly's 2019 resolution on mineral resource governance.¹³⁷⁸ It is interesting, for instance, that the EU's conflict minerals regulation requires companies to incorporate their supply chain policy into their contracts with suppliers. Since the policy has to be consistent with the OECD Guidance, the latter is therefore to some extent passed on to suppliers.

On the other hand, there are **questions** relating to this approach: To what extent should the lawmaker leave the elaboration of environmental standards to an outside institution and then merely refer to it, instead of stating in the law what the obligations and standards are? Moreover, the approach of using due diligence duties in management is not an end in itself: As a steering technique, their objective would be to mitigate negative environmental impacts.

A legal reference to non-binding standards also begs the question who defined them and how much **legitimacy** they have, even if their substance is acceptable. The lawmaker should bear that in mind. It should also be considered when and how these standards may change. Would the reference to the standard dynamically and automatically point to the *current* version of the standard? Another issue is legal **clarity**: It is a fundamental principle of the rule of law that especially the persons who are obliged by a law have to know with sufficient clarity what their obligations are. But clarity is also a matter for others, e.g. the people affected by mining activities as well as the general public. If the law simply refers to a due diligence standard that was drafted to be non-binding, is it sufficiently clear what the company has to do? For instance, the EU conflict minerals regulation refers to the OECD Guidance. But the OECD Guidance contains references to other non-binding standards and documents: For instance, it contains references for "further guidance" to the Multilateral Investment Guarantee Agency's "Voluntary Principles on Security and Human Rights". It also includes "recommended indicators for measuring improvement" which refer to indicators developed by the Global Reporting Initiative. Given that the EU conflict minerals regulation imposes a legal obligation on companies to comply with the OECD Guidance, to what extent are the standards referred to in the OECD Guidance also part of that legal obligation and due diligence, or merely advisory?

The approach of addressing environmental impacts of mining through due diligence obligations instead of direct environmental standards, may entail some type of external **certification**. The state (or the EU) and its authorities might find it difficult to monitor compliance with due diligence obligations with their usual administrative structure and resources. The same goes for compliance of mining activities abroad with environmental standards that underpin the due diligence obligation. Against this background, in this approach administrative implementation and enforcement may at least to some extent be limited to trusting the certification. There is also the risk of providing incentives to make certification relatively easy – for instance where certification is a business model or in order to have many participants in the standard. As a consequence, additional standards are required to ensure that the certification schemes are good enough and that administration does not simply derogate from its own responsibility by relying on them.

Alternative or additional options include requiring companies to exercise self-monitoring, and introducing the possibility of legal action for parties affected by the mining activity abroad in case the company does not comply with its due diligence obligations - as in the French law on the duty of vigilance.

¹³⁷⁸ UNEA resolution „Mineral resource governance“, of 9 March 2019, UNEP/EA.4/L.23, para. 5(b).

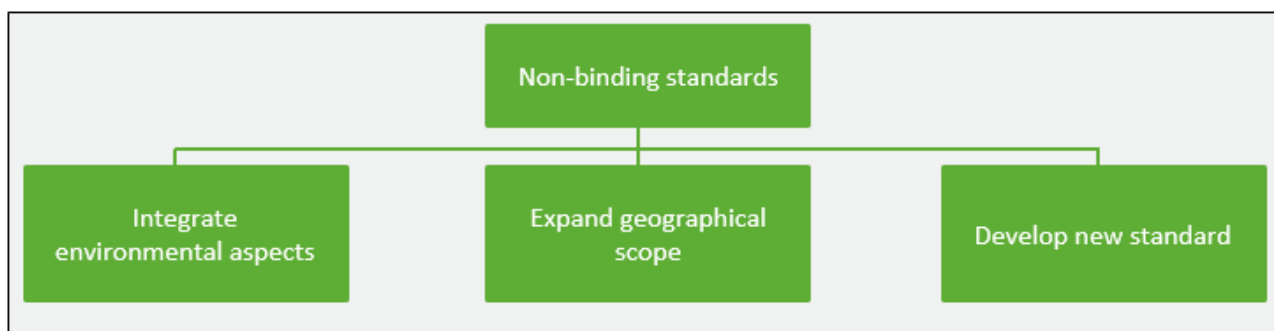
Against this background, we discuss and assess to what extent the due diligence and certification approach could be extended in order to mitigate local negative environmental impacts of mining activities. Given that mining activities and their environmental impact are barely addressed in binding international law (except for areas outside national jurisdiction), this approach could be a “second best” if regulating the mining activities abroad appears to be unrealistic. The EU conflict minerals regulation could be a basis for more specific binding obligations. One option could be to amend the conflict minerals regulation to also include references to non-binding *environmental* standards.

4.2 Non-binding standards

There are various non-binding standards for mineral extraction. Although some of them cover certain aspects of **environmental protection**, there is still room for improvement. Non-binding standards for conflict minerals and severe human rights violations could serve as an example.

There are different ways to make use of non-binding standards to strengthen the international governance of mineral extraction (see Figure 28).

Figure 28: Approaches for non-binding standards



Source: Own figure, Ecologic Institute

In general, non-binding standards may be developed by different actors and by various means:

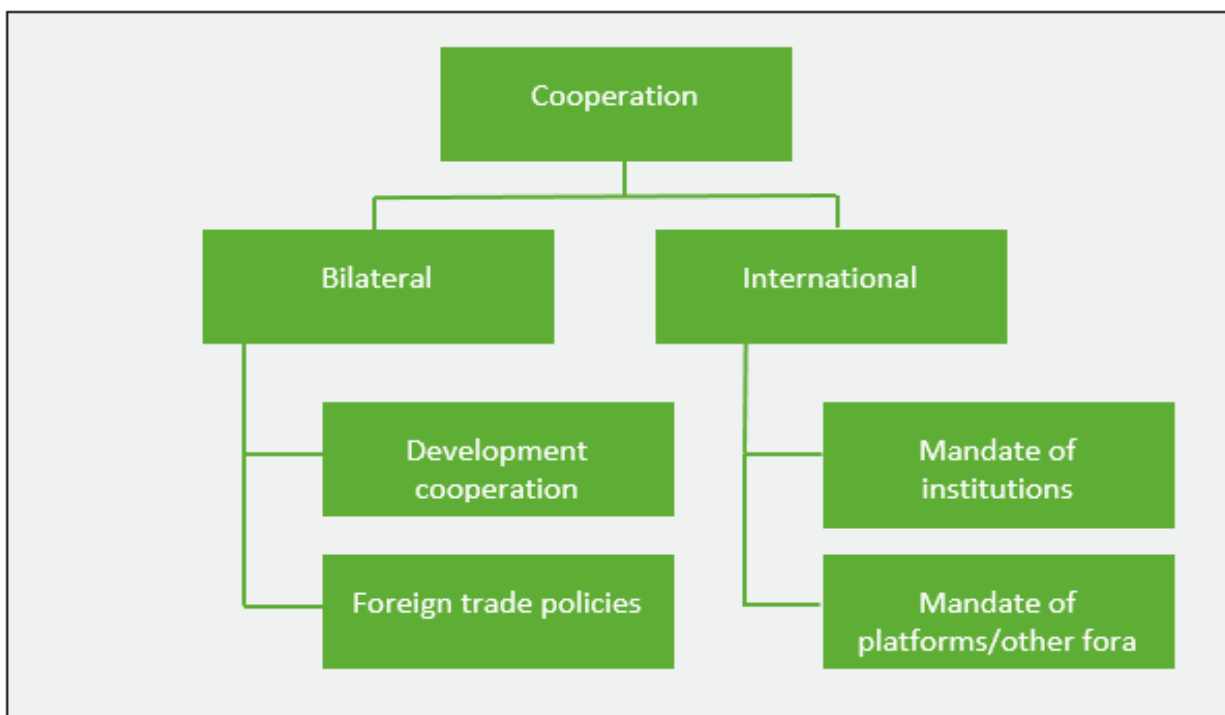
- ▶ Non-binding standards may be developed nationally, regionally or internationally depending on the political will and the necessity of having a broad geographical scope.
- ▶ Inter-governmental or private international organisations may develop non-binding standards for economic entities involved in mining.
- ▶ Standards may address different actors of the supply chain from the mining company to the smelter or the processor.
- ▶ The non-binding standards may relate to precautions for environmental protection at the mining site or to due diligence in the supply chain.
- ▶ Non-binding standards may be used by economic entities on a voluntary basis or may be rendered binding via national, European or international regulations.

4.3 Cooperation

Cooperation can strengthen the implementation of environmental standards during mineral extraction - either as a stand-alone cooperation with the country of origin or linked with commitments imposed on the country of origin.

There are various ways to structure the entry points. One way is to differentiate between bilateral and international cooperation (see Figure 29).

Figure 29: Entry points for instruments to strengthen cooperation



Source: Own figure, Ecologic Institute

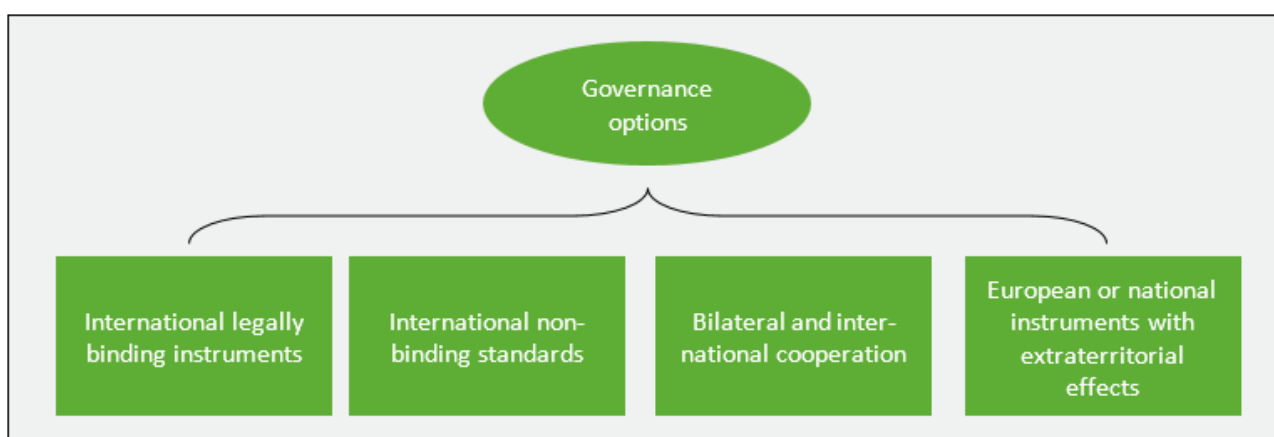
There are various starting points to structure cooperative instruments strengthening international governance for mineral extraction:

- ▶ Development cooperation may be linked the implementation of binding or non-binding standards for mineral extraction.
- ▶ Access to minerals via foreign trade policies towards countries of origin can be linked with cooperation regarding the environment-friendly extraction of such minerals.
- ▶ Currently, there are international platforms, but no international institution responsible for mineral extraction. The mandate of an existing organisation may be adjusted or a new organisation may be set up.

