Rio+20: Sustainable Development Goals – The Environmental Pillar

Rigorous stock-taking and present proposals

Birgit Lode[1]
Nils Meyer-Ohlendorf[2]

01 May 2012

---

[1] *Birgit Lode is an SWP Associate in the Project "International Environmental Governance: Reform of the UN Environment and Sustainable Development Institutions*
[2] *Dr Nils Meyer-Ohlendorf is a Senior Fellow at Ecologic Institute and Coordinator of its International Governance Program.*

1 Introduction

In June 2012, the United Nations Conference on Sustainable Development (UNCSD) will take place in Rio de Janeiro, Brazil. The objective of the Conference is to secure renewed political commitment for sustainable development. In Rio, the remaining gaps in the implementation of the outcomes of the previous major summits on sustainable development will be discussed as well as new and emerging challenges. Against this backdrop, the timing of Colombia and Guatemala was right to propose in the summer of 2011 the development of a comprehensive and ambitious set of so called Sustainable Development Goals (SDGs). Such a framework might provide for increased visibility – initially of the »Rio+20« Conference itself, subsequently for a more focused perception of challenges and solutions to achieve sustainable development. In addition, UNCSD offers the opportunity to promote, before the current set of Millennium Development Goals (MDGs) expires in 2015, the elaboration of a follow-up process and ensuing set of goals.

2 The quest for a comprehensive set of Sustainable Development Goals

In the past, States have adopted a number of commitments and obligations relevant for sustainable development. These commitments are enshrined – for example – in the Rio Declaration, Agenda 21, the Johannesburg Plan of Implementation, the Millennium Development Goals (MDGs) and numerous multilateral environmental agreements (MEAs). Adopted by virtually all Member States of the United Nations (UN), the commitments constitute a nearly global consensus on key issues of sustainable development. Their implementation should be at the heart of the Rio+20 Summit in June 2012.

Although a strong political support towards the implementation of existing pledges should be the central outcome of the Summit, new sustainable development commitments such as SDGs would be helpful. They could address new and emerging challenges, and close the gaps of the MDG framework. In addition, existing mandatory commitments as well as voluntary agreements, e. g. the current set of MDGs, either expire in 2015 or are of qualitative and general nature, lacking adequate levels of ambition. They fail to set quantitative and time bound targets, which allow for the measureable monitoring of their implementation. In consequence, they have had only a limited impact on sustainable development, and, with some exceptions, their implementation is poor. While the lack of political will is clearly the main culprit for poor performance, the vagueness and general nature of the commitments has contributed to insufficient levels of implementation.

In the face of the past experiences, the Rio+20 Summit should either negotiate new and comprehensive commitments or should initiate a process that could lead to such a set of goals. The proposal by Guatemala and Colombia to adopt sustainable development goals (SDGs) is instrumental in this respect. Their initiative – now also supported by Peru, Brazil, Sweden and the UK – could be helpful if SDGs were complementary to existing commitments, closing their gaps and resolving their ambiguities. In this respect, the »zero

draft« of the UNCSD outcome document recognizes that »goals, targets and milestones are essential for measuring and accelerating progress towards sustainable development«.

3 Setting the post-2015 Agenda – SDGs in relation to MDGs

In the debates on the proposal to create Sustainable Development Goals until 2015 the then expiring MDGs play a central role. Moving beyond goals designed largely for poor countries to goals for all countries requires a thorough reassessment of the MDG process, i.e. its successes and failures. The maturing process of the MDGs needs to be condensed to such an extent that in 2015 a new set of Sustainable Development Goals is actually prepared to take over.

This is ambitious as an attempt should be made to shape the process of elaborating specific SDGs as broad and inclusive as possible, in particular engaging developing countries. A re-release of goals not specified in sufficient detail such as MDG 7 (Ensure Environmental Sustainability) should be avoided, as well as goals like MDG 8 (Develop a Global Partnership for Development) which, strictly speaking, does not frame a target but rather a means to implement other targets. Furthermore, consideration should be given to a better translation of global goals into regional and national policy making.

Without taking into account the gaps and shortcomings of the present MDG framework, any global development agenda designed for the period after 2015 would be doomed to failure. Therefore, in Rio any debate on a future framework of SDGs needs to be linked to considerations on how to advance the UN development agenda beyond 2015, i.e. focusing on what will replace the MDGs after their expiry date in 2015. For example, some of the efforts made in meeting the MDGs have lead to increased pollution and destruction of ecological services. The SDGs need to change that and should set new growth metrics going “beyond GDP” to ensure a reliable orientation towards sustainability.