5 Policy options and recommendations

This chapter sets out a range of specific policy options and recommendations that the German Federal Government could pursue to strengthen the international governance of mineral extraction. They address international legally binding instruments, non-binding global standards as well as international and bilateral cooperation. Particular attention was given to European and national legislation with “extraterritorial effects”, i.e. obligations on actors further down the supply chain who then exercise their leverage on the demand side to improve environmental and social standards of mining activities abroad. This includes the potential of due diligence obligations to mineral extraction, the option to link such legal acts with non-binding standards, and options to improve implementation and enforcement.

Figure 30: Cluster for policy options and recommendations



Source: Own figure, Ecologic Institute

In selecting and drafting these policy options and recommendations, the project team considered criteria such as the relevance of the respective instrument, its feasibility, the political will to adopt such an instrument, the timeline for its adoption as well as its impact for environmentally sound mineral extraction.

5.1 International legally binding instruments

5.1.1 Currently small prospects for a new stand-alone international mining treaty

Pursuing a new stand-alone treaty on mineral extraction could fill a gap in addressing sector-specific risks and impacts. However, at this stage, such a treaty does not seem politically viable. In case the German government wants to pursue a new stand-alone international mining treaty, it would need to create – or wait for – the right moment to put it on international political agenda.

Description: International environmental treaties do not require states to implement measures to address the specific environmental and social risks and impacts of mineral extraction. A new stand-alone international mining treaty could address this shortcoming. It could contain certain minimum requirements such as:

- ▶ **Permit:** Requirements to introduce a permit procedure for mineral extraction that covers social and environmental aspects, to apply the best available technologies and best practice standards for mineral extraction – e.g. for waste water discharge or safety management, and to implement a domestic environmental impact assessment procedure as part of the permit procedure. Even if most countries already have permit requirements, these do not necessarily cover environmental and social aspects. Also, enforcement is usually weak due to institutional weaknesses and a lack of capacity. Moreover, an international legal obligation would add at least a minimum of international accountability and transparency.

- ▶ **Enforcement:** Requirement to introduce national mechanisms that allow affected local communities or environmental organisations to enforce environmental and social standards – either via a complaint mechanism or access to justice.
- ▶ **Standards:** Various organisations have developed social and environmental standards for mineral extraction. The international mining treaty could either build on those standards or reference them.

It is, however, also possible to pursue a more holistic approach that goes beyond such minimum requirements and aims to place mining activities in the broader context of sustainable development. In a 2019 report on minerals governance, the **International Resource Panel** developed a model for mineral resource governance for sustainable development that could serve as starting point for further discussions about the content of an international mining treaty.¹³⁷⁹ The report emphasises the developmental aspect of mining, but also recognises the “absolute necessity” to decouple economic growth from negative environmental and social impacts.¹³⁸⁰ It also acknowledges that economic benefits “tend to trump” environmental concerns, that corporate social responsibility activities have so far been inadequate, and that security of supply is the main concern for developed countries and development for most resource-rich countries.¹³⁸¹ As a response, the IRP report remains quite vague with regard to concrete governance options. Its objectives for a “holistic approach” are couched in opaque language on “enable trust to grow”, “align understanding of what constitutes shared value” and general economic aspects such as “local content” and “value addition”. The suggestion is to use the revenue from the mineral resources to address the entailing social, environmental and economic externalities,¹³⁸² which could raise questions of creating perverse incentives. Its concept of a “sustainable development licence to operate” appears to be a catch-all call for addressing the well-known challenges in a “wide range of policy domains” by “different actors”.¹³⁸³ The suggested policy framework is a list of “what” to achieve, but does not address “how”, i.e. the policies and governance options to pursue and achieve these goals. The conclusion on international governance reform is basically devoid of normative options. The only issue for which the IRP suggests a treaty or international agency is for coordinating supply and demand.¹³⁸⁴

The United Nations Environment Assembly has recognised the findings of the IRP’s 2019 report (see above) on minerals governance and the need for further action.¹³⁸⁵ It requested the Executive Director to undertake an overview of existing assessments of different governance initiatives and approaches and report to UNEA-5 in 2021. This could be an opportunity for Germany to feed in its views.

While a stand-alone international mining treaty could be a legal cornerstone of international governance of mineral extraction, implementation by state parties and their local authorities will be challenging, as will be regulation of small-scale mining.¹³⁸⁶ Also, the political opportunity for such an international treaty is currently small. Mineral extraction does not necessarily have transboundary impacts and developing countries currently focus on its benefits for economic growth. This is shown by the low

¹³⁷⁹ International Resource Panel (2019): Mineral Resource Governance in the 21st Century. Summary for policymakers and business leaders, available at <http://www.resourcepanel.org/reports/mineral-resource-governance-21st-century>. At the time of writing, the full report had not been published.

¹³⁸⁰ IRP (2019), p. 22.

¹³⁸¹ IRP (2019), p. 30-32.

¹³⁸² IRP (2019), p. 32. The report’s use of the term “leverage” appears to be not quite fitting.

¹³⁸³ IRP (2019), p. 40.

¹³⁸⁴ IRP (2019), p. 40, 51-52.

¹³⁸⁵ UNEA resolution „Mineral resource governance“, of 9 March 2019, UNEP/EA.4/L.23, para. 1.

¹³⁸⁶ Garner (2004): The Case for an International Mining Law, available at https://commdev.org/userfiles/files/1429_file_Pub_The_20Case_20for_20an_20International_20Mining_20Law.pdf (last accessed on 28 February 2019).

commitment to the ILO Convention on the Safety and Health in Mines that so far has been ratified by 33 countries only.

The political effort that would be required at this stage to create support for and start negotiations on a treaty appears out of proportion to the potential gain. The following options could be pursued as alternatives to a stand-alone international mining treaty:

- ▶ The German government could try to include mining in the negotiations towards a Global Pact for the Environment. This is a UN General Assembly initiative with a view to making recommendations to the General Assembly in June 2019 on options for addressing gaps in international environmental law.¹³⁸⁷ At this stage it seems possible that negotiations will continue in some form based on the recommendations. While the initiative is an opportunity to address and include issues that are currently not adequately supported by legal norms, there are several challenges to consider: Mining has so far played virtually no role in these negotiations¹³⁸⁸ and it is likely to become increasingly difficult to include new issues as negotiations progress. Moreover, it is unclear which legal form of a potential outcome would take.
- ▶ The German government should explore how to feed in its views into the fifth session of the United Nations Environment Assembly and the preparatory work by the Executive Director on minerals governance.
- ▶ The German government could assess options to support dynamics in the UN Human Rights council regarding resolution 26/9 of 2014 which decided *“to establish an open-ended intergovernmental working group on transnational corporations and other business enterprises with respect to human rights, whose mandate shall be to elaborate an international legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business enterprises.”* There is a strong conceptual and legal-practical link of human rights and environmentally detrimental behaviour of enterprises, prominently in the mining sector. The establishment of human rights obligations of transnational corporations could therefore strengthen accounts of “rights-based” environmental protection.¹³⁸⁹

Leverage on: A treaty would address states (and the European Union). Subject to specific content, a treaty would be overarching and cross-cutting.

Need for additional research: In case the German government decides to pursue an international mining treaty, further research is necessary to set up a suitable set of obligations and implementation mechanisms:

- ▶ Which obligations for countries would lead to the set-up of suitable governance structures in the countries of origin that furthers sustainable development?
- ▶ Which additional support would be necessary to ensure countries can implement their international obligations effectively – see also Section 5.3.3?

5.1.2 Strengthen environmental impact assessment

Environmental impact assessment is a tool to identify and assess the impacts of projects, such as mining projects, on the environment. It provides the basis for an informed permit decision and can guide the competent authority in its decision-making process. The competent authority may refuse the permit, if the EIA was either not performed properly or was defective. Based on the results of the environmental impact assessment, the competent authority may condition the permit to the fulfilment of certain requirements. Hence, an international obligation on states to subject mining projects to an envi-

¹³⁸⁷ UN GA resolution 72/A/L.52 of 7 May 2018. See <https://globalpact.informea.org/>.

¹³⁸⁸ See <https://globalpact.informea.org/> for information on the progress of the negotiations.

¹³⁸⁹ See further below in Section 5.4.

Environmental impact assessment is an important tool to ensure environmentally sound mineral extraction. Such an international obligation may be derived from a treaty (see Section 2.1.2.9 for the Espoo Convention and Section 2.1.2.8 for the Biodiversity Convention) or from customary law (see Section 2.1.1.7).

5.1.2.1 Support expansion of the Espoo-Convention beyond the UNECE area

The German government could support efforts of the UNECE Secretariat to expand the geographical scope of the Espoo Convention beyond the UNECE area.

Description: Having been ratified by over forty countries, the Espoo Convention (see Section 2.1.2.9) is the leading instrument in the field of transboundary environmental impact assessment (EIA). However, its geographical scope is formally limited to the UNECE area. In 2001, the first Amendment to the Espoo Convention opened the convention for accession by all member states to the United Nations, which would further increase its political weight. For this amendment to enter into force, however, thirteen ratifications are still missing. The German government could support efforts of the UNECE Secretariat to secure the required number of ratifications, e.g. by raising the importance of the Convention in adequate political settings. This could be achieved in mid-term with medium political efforts. Once the first Amendment enters into force and becomes operational, the German government could support the accession of UN member states to the first Amendment as well as the implementation of the Espoo Convention in these countries.

The advantage of such an extension would be that the Espoo Convention contains a well-established set of rules that could help to identify transboundary impacts of mining internationally. In particular, while other international treaties, e.g. the CBD, also require an EIA for certain activities or to prevent certain impacts, the Espoo Convention is the only international instrument that details the procedure. The disadvantage of the proposal is that the Espoo Convention does not apply to environmental impacts within the boundaries of the extraction state, i.e. it does not address EIA for domestic activities without potential transboundary impacts. In contrast, the CBD does so, but EIA procedures must only be introduced “as far as possible and appropriate”, which allows states to escape any form of EIA; since the CBD is a framework convention, any attempt for stricter provisions on EIA would certainly meet strong political resistance and can thus not be recommended.

Leverage on: The expanded Espoo Convention would potentially address all UN Member States and regional economic integration organizations.

5.1.2.2 Expand the duty to conduct an environmental impact assessment to projects with solely national impacts

According to the findings of the ICJ, the duty to conduct a transboundary environmental impact assessment for projects with likely significant environmental impacts constitutes a customary duty in the transboundary context. The German government could seek to expand the scope of this duty to mining projects with significant impacts on the environment within the territory of the home country.

Description: The duty to conduct an EIA is recognised by international customary law for any kind of activity likely to have a significant adverse impact on the environment, including activities related to the extraction or other activities concerning abiotic resources (see Section 2.1.1.7). However, its scope of application is unclear. The relevant ICJ judgements seem to limit the customary duty to conduct an EIA to a transboundary context. However, it is not yet settled in case law whether the duty also applies to a purely domestic context or to areas beyond national jurisdiction. According to an advisory opinion of the Seabed Disputes Chamber of the International Tribunal of the Sea (ITLOS), the ICJ’s reasoning may also apply to activities with an impact on the environment in areas beyond national jurisdiction like the deep seabed. Although there is no precedent yet for a purely domestic context, the German government could seek to expand the scope of this duty to mining projects with significant impacts on

the environment within the territory of the home country. This could be done by continuous statements in relevant fora that Germany is of the opinion that the customary EIA duty also applies to domestic matters. Such a position could especially refer to Principle 17 of the Rio Declaration that describes EIA as national instrument, and to Art. 14 CBD which requires introducing EIA in a domestic context “as far as possible and appropriate”.¹³⁹⁰

Such a task would require high, continuous and systematic efforts for a long time. The advantage of a customary EIA duty in the domestic context would consist in ensuring that authorities take the environmental impacts of projects into consideration, thus providing for informed decision making. However, it would be challenging to define what activities would require an environmental impact assessment. The disadvantage of the proposal is that not only the scope but also the content of the customary EIA duty is unclear. While the ICJ left it to the states to determine the specific content of the impact assessment required, it specified some details, most notably including that the obligation involves continuous monitoring of the activity’s effect on the environment. In this respect, the Espoo Convention as the only international instrument that details the procedure may shape the content of that obligation, e.g. through providing best practice. Likewise, the list of relevant activities in Appendix I of that convention may be used as indicator for the activities likely to have significant adverse impact on the environment. These are arguments for supporting the expansion of that convention beyond UNECE members even though it only applies to cases with transboundary impact.

Leverage on: The expanded duty to conduct an EIA for projects with solely national impacts would address states.

5.1.3 Push at European level for environmental standards in Free Trade Agreements

Mid-term: Germany could promote the integration of environmental and social standards in the chapters on trade and sustainability in future free trade agreements and work via the Council to ensure the negotiating directives given to the European Commission have a clear mandate to that end. One opportunity to put the topic on the agenda is the Council presidency from July to December 2020.

Description: New generation free trade agreements not only include chapters on raw materials to improve and secure access, but also chapters on trade and sustainable development. Examples are the free trade agreement with Colombia and Peru (see Section 2.1.4.4), the association agreement with Central America¹³⁹¹ and the free trade agreement with South Korea¹³⁹². The content of such chapters depends on the respective country and its trade relationship with the European Union. Usually, the parties to the free trade agreement reaffirm their commitment to implement multilateral environmental agreements and agree to effectively enforce their environmental laws to avoid effects of weak or selective enforcement on trade. The chapter on trade and sustainable development in the association agreement with Central America also contains provisions on trade in forest products and fish products. Implementation of the chapter on trade and sustainable development is usually overseen by a committee or board composed of government representatives that meet on a regular basis. Issues arising between the parties concerning implementation of the standards set by the chapter on trade and sustainability can be solved via consultation or dispute settlement.

Environmental and social standards for mineral extraction as well as support mechanisms linking their implementation in the country of origin to financial or technical assistance and capacity building

¹³⁹⁰ See Dupuy and Viñuales (2015) at 70; Birnie et al (2009) at 167.

¹³⁹¹ Agreement establishing an Association between the European Union and its Member States, on the one hand, and Central America on the other, OJ L 346 of 15 December 2012.

¹³⁹² Free trade Agreement between the European Union and its Member States, of the one part, and the Republic of Korea, of the other part, OJ L 126 of 14 May 2011.

can be integrated in chapters on trade and sustainable development of free trade agreements. In comparison with a stand-alone international treaty on mining, the integration of environmental and social standards in free trade agreements has several advantages:

- ▶ Access to minerals can be linked to standards that reflect the situation of the country of origin and its trade relationship with the European Union.
- ▶ The advantages of a free trade area with the European Union can create an incentive for the country of origin to agree on ambitious standards.
- ▶ Integrating environmental and social standards into free trade agreements is an approach that the European Union and also other countries – for example the United States and Canada – are already taking.
- ▶ Implementation of the chapter on trade and sustainable development is overviewed by a committee or board that meets on a regular basis and can identify challenges and agree on support measures.

However, using free trade agreements as a vehicle for enforcing environmental and social standards for mineral extraction in countries of origin faces several challenges:

- ▶ The geographical scope is limited as this approach would, at least initially, only apply to new free trade agreements. Also, the European Union is only pursuing free trade areas with a limited number of countries.
- ▶ So far, the dialogues in the committee and board have not proven to be an effective tool to facilitate implementation of the standards enshrined in the chapters on trade and sustainable development.
- ▶ Under EU law, Germany cannot conclude Free Trade Agreements with third countries, as this falls within the competence of the European Union.

According to Article 3 (1) (e) TFEU, the exclusive competence to conclude free trade agreements rests with the European Union – and also covers trade and sustainable development.¹³⁹³ Still, there are various opportunities for Germany to push for the integration of environmental and social standards for mineral extraction in such EU free trade agreements and strengthening the enforcement mechanisms of such free trade agreements:

- ▶ According to Article 207 (3) and Article 218 TFEU, the European Commission can only enter into the negotiation of free trade agreements upon a mandate given by the Council and has to follow associated the negotiating directives. Germany could ensure that such directives cover the integration of environmental and social standards for mineral extraction. Also, free trade agreements can only be signed by the EU upon decision by the Council – giving the Council the right to approve the final text and to assess whether the negotiating directives have been implemented. For each free trade agreement to be negotiated, Germany can use its vote in the Council to discuss environmental and social standards for mineral extraction. Germany could also use its Council presidency from July to October 2020 to put this topic on the agenda.
- ▶ The European Commission has published its strategy “Trade for all – Towards a more responsible trade and investment policy”¹³⁹⁴ in 2015. Accordingly, it plans to secure access to raw materials by proposing a raw material chapter in each free trade agreement, and to promote sustainable development by increasing the priority given to sustainable management and conservation of natural resources in free trade agreements. The strategy is up for consideration by Member States in the Council and by the European Parliament. Germany could initiate a Council conclusion or resolution that reflects the necessity to integrate environmental and social standards for mineral extraction

¹³⁹³ CJEU Opinion 2/15 of 16 May 2017, EU-Singapore Free Trade Agreement, para. 139 et seq.

¹³⁹⁴ European Commission (2015a): *Trade for All – Towards a more responsible trade and investment policy*, Communication, COM(2015) 497 of 14.10.2015, available at <https://ec.europa.eu/transparency/regdoc/rep/1/2015/EN/1-2015-497-EN-F1-1.PDF> (last accessed on 28 February 2019).

in free trade agreements. The European Commission has published a non-paper on “Trade and Sustainable Development (TSD) chapters in EU Free Trade Agreements (FTAs)”¹³⁹⁵ in 2017 that puts two options for better enforcement for discussion: (1) a more assertive partnership on trade and sustainable development and (2) a model with sanctions for non-compliance with standards. Germany could engage in the discussion to ensure future free trade agreements have effective enforcement mechanisms.

Leverage on: Environmental and social standards in free trade agreements would address countries of origin that enter into a free trade agreement with the EU in the future.

5.1.4 Integrate aspects of mineral extraction in the implementation and further development of existing international treaties

Neither the UN Convention to Combat Desertification nor the UNECE Convention on the Protection and Use of Transboundary Watercourses take a sector-specific approach. However, considering the obligations for parties included as well as the environmental and social impacts covered, both conventions provide for opportunities to integrate aspects of mineral extraction in the implementation and further development.

5.1.4.1 UN Convention to Combat Desertification (UNCCD)

Mid-term: Germany could initiate the development of guidelines for responsible mining in drylands and provide financial resources to affected country parties for activities in drylands that seek to implement environmental and social standards for mining.

Description: Key obligation under the UN Convention to Combat Desertification (UNCCD) is the preparation and implementation of national action programmes by affected developing country parties (see Section 2.1.2.10). The implementation analysis in selected countries has discovered that different affected developing countries have included mineral extraction in their national action programmes – either as a driver for desertification or as an opportunity for alternative livelihoods in drylands. However, a clear vision for mining in drylands that respects environmental and social standards is missing under the Convention.

Germany could bring mineral extraction in drylands on the agenda of the UNCCD by initiating the development of guidelines for affected country parties. Accompanying this, Germany could mobilise resources for activities in affected country parties implementing such guidelines.

- ▶ Article 31 UNCCD determines the procedures for the adoption or amendment of annexes to the Convention. Although the parties have not taken the opportunity up to now, they can adopt technical implementation annexes. Germany could initiate the development of a technical annex on mineral extraction in drylands that guides affected developing country parties in the identification of appropriate actions that can be integrated in the national action programmes.
- ▶ Article 22 UNCCD gives the Conference of the Parties (COP) the mandate to take the decisions necessary to promote the effective implementation of the Convention. Germany could initiate the development of a COP decision that guides affected developing country parties in the identification of appropriate actions that can be integrated in the national action programmes.
- ▶ Article 20 UNCCD requires developed country parties to mobilise resources. Germany could mobilise financial resources and set up programmes in affected developing country parties to integrate activities related to mineral extraction in drylands in their national action programmes and to implement such activities.

¹³⁹⁵ European Commission (2017a), *Trade and Sustainable Development (TSD) chapters in EU Free Trade Agreements (FTAs)*, Non-paper of the Commission services of 11.07.2017, available at http://trade.ec.europa.eu/doclib/docs/2017/july/tradoc_155686.pdf (last accessed on 28 February 2019).

Guidelines for mineral extraction in drylands can help affected developing country parties that have identified mineral extraction as a driver for desertification or land degradation and wish to take action. However, there are several constraints:

- ▶ Up to now, the COP has restrained from adopting sector-specific guidelines under the UNCCD. Considering other problems countries are facing in regard to their drylands, mineral extraction may not be a priority on the agenda.
- ▶ After the adoption of the UN Sustainable Development Goals the UNCCD claimed leadership to implement Target 15.3 on Land Degradation Neutrality. The related activities require all available capacity and make the success of additional initiatives unlikely.
- ▶ As the implementation analysis has shown, national action programmes have not been an effective instrument to initiate change. There is hardly any proof that actions identified by affected developing country parties have been implemented.

Despite these constraints, initiating a discussion about standards for mineral extraction in drylands would raise awareness in affected country parties that need to take action and developed country parties that could provide financial resources.

Leverage on: Guidelines for responsible mining under the UNCCD would address affected developing countries that exploit mineral in drylands.

5.1.4.2 UNECE Convention on the Protection and Use of Transboundary Watercourses

Short-term: Germany could initiate the development of guidelines for waste-water discharge from mineral extraction, set up projects to implement the obligations of the UNECE Water Convention for the mining sector, and lobby for the accession to the UNECE Water Convention in countries outside of the UNECE region.

Description: Article 3 of the UNECE Water Convention establishes obligations for the prevention, control and reduction of transboundary impacts associated with human activities – and therefore also mineral extraction (see for an analysis of the Convention Section 2.1.2.5). These obligations are rather specific: Parties have to take measures, inter alia,

- ▶ to prevent, control and reduce the emission of pollutants at source;
- ▶ to provide for prior licensing of waste-water discharges from point sources; and
- ▶ to set limits for waste-water discharges in permits based on the best available technology.

Therefore, the discharge of waste-water from mineral extraction may require a permit that sets limits based on best available technologies. However, the scope of this obligation is rather limited: First, the waste-water needs to be discharged into a transboundary watercourse – defined as surface or ground waters which mark, cross or are located on boundaries between two or more states. And second, the waste-water discharge needs to have a transboundary impact – defined as a significant adverse effect on the environment. Another limitation is the – at least for now – limited geographical scope of the Convention. Since its global opening to the UNECE to all UN Member States, only Chad has opted for an accession.

Still, the obligation may be of relevance for mineral extraction and therefore be a starting point for regulating the impacts of mineral extraction for one environmental compartment, i.e. water. To use the entry points for a regulation of waste-water discharges from mineral extraction in a transboundary context, Germany could pursue the following:

- ▶ A project with a focus on tailings management facilities supported by Switzerland has started 2017 in Kazakhstan.¹³⁹⁶ Germany could financially support projects to strengthen the safety of mineral extraction within the context of the UNECE Water Convention.
- ▶ Experts from UNECE Member States have developed document to guide implementation of the UNECE Water Convention in 2015.¹³⁹⁷ While this document is quite comprehensive, it only contains few examples on mineral extraction and hardly any information on prior licensing of waste-water discharges. A specific guidance on the latter issue dates from 1996.¹³⁹⁸ Germany could initiate the development of a guidance document prior licensing for mineral extraction.
- ▶ Since its global opening, only Chad has decided to accede to the UNECE Water Convention. Germany could use diplomatic means to recommend countries, especially countries with extraction sites close to borders, to accede to the Convention.

However, considering the limitations of the UNECE Water Convention described above and the reluctance of especially developing countries to accede to an international treaty that was designed for the circumstances in the UNECE region, the success of such activities may be limited.

Leverage on: Guidelines and projects for waste-water discharge of mineral activities would assist parties to the Convention in the application of the different obligations to the extraction of mineral resources.

5.1.5 Engage in ongoing activities under UNCLOS

The German government is actively involved in the process of developing Draft Exploitation Regulations for the exploitation of mineral resources in the deep sea-bed. Therefore, we do not include any recommendation concerning the exploitation of mineral resources in the deep sea-bed under UNCLOS.

Activities in the deep sea-bed have to be conducted in accordance with the Mining Code that is continuously developed by the International Seabed Authority. The Mining Code already contains regulations for the exploration of different metals that have more elaborated environmental requirements than Part XI of the UNCLOS and the Implementing Agreement (see Section 2.1.2.2 for an analysis of UNCLOS and the Implementation Agreement). Recent Draft Regulations for Exploitation show that higher environmental standards are required for the actual exploitation of resources in the Area. The German government is actively involved in the process of developing these draft regulations, has criticised that the current draft regulations are not sufficiently detailed and has provided corresponding suggestions (see analysis to UNCLOS and Implementing Agreement above). Therefore, there is no need for any recommendations to the government concerning the exploitation of mineral resources in the deep sea-bed under UNCLOS and the Implementing Agreement.

5.1.6 Promote ratification of ILO Conventions

The German government could promote the ratification of the ILO Convention on the Safety and Health in Mines (C176).

Description: The ILO Convention on the Safety and Health in Mines (see Section 2.1.3.3) aims to prevent any fatalities, injuries or ill health affecting workers or members of the public arising from mining operation. To achieve these objectives, it requires parties to establish obligations for competent authorities, employers and workers in their national laws. While there are no similar obligations for damage to the environment arising from mining operation, positive effects on the environment can be

¹³⁹⁶ <http://www.unece.org/environmental-policy/conventions/industrial-accidents/areas-of-work/assistance-programme/envteiaapimplementation/pilotproject.html> (last accessed on 28 February 2019).

¹³⁹⁷ UNECE (2015): Guide to Implementing the Water Convention, available at https://www.unece.org/fileadmin/DAM/env/water/publications/WAT_Guide_to_implementing_Convention/ECE_MP.WAT_39_Guide_to_implementing_water_convention_small_size_ENG.pdf (last accessed on 28 February 2019).

¹³⁹⁸ UNECE (1996), available at <http://www.unece.org/fileadmin/DAM/env/water/documents/licensingwwguidelines.pdf> (last accessed on 28 February 2019).

presumed. Despite its potential, only 33 countries have joined the convention so far. The German government could promote the ratification of the ILO Convention on the Safety and Health in Mines via different pathways:

- ▶ An obligation to join the ILO Convention and to implement it could be integrated in future free trade agreements with third countries.
- ▶ The German government could raise the importance of the ILO Convention in adequate political settings.

Leverage on: All ILO members that join the Convention on the Safety and Health in Mines will need to implement its obligations and will thereby establish structures that can also benefit environmental protection from mining operations.

5.2 Non-binding international standards

5.2.1 New worldwide non-binding mining standard

For political reasons, it is recommended that Germany or the European Union initiate an international process involving China and developing and emerging countries to develop a new worldwide non-binding mining standard.

Short-term: Strengthening diplomatic relations with China and developing/emerging countries in the field of raw materials policy and responsible mining.

Mid / long-term: A worldwide non-binding mining standard can serve as a reference document, for example for trade agreements, cooperation agreements and CSR activities along the value chain.

Description: Considerations on an international legally binding treaty are discussed in Section 5.1.1 with the conclusion that it will require substantial political efforts to start negotiations on such a treaty and the political will in this regard appears limited at this stage.

However, for political reasons, the international development of a non-binding global standard for responsible mining is a very interesting approach. There are currently a large number of initiatives and a large number of standards or guidelines addressing the topic from different perspectives. The IRP has identified the proliferation of standards as a governance challenge.¹³⁹⁹ Put simplified, there are a large number of "western" standards, most of which were initiated by stakeholders from industrialized countries, and a growing number of Chinese standards. The "western" and "eastern" standards still stand side by side, and the developing countries in which mining takes place were not or only to a lesser extent involved in the development of these standards.

A forward-looking international dialogue on responsible mining can build bridges by jointly developing an international non-binding standard. Even without a legally binding effect, such a process would have a high political value and the resulting standard could serve as a reference document, for example for government activities such as trade agreements and cooperation agreements, and for companies' CSR activities along the value chain. The design of such a standard could include different levels. For example, both low level and more ambitious best practice approaches could be formulated.

In addition to the political value of such a process, a global non-binding standard is also expected to make a practical contribution to better local performance, as mining companies, public authorities and downstream companies have a clear reference and benchmark. This indirectly also supports German companies which are active in international mining, mainly as suppliers, and have a strong interest in uniform high standards and their implementation.

The roles in such a process are to be discussed. For example, Germany or EU could invite to such a dialogue and provide the infrastructure. German or European support for a global institution such as

¹³⁹⁹ IRP (2019), p. 28.

UNEP to steer the process is also conceivable. The Intergovernmental Forum (IGF) would be a key stakeholder for developing countries; other key players would be the World Bank including the finance institution working along the Equator principles, various stakeholders of responsible mining initiatives (e.g. IRMA), mining associations (ICMM, MAC, etc.) and stock exchanges (e.g. LME). On the Chinese side, relevant stakeholders are government institutions as well as the China Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters (CCCME) and different institutions from the finance sector (e.g. Asian Infrastructure Investment Bank and China Banking Regulatory Commission (CBRC)).

Leverage on: A joint development of a global mining standard could involve multiple stakeholders (governments, companies, initiatives) across the globe and contribute to international raw material diplomacy and transparent benchmarking. This is assumed to be only effective when backed with sufficient political momentum, also from other world regions. If this is not the case, such an initiative might as well further contribute to a “mushrooming” of standards in the mining sector.

5.2.2 Integrate environmental reporting into EITI

Short-term: The German environmental ministry should initiate a discussion on whether environmental reporting duties can be explicitly integrated into the Extractive Industries Transparency Initiative (EITI) – and if yes, how they should be integrated.

Description: The Extractive Industries Transparency Initiative (EITI)¹⁴⁰⁰ founded in 2003 has become a global standard for the open and accountable management of oil, gas and mining industries resources. It is the only international multi-stakeholder initiative involving a large number of non-governmental organisations, companies and governments. So far, fifty-two resource-rich countries from around the world and resource-poor countries (like Germany, the United Kingdom and the Netherlands) have implemented or started to implement the standard.¹⁴⁰¹ They dedicated themselves on a voluntary basis to provide transparency of resource revenues in their countries from the extraction of raw materials with the aim of fighting corruption and to support good governance. Implementing countries are required to disclose information along the extractive industry value chain, from the point of extraction, following revenues through the government, to how they ultimately benefit the public. To this end, each EITI country provides an EITI-report. The report includes information on the licensing and contracting processes, fiscal and legal arrangements, revenue payments, locations of allocated revenues, and economic contributions in the country. An important role for the implementation of EITI in a country plays the national multi-stakeholder group (MSG), with contributions from companies, state organisations and civil society organisations (CSOs).¹⁴⁰² The MSG oversees the implementation of the EITI in its country and is a motor to turn the global minimum standard into a nationally owned process.¹⁴⁰³

EITI-reports that have been produced to date have greatly improved the quality of public information on revenues, expenditures and activities in the participating countries and worldwide.¹⁴⁰⁴ The initiative is explicitly mentioned in the United Nations Environment Assembly's 2019 resolution on mineral

¹⁴⁰⁰ See EITI-website: <https://eiti.org/>.

¹⁴⁰¹ See EITI-website: <https://eiti.org/countries>.

¹⁴⁰² Schüler et al. (2016): *Voluntary initiatives in the mining sector and their principles and criteria on environmental sustainability*, STRADE policy brief 07/2016, p. 8.

¹⁴⁰³ Moberg/Ponsford (2016): “The role of the extractive industries transparency initiative in delivering sustainable development in the extractive sector” in *Law in transition Journal* 2016, p. 78.

¹⁴⁰⁴ For example for state-owned companies (SOCs), Bauer (2018): *Governance challenges and the role of international reporting standards in improving performance*, commissioned by EITI, p. 47.

resource governance.¹⁴⁰⁵ While international reporting standards and transparency in the mining sector also play an important role in improving environmental and social performance in countries,¹⁴⁰⁶ information on the environmental impacts of mining operations in resource-rich countries is generally lacking. For EITI this is not surprising, as the standard does not explicitly require reporting on information about environmental policy and management. However, requirement 1.4 of EITI encourages MSGs to explore innovative approaches to extend EITI implementation and to increase the comprehensiveness of EITI. Against this background, some MSGs have decided to cover aspects of environmental policy, management and compliance in their reporting. Colombia, Germany, the Kyrgyz Republic, Niger, the Philippines and the Seychelles have stated work plans related to environmental issues.¹⁴⁰⁷ Additionally, some civil society organizations in Peru have been pushing to broaden the EITI agenda to include beneficial ownership disclosure and environmental information. Some extractive companies opposed to that.¹⁴⁰⁸ In June 2019, EITI has adopted a new version of the EITI Standard, which now also holds the new requirement to disclose expenditures for environmental issues by extractive companies. The aim is to help stakeholders to assess whether the industry is effectively investing in measures to reduce environmental impacts of their operations. Nevertheless, the disclosure of other environmental aspects remains voluntary. Hence it is recommended to the German government not only to continuously fund EITI, but to initiate a discussion on EITI-level on whether and how comprehensive environmental reporting for the sourcing and processing of raw mineral materials should be explicitly integrated into EITI and even become a minimum reporting duty.

There are several reasons for countries to implement EITI, for example to fight corruption, attract foreign direct investment or build trust between citizens.¹⁴⁰⁹ These reasons can be fostered by implementing environmental reporting in EITI, as transparency on environmental performance of countries contributes to the general objectives of EITI.¹⁴¹⁰ The arguments for and against introducing environmental reporting under EITI are manifold and should be carefully scrutinized:

- ▶ Transparency on environmental performance of mineral extraction in EITI countries can help reduce business risks for mining companies. As mining business is a long-term investment in general, an enabling investment climate and healthy environmental conditions are favourable to reduce business risks. Therefore, it can be assumed that integrating environmental reporting in EITI will improve the environmental situation in the same way EITI has contributed to increasing financial and fiscal transparency¹⁴¹¹ in the minerals and mining sectors of developing and emerging resource-rich countries.
- ▶ Increased transparency on environmental performance of the mining sector in EITI countries can help governments to implement environmental legislation in the country, especially on the sub-national level. Such reporting signals to the world that these countries are comfortable being monitored by their citizens as well as outsiders.
- ▶ Environmental reporting strengthens the role of CSO in resource rich countries to deal with breaches of environmental regulations and to make them public. Germany initiating such a

¹⁴⁰⁵ UNEA resolution „Mineral resource governance“, of 9 March 2019, UNEP/EA.4/L.23, para. 5 (b).

¹⁴⁰⁶ See the high costs of the tailings dam failure of the state-owned Ok Tedi Mining Ltd. (OTML) in Papua New Guinea, in: Bauer (2018): Governance challenges and the role of international reporting standards in improving performance, commissioned by EITI, p. 25.

¹⁴⁰⁷ See examples in EITI (2017): *Coverage of environmental information in EITI reporting – a review of how some EITI countries are covering environmental information in EITI reporting*, [http://extractives-baraza.com/assets/content/PDF/Publications:CSOEngagement/eiti_brief_environment\(1\).pdf](http://extractives-baraza.com/assets/content/PDF/Publications:CSOEngagement/eiti_brief_environment(1).pdf) (last accessed on 28 February 2019).

¹⁴⁰⁸ Natural Resource Governance Institute (2017): *Resource Governance Index – Peru – mining*. Carstens, Lozana and Eslava (2018): *EU cooperation strategy with resource-rich developing and emerging countries*, STRADE, p. 16.

¹⁴⁰⁹ Moberg and Ponsford (2016): “The role of the extractive industries transparency initiative in delivering sustainable development in the extractive sector” in *Law in transition Journal* 2016, 80.

¹⁴¹⁰ EITI (2017).

¹⁴¹¹ Schüller, Carstens and Farooki (2018): *Towards new paths of raw material cooperation - renewing EU partnerships*, STRADE final report.

process in EITI could encourage further countries to set an example and to become market players for environmental performance in the mining sector in the international arena.

However, integrating environmental reporting into EITI also entails risks: Especially in countries where the EITI faces capacity constraints there is the risk that this additional reporting obligation weakens the work on the existing EITI requirements.¹⁴¹² Moreover, environmental reporting should not duplicate existing national systems for monitoring environmental aspects.

Leverage on: Integrating environmental reporting into EITI would expand existing efforts of participating countries to provide for transparency in extractive industries.

5.2.3 ISO Standard for procurement of sustainable products containing mineral raw materials

Mid-term to long-term: At ISO level, the German Federal Ministry for Environment should initiate a standardisation process regarding procurement rules for products containing responsibly sourced mineral raw materials. In the longer term the development of sector specific minimum standards and the information and transparency through consistent and widely accepted principles for environmental requirements in the mining and processing of mineral resources should be stimulated.

Description: The OECD Due Diligence Guidance and the EU conflict minerals regulation have launched many companies' efforts to develop responsible supply chains that focus on human rights. Despite various general attempts to guide supply chains towards more environmentally friendly conduct (e.g. by the OECD Due Diligence Guidance for Responsible Business Conduct), there is so far no environmental equivalent to the "OECD Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas", e.g. a "Guidance on Environmental Issues of Mining in Responsible Mineral Supply Chains". On the one hand, the challenges in implementing it in the areas already within the scope of the OECD Due Diligence Guidance on Minerals from Conflict Areas are still large and partly unresolved. On the other hand, the environmental problem is even more complex than the issue of conflict minerals and serious human rights violations, so that there are no simple criteria for what is "environmentally friendly". To date, the evaluation of the environmental status of a mining operation largely depends on gauging emissions and by comparing to best-practices in the industry and is complicated by the fact that each type of commodity-mining has quite specific environmental impacts.

In view of the globalised supply chains, the topic should be addressed on an international level. This gap could be narrowly closed with an ISO (International Organization for Standardization) standardisation process for responsible supply chains. A clear advantage of an international standardisation process, being a private standardisation process of industry, is that those addressed by the standard steer the process. Moreover, policy-makers and civil society organisations can give input to the process and participate in its development. However, CSO should be supported financially to participate in the respective ISO meetings and to develop profound input.

As stated above, the development of environmental requirements for the mining and processing of mineral resources is very complex. After all, responsible procurement with regard to environmentally compatible mining is hardly possible since there are hardly any certified products and no globally accepted standards. Despite this fact, the process for a procurement standard should be started soon and be geared towards long-term development. It is therefore recommended to start with a standard containing simple procurement principles. One step in this direction is currently being done by the ISO project committee 308 (ISO/PC 308)¹⁴¹³ developing a standard ISO/DIS 22095 on "Chain of Custody - General terminology and models". While this process does not aim at developing criteria for sound raw material production itself, it aims at developing criteria, definitions and consistent approaches for

¹⁴¹² EITI (2017).

¹⁴¹³ See ISO website: <https://www.iso.org/committee/6266669.html>

product and material related chain of custody.¹⁴¹⁴ A draft version of the standard will most likely be published in the second half of 2019. Once finalized, the standard can be used to certify product and raw material related sustainability claims (that are based on other standards/certifications) along supply chains. As the standard will be open in terms of product and material scope, it will be possible to use it to verify that certain raw materials in products comply with upstream sustainability claims (e.g. environmental criteria in mining and processing). As the standard ISO/DIS 22095 will only address the chain of custody, it will only be applicable in combination with other standards or criteria on sound raw material production. For developing detailed criteria on sound raw material production, it does at the moment not seem sensible to develop one or more specific ISO Standards.

Later, with increasing availability of certifications and standards, the procurement standard should be further developed regarding procurement rules for products containing responsibly sourced mineral raw materials. In the longer term the development of sector specific minimum standards and the information and transparency through consistent and widely accepted principles for environmental requirements in the mining and processing of mineral resources should be stimulated.

Conceivable are various standardisation deliverables that could be targeted for developing a sustainable procurement standard, like International Standards, Technical Specifications or International Workshop Agreements:

- ▶ An **International Standard** (ISO standard) provides rules, guidelines or characteristics for activities or for their results, aimed at achieving the optimum degree of order in a given context. Apart from product standards, test methods and codes of practice, there are requirement and guideline standards and management systems standards, too, e.g. environmental management (ISO 14000), life cycle assessment (ISO 14040) or social responsibility (ISO 26000).
- ▶ **Technical Specifications** (ISO/TS) address work still under technical development: A TS is published for immediate use, but it also provides a means to obtain feedback. The aim is that it will eventually be transformed and republished as an International Standard.
- ▶ An **International Workshop Agreement** (IWA) is a document developed outside the normal ISO committee system to enable market players to negotiate in an open environment. International Workshop Agreements are typically administratively supported by a member body. The published agreement includes an indication of the participating organizations involved in its development. In contrast to a Standard or TS, which have an unlimited lifespan, an International Workshop Agreement has a maximum lifespan of six years, after which it can be either transformed into another ISO deliverable or is automatically withdrawn.

An International Workshop Agreement, for example, appears to be a much more advisable format. The IWA process is pragmatic, tied to tight timelines, its results are publicized, and the reputation of the ISO-format is good. Before initiating an IWA for sustainable procurement of products containing raw materials, experience should be gained with a recent IWA “Guidance Principles for the Sustainable Management of Secondary Metals - ISO IWA 19 Working Draft”.

The content of the format as well as the practical experience can then also provide impetus for a rule setting in sustainable public procurement.

Leverage on: The joint development of global principles and guidelines for sustainable procurement of products containing mineral raw materials would address multi-stakeholders (governments, companies, civil society organisations) across the globe and contribute to international rules for (public) procurement.

¹⁴¹⁴ Compare the guidance for organizations to implement sustainable procurement in their supply chain (ISO 20400:2017).

5.3 Strengthen bilateral and international cooperation

5.3.1 Use instruments for foreign trade and investment promotion

The German government could rethink the objectives of the existing raw material partnerships when revising its raw materials strategy. A stronger focus could be placed on the concept of responsible mining practice as a strength of the German suppliers of mining-related technologies and services. The unique expertise that German small and medium-sized companies (SMEs) have built in the area of responsible mining practices, from low-impact exploration to waste management and remediation, should be used to position them much stronger in resource-rich developed as well as in emerging and developing countries.

Description: Germany's raw materials policy has already triggered the establishment of several instruments to facilitate raw material supply security for the German industry and to promote German investment abroad.

One of the instruments to foster cooperation with emerging countries rich in raw materials are the raw material partnerships (*"Rohstoffpartnerschaften"*). The raw material partnerships, currently in place with Kazakhstan, Mongolia and Peru, were launched with a focus on trade facilitation, mainly to support German commodity security. This ambitious goal has only been achieved to a very limited extent because of their weak prescriptiveness and the original focus on German investment into new projects for raw material extraction. This has proven to be a much more complex undertaking due to a lack of companies with the available budget, profile and ambition to invest in primary resource extraction.

Another instrument developed as part of the 2010 Raw Materials Strategy (*"Rohstoffstrategie"*¹⁴¹⁵) currently under review are the Competence Centres for Mining and Mineral Resources (*"Kompetenzzentren für Bergbau und Rohstoffe"*). Their focus is both on supporting resource security and on promoting and supporting the suppliers of German machines, technologies, and services in the mining sector. Currently there are competence centres in 6 countries (Australia, Brazil, Canada, Chile, South(ern) Africa and Peru). These are part of the national chambers of foreign trade and form a network with each other.

Instead of focusing on security of supply, it seems appropriate to rethink the objectives of the existing raw material partnerships in order to revive them. Their mandate should be aligned more closely with the potential of the German raw materials industry, i.e. the suppliers of mining technologies and services. This is particularly relevant as the suppliers must become increasingly internationalized based on the ongoing structural changes in the German mining sector – especially with the phasing out of coal mining.

While resistance against mining projects is increasing worldwide and companies see themselves forced to invest in their social licenses to operate, there is a potential for the German suppliers of mining technologies and services. The German government is in the process of updating its 2010 Raw Materials Strategy, a draft should be available by summer 2019.¹⁴¹⁶ It could use this opportunity to emphasize the concept of responsible mining practice as a German peculiarity, particularly with regard to environmental aspects. In concrete terms, topics such as environmental technologies, renewable energies, energy efficiency or water management could be placed at the centre of Germany's instruments for enhancing foreign trade and investment promotion in the mining sector. In addition, the subject of mine closure – from mining waste management to re-cultivation – is increasingly gaining international

¹⁴¹⁵ Bundesministerium für Wirtschaft und Technologie (2010): *Rohstoffstrategie der Bundesregierung*, <http://www.rohstoffwissen.org/fileadmin/downloads/160720.rohstoffstrategie-der-bundesregierung.pdf>.

¹⁴¹⁶ Deutscher Bundestag, Drucksache 19/4946, Antwort der Bundesregierung vom 28.11.2018.

importance within the debate about legacy mines and thus holds great potential for the experienced German suppliers of technology and services.

The lack of know-how and training opportunities in non-industrialized mining countries also offers opportunities for German companies and training institutions. The promotion of knowledge exchange and the qualification of employees in the private and public sector are important fields of action for strengthening responsible mining practice directly in the mining countries with the help of German expertise. The support to Mongolia in the training and qualification of professionals and SMEs in the mining sector is a positive example for such an integrated cooperation approach.

With its broader understanding of raw materials policy, the German Environment Agency should actively contribute to the necessary expansion of the mandate of the Competence Centres for Mining and Mineral Resources and the redesign of the raw material partnerships.

Leverage on: Aligning the raw material partnerships and the Competence Centres for Mining and Mineral Resources with the concept of responsible mining practice will impact the situation with concrete mining sites in resource rich countries as well as the role of Germany's raw materials sector. Moreover, the knowledge exchange and the qualification of employees in the private and public sector in resource rich countries will be improved.

Need for additional research: To effectively use raw material partnerships, more information are necessary.

- ▶ First, a need assessments for training and capacity building projects in applied geosciences and responsible mining in non-industrialised mining countries should be carried out.
- ▶ Second, a survey should be conducted among the Competence Centres for Mining and Mineral Resources to get feedback on the communication of the German raw materials industry as supplier of goods and services for responsible mining worldwide.

5.3.2 Support innovative supply chain initiatives

The German government could further support voluntary supply chain initiatives for responsible mining. This can be done by assisting SMEs to find their way through the broad spectrum of supply chain standards and by funding innovative public-private partnerships for connecting players along the supply chain or shortening it.

Description: German mining companies are only of minor importance on a global scale. Therefore, Germany has very limited possibilities to directly influence the mining conditions in the countries of origin. However, German industrial companies and consumers are important processors and buyers of mineral raw materials. They are increasingly exercising their influence via ecological and social standards for primary products and suppliers - also due to changing legal requirements (e.g. the EU conflict minerals regulation) and greater consumer awareness.

There is already a range of supply chain standards for mineral raw materials. These standards and certifications cover different commodities and stages along the supply chain, focus on different producers (LSM vs. ASM), key concerns, and often do not recognise each other. As an example, many of the mineral supply chain standards covering the ASM sector focus on conflict-related aspects and do not even cover environmental topics. It is therefore difficult for companies and consumers to find their way through the broad spectrum of standards. Consequently, there is a need for advice especially for SMEs that want to make their supply chain more "environmentally friendly" within the scope of their limited possibilities.

Due to the large number of existing supply chain standards, it is questionable whether Germany should promote the development of further standards. Instead, public funding for supply chain standards should be coordinated at least at EU level and dependent on the consideration of lessons learned, e.g. that the initial scenario is recorded adequately in order to allow for impact evaluations or, in the

case of certifications, that the cost burden for certification and auditing is not only with the producers in order to avoid creating additional high barriers to legal market entry for the ASM sector.

Instead of directly promoting supply chain standards, the public sector can also promote innovative initiatives for the responsible extraction of individual raw materials or products through co-financing or public-private partnerships (PPPs), e.g. for connecting players along the supply chain or shortening it. In particular, raw materials relevant for the German industry that pose a particular risk to the environment and are produced in small-scale mining appear to be worthy of support, e.g. manganese or graphite.

DeveloPPP is already an instrument of the Federal Ministry for Economic Cooperation and Development (BMZ) by which pilot projects for raising supply chain standards in developing countries are subsidized. Although DeveloPPP is cross-sectoral, private sector projects to improve the environmental situation in the production of mineral raw materials in developing countries are eligible for co-financing. A new instrument that focuses solely on improving responsible mining is the European Partnership for Responsible Minerals (EPRM). EPRM aims to improve the working and living conditions of miners in conflict-affected and high-risk areas (CAHRAs) involved in the mining of 3TG minerals. It does this by means of co-financing projects involving at least one partner directly involved in the mineral supply chain. So far, EPRM has a primary focus on social and economic aspects and no explicit mandate to improve the environmental situation in mining. Germany is a member of EPRM since 2018 and participates in its financing. Germany should continue to play an active role in this regard and advocate the inclusion of environmental aspects more prominently in EPRM's further development.

Leverage on: Targeted support of the German government would benefit private companies that stand up for global responsible mining.

Need for additional research: Support of voluntary supply chain initiatives would benefit from the development of tools and more information on certification:

- ▶ First, a toolkit for SMEs that want to make their supply chain more environmentally friendly should be developed.
- ▶ Second, a study to gather information on costs for certification and to develop mechanisms for fair sharing of such costs along the supply chain should be carried out.

5.3.3 Strengthen development cooperation in the mining sector

The German government could expand its support for emerging and developing countries with their national reforms to improve resource governance. There are different approaches for aligning environmental aspects in the raw materials sector with other priorities of German development cooperation, such as:

- Advocating for the environmental peer reviews to cover mineral extraction.
- Supporting the implementation process of the Minamata Convention.
- Giving the German Environment Agency a more prominent role in discussions about development cooperation on raw materials.

Description: In addition to legal regulations and voluntary instruments, international cooperation can make an active contribution to raising environmental standards directly on site. If the measures are adapted to the local and national context, technical cooperation can build long-term capacity to set and adequately control the framework for responsible mining.

Credible information and close involvement of the partners should be the basis of any cooperation action. Participatory instruments for analysing the influence of mining on environmental protection and nature conservation such as the Environmental Peer Review procedure by OECD/UNECE are therefore

welcomed. Germany should advocate that these reviews explicitly address resource extraction in mining countries.

Environmental pollution from mining particularly occurs where mining is uncontrolled. Since mining takes often place in remote areas and its supervision has to be decentralized, measures to strengthen local governance are of great importance. These include capacity and competence building in the fields of environmental impact assessment, licencing procedures, monitoring and sanctions for non-compliance. Support for civil society, parliamentary oversight and policy dialogues are also important instruments for building good governance structures.

A sector that by definition often evades state supervision is artisanal and small-scale mining (ASM). ASM is of high relevance for both social and environmental issues: On the one hand, it sustains the livelihoods of an estimated 150 million people worldwide. On the other hand, ASM leads to habitat and ecosystem degradation, deforestation, soil loss and pollution of water and air. Based on its relevance and its widespread informality, there is a great need for support for the sector - optimally embedded in integrated rural development programmes. The Minamata Convention on mercury has a special focus on small-scale gold mining gold - one of the main drivers of environmental damage caused by mercury. The Convention has been ratified by many developing countries with relevant gold mining sectors and entered into force in 2017 (for more information see Section 2.1.2.3). It thus creates a historic momentum for the long-term formalisation of small gold mining. Germany should actively support the further progress of the Convention and its implementation.

Germany's development cooperation has been active in the field of responsible mining for many years – notably through cooperation projects implemented by BGR and GIZ. It is recommended to continue the bilateral programmes with proper financial resources and to regularly examine whether new challenges in the raw materials sector or new legal regulations which should be accompanied by cooperation instruments require new foci and/or an increased budget. On the one hand, the BMU can examine whether environmental and climate initiatives such as IKI¹⁴¹⁷ or the Advisory Assistance Programme¹⁴¹⁸ could be more open to projects for responsible mining with a direct relevance to environmental protection and biodiversity. On the other hand, the relevance of raw materials policy goes beyond the boundaries of environmental policy. Because mining is a relevant economic sector in many developing countries for promoting employment and generating public revenues it has the opportunity and potential to positively contribute to all 17 SDGs.¹⁴¹⁹ Projects for environmentally sound supply of raw materials therefore offer an opportunity to actively shape existing conflicts of use and to harness the potential of mining in line with environmental and development policy objectives.

UBA can contribute to align environmental aspects in the raw materials sector with other priorities of German development cooperation. There are concrete opportunities, for example, in integrating the results of UBA work such as the OekoRess method for the effective assessment of environmental hazards¹⁴²⁰ into the selection and design of new development cooperation projects in the mining sector, e.g. for strengthening mining supervision. UBA, with its understanding of the ecological hazards involved in the extraction and processing of raw materials, should therefore play a more important role in the discussion of German and European development cooperation.

¹⁴¹⁷ For more information about the International Climate Initiative see https://www.international-climate-initiative.com/en/?iki_lang=en.

¹⁴¹⁸ For more information about the Advisory Assistance Programme see <https://www.umweltbundesamt.de/en/topics/sustainability-strategies-international/cooperation-eeca-centraleastern-european-states/federal-environment-ministrys-advisory-assistance>.

¹⁴¹⁹ UNDP (2016): *Mapping Mining to the Sustainable Development Goals: An Atlas*, available at <http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/mapping-mining-to-the-sdgs--an-atlas.html>.

¹⁴²⁰ Dehoust et al. (2017): *Discussion of the environmental limits of primary raw material extraction and development of a method for assessing the environmental availability of raw materials to further develop the criticality concept*, UBA Texte 87/2017, available at https://www.ifeu.de/wp-content/uploads/UBA2017_Texte_87-2017_oekoress_summary_2.pdf.

Leverage on: A strategic orientation of development cooperation towards environmentally-sound mineral extraction could benefit local governments, the civil society as well as companies in developing countries.

Need for additional research: Support activities for the mining sector would benefit from addition information:

- ▶ Study on new areas for ASGM support as accompanying measures to the EU Conflict Minerals Regulation and implementation of the Minamata Convention on mercury.
- ▶ Application of the site-related OekoRess assessment method as an advisory tool for licencing procedures and mining supervision.

5.3.4 Increasing international engagement for legacy mine site rehabilitation in developing countries

Short term: It is recommended that Germany and/or the EU promote an international platform for supporting developing countries in the rehabilitation of legacy mines.

Mid and long-term: A platform can make a big contribution to create an inventory of legacy to mines in developing countries, to prioritize sites in terms of urgency and coordinate and provide administrative, technical and financial support for the rehabilitation.

Description: The discussion about good international raw material governance and corresponding frameworks and sector programmes mainly focuses on active mines, including concepts for the post-mining phase. Less international attention is currently being paid to the issue of the many legacy mine sites in developing countries which are not being remediated due to a lack of financing sources and/or lack of know-how or inadequate inventories. Exceptions are newly emerging concepts that promise interesting re-use of the sites, e.g. the recovery of secondary materials from old tailings, which today, in contrast to previous years, might become economical in some cases due to the availability of improved technologies or increased raw material prices. Up to now, there has only been selective knowledge of legacy mine sites in developing countries whose ores have been used in Germany/Europe. The legacy mine site mapping that has taken place in developing and emerging countries (e.g. in South Africa, Chile, Peru and in sub-Saharan countries) supports the assumption that the environmental challenges from legacy mine sites in developing countries are massive.

In 2008 a roundtable on restoration of legacy sites was held with key global actors such as ICMM, IUCN, governments, private sector, and representatives of NGOs¹⁴²¹. One key recommendation was the creation of a global inventory and a risk assessment framework for prioritizing legacy sites. The roundtable further expressed the need for a „home“ for international joint action and knowledge sharing and sees financial restrictions as one key obstacle for enforced rehabilitation efforts. The 2008 study for the IGF in 2008 also emphasizes that, in addition to national commitment, international support for developing countries is also necessary to cope with the financial burden.

Currently - 10 years after the Roundtable - there are, as before, scattered rehabilitation projects which are carried out, supported or financed by various national and international institutions. German actors here include GIZ and BGR; on the international level there are projects by GEF, UNEP, UNIDO, World Bank Group and others. Despite individual projects on the topic, there is still no broad-based international thematic programme that bundles the measures, develops an inventory and presents an action plan with priority areas. Many of the above-mentioned institutions focus on extractive industries with a focus on current mining projects (including good post mining management to avoid future contaminated sites) and on chemicals or waste or similar overarching topics, under which mine site

¹⁴²¹ IUCN-ICMM Roundtable on Restoration of Legacy Sites, roundtable report, 2-8 March 2008, Toronto, http://msdata.iucn.org/downloads/iucn_icmm_post_mining_alliance_2008_legacy_roundtable_report.pdf.

rehabilitation is addressed among others. In summary, the topic is addressed in many individual activities, but a superordinate platform that gives an overview, coordinates and develops prioritizations is missing.

A similar conclusion is made by UNEP in the field of tailing dam management. There are similar gaps in the knowledge of the location of the numerous tailing dams for ore processing and the corresponding environmental threats from potential dam failures. Since they pose a major environment risk, a global inventory is proposed by UNEP. It would be conceivable to create synergies and jointly address inventories for tailing dams of operating mines, tailing dams in the post mining phase and legacy mine sites.

In addition to the focus on reducing environmental damage, such an inventory should also identify the potentials and benefits of remediation, taking into account various options for reuse. The recovery of valuable materials (e.g. secondary metals from old mine sites), reuse for tourism, forestry or even agricultural purposes can be considered. Other important points are capacity building and know-how transfer with the aim of building up administrative and technical capacities in the countries concerned.

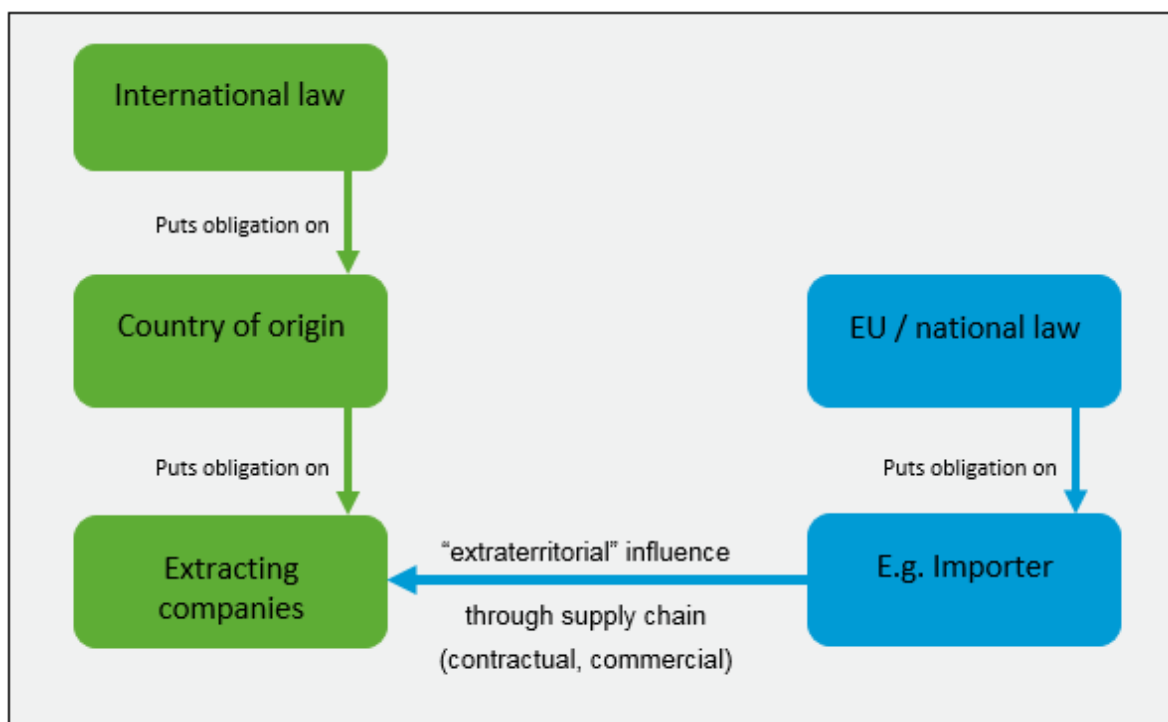
Considerations are necessary regarding which existing or new institution could host the proposed platform. UNEP might be an adequate global institution that could advance the issue, eventually in co-operation with the GEF, which in principle finances selected rehabilitation projects under the 'chemicals and waste' topic.

Leverage on: An international platform for legacy mine would support states and implementation bodies, particularly in developing countries, in the rehabilitation of legacy sites with high hazardous risk.

5.4 Further explore opportunities for extraterritorial impact and for combining legal instruments with non-binding standards

Legal acts with extraterritorial impacts provide states or the European Union with an instrument to work towards an environmentally sound mineral extract in the state of origin via obligations for importers that are passed on in the supply chain. They enable states or the EU to act in the absence of binding or non-binding international standards.

Figure 31: Effect of mechanisms of international law v. legal acts with extraterritorial effects



Source: Own figure, Ecologic Institute

In comparison with international law, such legal instruments do not address states, but enterprises that pass on obligations along their supply chain.

5.4.1 Explore and assess options of extraterritorial legislation at national or European level, notably supply-chain due-diligence

Germany should further explore and assess further possibilities of addressing environmental issues of mining activities through national or EU rules with extraterritorial effect, potentially combined with non-binding standards. This is a mid- to long-term task, because it should take into account the implementation and effectiveness of the relatively recent models for this regulatory approach. Based on these models, key questions and options to be addressed include:

- Whether, in which regulatory constellations and how to use due diligence obligations as the core regulatory approach
- Whether to establish sector-specific or general obligations;
- Whether and how the legislation integrates or links to non-binding standards (see separate recommendation below);
- Complementary options to strengthen implementation and enforcement in particular of due diligence obligations (see separate recommendation below);
- How to avoid unintended side effects on mineral producing regions

Description: Insofar as legal and political opportunities in international law for setting environmental or social mining standards are limited, an alternative -or complementary- binding approach is to use domestic or EU legislation. Instead of regulating the mining activity as such, Germany could consider obligations on actors further down the supply chain, e.g. on importers. The idea is that the commercial power of the companies so obliged influences the supply chain from the demand side and eventually improves the environmental and social standards of mining activities abroad. In the case of the EU timber regulation (see Section 2.3.1), at least in theory this also creates an incentive for the state of origin to improve its standards in order to establish FLEGT licenses, because they enjoy the presumption of legal harvest. The EU timber regulation thus provides an example for additional leverage on the producer countries: Bilateral agreements aim at reforms in the respective timber-producing partner state – the EU timber regulation refers to the legal regime of the state of origin as the standard against which to evaluate the legality of imported timber. Following this example, national or EU rules with extraterritorial effect could be complemented by bilateral agreements that aim to improve regulation and implementation in the countries of origin. Such bilateral agreements could require certain standards in the state of origin that extractors have to comply with. In return, trading minerals from such states would be privileged, for instance by deeming such minerals to be aligned with national or EU supply chain due diligence or to be extracted legally. This economic advantage for exporters is an incentive for states of origins to conclude bilateral agreements and to improve their national laws and their enforcement. The EU conflict minerals regulation (see Section 2.3.6) has a similar mechanism, which however does not apply to countries but instead to private actors, namely smelters and refiners. The European Commission will keep a list of so called global responsible smelters and refiners that are deemed to fulfil the requirements of EU conflict minerals regulation. Buying from listed smelters and refiners will reduce the efforts of downstream companies to conduct related supply chain due diligence.

There are **regulatory examples** for the approach using legislation with extraterritorial effect, notably the EU CSR directive (see Section 2.3.5), the EU conflict minerals regulation, the EU timber regulation and the French law on the duty of vigilance. Although none of them set or refer to specific standards for mineral extraction, their approach could be a useful starting point. However, since they are quite

recent and some do not even apply yet, it is too early to recommend one approach over the other. Germany should assess their differences and implementation, in order to consider whether and how these approaches could be used and adapted more specifically for addressing environmental issues of mining activities.

The assessment should take into account key differences in the four regulatory examples and include the following **key considerations**:

- ▶ What is the legislation's conceptual approach for eventually influencing the mining activities? All four examples use the **concept of supply-chain due diligence**, but with different stringency: The CSR directive merely requires companies to *report* on its due diligence processes, but not to *have* them. Others require companies not only to have and implement due diligence processes, but attach import restrictions or enforcement mechanisms such as liability and court proceedings. In addition, what exactly should the obligation to exercise due diligence contain? A due diligence obligation is not an end in itself. It has to be linked to a purpose, such as protecting human rights or the environment. To what extent should legislation indicate which diligence is "due", i.e. what a company has to do in order to fulfil the obligation to exercise due diligence? One option is for the law to refer to non-binding standards (see below, Section 5.4.2). An integration of country specific legality-criteria with respect to ecological, social and economic effects of mining may also be seen as an advantage.
- ▶ In parallel, Germany should consider **which material environmental and social standards** it would like to see implemented in extraction. This issue is distinct from whether or not it should support the due diligence approach and the regulatory technique of linking binding obligations to otherwise non-binding standards which is addressed separately (see below, Section 5.4.2).
- ▶ Whether to pursue rules **specifically for the mining industry, or supplement general rules**, e.g. by adding mining-specific standards to general due diligence obligations? Conceptually, options include due diligence obligations that refer to specific environmental and social standards or, alternatively, to legislate a comprehensive law on due diligence obligations addressing environmental, as well as social and human rights related aspects.
- ▶ **New legislation or amend existing legislation?** Generally, the legislative process for amending existing legislation is the same as for adopting new legislation. It needs to be assessed whether the chances for obtaining political agreement could be higher for amending existing legislation. For instance, the EU conflict minerals regulation already put in place a mechanism for addressing the mining industry specifically, which could be used to amend.
- ▶ **Legislation at EU or domestic level?** Whether to amend existing legislation or to adopt new legislation at the European or at the national level. This assessment should take into account current experiences with French law on the duty of vigilance as opposed to European legislation like the EU timber regulation and the EU conflict minerals regulation as well as considerations with respect to the effectiveness and the feasibility of appropriate legislation.
- ▶ How do supply chain due diligence obligations need to be designed to **be consistent with WTO law**? The principles of market access and non-discrimination are the cornerstones of international trade law. WTO members are not allowed to discriminate between products originating in the territories of different members and may also not treat domestic products "more favourable" than "like" imported products (see Section 2.1.4.1). However, there are exceptions for certain measures to protect the environment or relating to the conservation of exhaustible natural resources.
- ▶ It should also be considered that supply chain due diligence may lead to **unintended side-effects** such as de-facto bans of certain mining regions that cannot prove compliance with defined criteria. While the intention may be to target worst performers, company management systems may not be always precise enough in this regard. Therefore, systems need to actively respond to this problem and should ideally also foresee mechanisms supporting worst performers on their path towards improvement.

Options: The different elements and approaches of the four regulatory examples could be combined in various ways and of course also adapted as appropriate. One of the legally more stringent options would be to build on the example of the EU conflict minerals regulation and the EU timber regulation. For instance, environmental standards could be included in the EU's conflict minerals regulation, which appears to be particularly appropriate in cases where environmental impacts have severe negative effects on human health and living conditions and could therefore be regarded as violations of human rights. Alternatively, a comprehensive law on due diligence obligations, comparable to the French law on the duty of vigilance, addressing the whole value chain and all economic sectors and incorporating environmental as well as social standards would be another feasible option for a legally binding instrument. While a sector specific law would allow for legislation focussed on the mineral sector, such as establishing obligatory and enforceable rules on public reporting by national or European importers, a comprehensive law on due diligence obligations may be more flexible and efficient. A general rule in the law could be elaborated in more detail over time by the courts and at the same time by integrating sector specific, non-binding standards.

Leverage on: The concept of using obligations on actors further down the supply chain, e.g. on importers, provides indirect leverage on the mining activities in the countries of origin. The idea is that the companies obliged under EU or German jurisdiction use their commercial power to influence the supply chain from the demand side, which eventually improves the environmental and social standards of mining activities abroad. It should be kept in mind that the different approaches described, such as supply chain due diligence or legality requirements, are not an end by itself but should be designed to serve this purpose.

Need for additional research: Additional research should cover the following questions to ensure the decision to establish due diligence obligations are made on a sound basis:

- ▶ Assessment of the effects of due diligence obligations in comparison with other instruments.
- ▶ Development of options for the design of due diligence obligations in regard to their coverage (environmental aspects, human rights, etc.) and content to ensure their effectiveness.
- ▶ Assess the feasibility of integrating environmental aspects into the EU Conflict Minerals Regulation and broadening the regulation's scope to other geographical areas.
- ▶ Gather information to assess whether procedural obligations are sufficient to ensure legal certainty for enterprises.

5.4.2 Explore and assess options for the legislation to integrate or link to non-binding standards

In order to cope with the complexity of the technical specifics and environmental effects of mining and to improve the effectiveness of new legislation, Germany should assess the regulatory option of integrating non-binding standards into extraterritorial legislation on due diligence obligations.

Description: The analysis of the regulatory mechanisms of the EU conflict minerals regulation (see Section 2.3.6) and the EU timber regulation (see Section 2.3.1) points at possibilities to address environmental aspects of mining activities in legislation which incorporates binding and non-binding standards. A comprehensive or a sector-specific national or EU law on abiotic resources could for instance establish obligatory and enforceable rules on public reporting by specified national or European operators – such as importers exceeding a certain size – on their supply chain due diligence policies and practices. Respective mandatory due diligence systems could be required to be established by the operators themselves or by recognized third parties as monitoring organizations. Certification schemes may be integrated in such a framework of risk assessment and risk mitigation procedures - the key elements of due diligence. A “process-based-approach” on mandatory self-regulation has advantages based on its “openness”: diversified due diligence and certification schemes can take into account the

ecological specifics of business segments and producer countries as well as dynamic developments of the economic or regional context of mining.

- ▶ None of the four examples assessed by the study set or refer to specific standards for mineral extraction. There is a multitude of non-binding standards relating to the mining industry. New binding rules could assess the incorporation of the respective substance of these standards, or refer to one or several of them in a more or less exclusive manner. It could be useful to be able to refer to an overarching, globally accepted standard (see Section 5.2.1 on a global non-binding standard).
- ▶ There are different degrees of how detailed stipulations integrating external non-binding standards may be. Some of the regulatory examples simply refer to a list of external standards without specifying how this to be implemented or monitored and enforced by authorities. Others require the authorities to maintain some form of positive list or certification. Others, such as the French law, apparently do not refer to external standards and leave it to the authorities and courts.
- ▶ The purpose and added-value of referring to a non-binding standard should be clear. One consideration is that a non-binding standard could help maintaining a level playing field for the companies obliged by the legislation. It might also be simpler for the legislator to use the expertise that went into existing standards. On the other hand, referring to non-binding standards should not become a fig leaf for the legislator to pass on its own responsibility.
- ▶ One major obstacle to the integration of certification schemes as part of mandatory self-regulation is that – in contrast to the timber sector, for example – there are currently no effective certification systems available for the environmentally friendly exploitation of abiotic resources ASI and IRMA have potential but are in its pilot phase or under development.¹⁴²² The development of certification schemes or concrete criteria for a due diligence system would therefore have to go hand in hand with endeavours to develop functional criteria for responsible sourcing with regard to environmental aspects. This should also consider whether and to what extent general or supply-chain specific ISO standards (see Section 5.2.3) could serve as a certified standard.

Leverage on: The regulatory options to combine a legal instrument with non-binding standards should be further assessed with respect to concrete options. The potential of such a “mixed” instrument depend on the availability and quality of non-binding-standards, including whether the adoption of such qualified standards is conceivable. The leverage of a mixed instrument therefore is related to the recommendations discussed in Section 5.2. Depending on the specific design, combining legal instruments with non-binding standards will have a cross-cutting impact on various stakeholders confronted with the mining issue. It can also have an impact on the mining policies in producer countries and respectively the rules for companies in the importing countries. Certification bodies will increase their efforts to develop certification schemes to demonstrate compliance with due diligence.

Need for additional research: Additional research should cover the following question to gather more information about the effects of binding and non-binding instruments:

- ▶ Are sectors conceivable where process-based instruments would not be a desirable instrument? For which sectors or risks are clear standards and substantial regulation, e.g. prohibitions and restrictions indispensable?

5.4.3 Assess complementary options to optimize the implementation and enforcement of due diligence obligations

A proposal for legislation on legally binding supply chain due diligence obligations should explore options to improve the efficiency of their implementation and enforcement. One option is establishing civil liability of downstream actors and corresponding rules for choice of forum and legal standing in Germany e.g. for plaintiffs from countries in which the mining takes place.

¹⁴²² See chapter 2.2.1.5 and 2.2.2.3.

Description: The analysis of the EU timber regulation (see Section 2.3.1) substantiates that the implementation, control and enforcement of due diligence obligations seems to be one of the main challenges of approaches to mandatory self-regulation: Analysis shows that state agencies often do not sufficiently control compliance and enforce violations of the obligations. The extraterritoriality of the relevant practices and possible violations renders it difficult for agencies to control compliance with certain obligations and to illuminate the circumstances of infringements. It therefore should be considered to supplement the mechanisms of public control and enforcement by national authorities by establishing civil liability of *downstream* actors for violations of due diligence obligations. Current civil proceedings before German¹⁴²³ and other national courts¹⁴²⁴ with respect to extraterritorial or cross-border human rights violations are examples for the general possibility as well as the legal and political functions of civil liability. However, according to the current state of the law, parent companies and importers frequently cannot be held responsible for rights violations by subsidiaries or suppliers in other countries: European collision law may impede effective access to justice for victims from producer countries. For example, in typical constellations concerning the liability in tort, the law of the producer country can apply, which may be less beneficial for the victims than European tort law.¹⁴²⁵ Major impediments to civil liability of down-stream actors and parent companies can also be found in material principles of contract law and corporate law. E.g. a parent company is, in general, not liable for the conduct of the subsidiaries in which it invests according to the principle of the separation of the corporate identity.¹⁴²⁶

Enabling victims to obtain compensation for harm resulting from non-compliance with due diligence obligations could be considered to be a major improvement of this legal situation. Extraterritorial rights of action could compensate for the limited control by state authorities, as victims of the consequences of infringements could decentrally initiate the enforcement and e.g. provide evidence from the location of the violation. The liability risks can provide a strong incentive for compliance for economic actors.

As the example of the French law on the duty of vigilance shows, rules on the civil liability of *downstream* actors may be integrated in a general law on due diligence obligations (see Section 2.3.2). The interplay between legally defined due diligence obligations, mandatory reporting and a rule on civil liability also has a procedural aspect: The required content of the mandatory vigilance plan can make it easier for victims to fulfil the burden of proof in the case of rights violations.

The effectiveness of legislation integrating rules on the civil liability for violations of due diligence obligations depends on various and complex substantial (e.g. thresholds for addressees, definition of due diligence obligations), procedural (e.g. rules on jurisdiction) and practical (e.g. barriers to the access to law for plaintiffs from countries of origin) preconditions. Approaches to strengthen governance for mining activities should further assess preconditions and regulatory options to establish extraterritorial rules on civil liability of downstream actors.¹⁴²⁷

Leverage on: Leverage could be increased by adding enforcement mechanisms such as liability, and corresponding procedural rules regarding choice of forum and legal standing e.g. for plaintiffs from countries in which the mining takes place. Non-Governmental organisations would be enabled to increase their effort to point at violations of due diligence. Depending on the concrete design of a rule, risks of liability can provide a powerful compliance incentive for economic actors.

¹⁴²³ Cf. Urt. V. 10.01.2019, Az. 7 O 95/15 (LG Dortmund Urt. v. 10.1.2019 – 7 O 95/15, BeckRS 2019, 388); Saúl Lliuya ./ RWE AG (Az. 5 U 15/17 OLG Hamm).

¹⁴²⁴ Cf. Lungowe v Vedanta Resources plc [2017] EWCA Civ 1528, <http://www.bailii.org/ew/cases/EWCA/Civ/2017/1528.html>.

¹⁴²⁵ Cf. Junker 2018, MüKo Bd. 12 (2018), § 7 Rom II VO, Rn. 21 f.

¹⁴²⁶ Cf. van Dam, JETL 3/2011, 247.

¹⁴²⁷ Cf. the research project “international liability of corporations for environmental damages” (Internationale Haftung von Unternehmen für Umweltschäden UFOPLAN-Projekt FKZ 3718 17 100 0), started in September 2018.

Need for additional research: Additional research should cover the following question to learn more about effective implementation and enforcement mechanisms that can be combined with due diligence obligations:

- ▶ Is civil liability an appropriate instrument to enforce due diligence obligations? To what extent should civil courts determine the content of due diligence obligations and in which cases are law makers required to set standards.
- ▶ What are the preconditions and regulatory options to establish extraterritorial rules on civil liability of downstream actors?

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