In order to keep the promise of this historic framework, existing goals not yet fully achieved by 2015 need to be integrated in proposals for a new set of Sustainable Development Goals (SDGs). However, in doing so, the risk should be noted that both overloading and diluting the new framework needs to be avoided. Neither each and every one of the themes and issues proposed should be included, nor should be attempted to draw up a comprehensive, all-encompassing agreement that, as a result, lacks brevity as well as clear and concise wording. Therefore, the proposal of UN Secretary-General Ban Ki-moon to help coordinate the efforts in this regard by appointing a senior advisor should be accepted.

4 SDGs – Shaping the scope

Like the MDGs, the SDGs should be milestones and benchmarks for achieving sustainable development, with measurable targets and clear-cut timetables. In this respect, SDGs should contain quantitative and time bound commitments.

The last section contains a table of selected sustainable development commitments, their shortcomings and possible remedies, as discussed and agreed by relevant political fora. The table encompasses a fairly broad spectrum of issues pertaining to the environmental pillar of the concept of sustainable development. They are grouped in three main sections: Resources, Water, and Energy. Thereby, we do not question the common understanding of the concept of sustainable development, comprised of three interrelated pillars – the environmental, the social, and the economic pillar. Future SDGs need to fully reflect the holistic nature of the concept of sustainable development. Commitments in relation to the economic and social pillars of sustainable development need to be incorporated as well. In light of the suggestions made by states and international organizations as well as various stakeholders, as outlined in the last section, we, at this point, make a start considering the incorporation of the following proposals into a future set of SDGs. Notably, these proposals have either been adopted by the UN, including its agencies, or they have been brought forward by other international organizations or relevant actors in the process, i. e. Member States:

5 The Environmental Pillar - Set of proposed global goals for future SDGs

- **Biodiversity:** To ensure that, by 2030, the »Aichi Biodiversity Targets« have been realized.

- **Sustainable Consumption and Production (SCP):** Achieving, by 2030, a significant rise in production processes reflecting the best available technologies for eco-efficiency, recycling, remanufacturing, reuse of waste materials, product durability and longevity.

- **Ecosystem Services:** Double, by 2030, the establishment of national and regional protected areas in order to maintain a wide range of ecosystem services.

- **Resource efficiency:** By 2030, to increase industrial resource efficiency by 30%.

- **Forests:** To reduce by three quarters, between 2005 and 2030, the deforestation rates.

- **Land, including agriculture:** Achieving, by 2030, zero net land degradation.

- **Marine environment:** To halve, between 2005 and 2030, ocean acidity.

- **Sustainable Public Procurement (SPP):** By 2030, two thirds of the world's goods and services are procured by governments from sources certified by objective third parties as sustainably produced.

- **Wastes:** Provide, by 2030, all urban populations with adequate waste services and ensure that full urban waste service coverage is maintained.

- **Water:** By 2030, to have achieved universal access to safe drinking water.

- **Sanitation:** By 2030, to have achieved universal access to basic sanitation.

- **Energy efficiency:** By 2030, to increase energy efficiency by 30%.

- **Energy: Renewables:** By 2030, to increase the share of renewable energy to 30%.

- **Climate:** By 2030, to curb GHG emissions by 30%.

6 The SDG strategy - Rio+20 and beyond

In addition to the framing of a clear and concise set of future SDGs, a well-thought-out strategy for achieving these goals is needed. A less ambitious outcome of the Rio+20 Summit would be the agreement to initiate a follow-up process leading to adequate commitments in the future. Ideally however, in June 2012 the United Nations Conference on Sustainable Development (UNCSD) will succeed in negotiating a set of new and comprehensive commitments and adopt a so called »Rio+20 Mandate« , not only including potential goals but also a roadmap for the post-Rio process until 2015

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
Resources					
Biodiversity	**2010: CBD COP-10:** • **By 2015/2020:** Realize twenty **"Aichi Biodiversity Targets"**, including conservation and expansion of protected areas; revision and steady implementation of National Biodiversity Strategies • **By 2050:** Biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people **2011-2020: UN Decade on Biodiversity** **IUCN (zero draft):** • Implementation of Strategic Plan for Biodiversity	**Para. 23 3rd bullet point:** Full implementation of CBD **MDG 7, Target 7.B:** Reduce biodiversity loss, achieving, **by 2010**, a significant reduction in the rate of loss	**Convention on Biological Diversity (CBD)**	**Chapter 15: Conservation of biological diversity** • Conservation of biological diversity; sustainable use of biological resources; support CBD • National strategies, including the integration of conservation strategies in national development strategies • Country studies and periodic world reports • Recognize and foster knowledge of indigenous people • Appropriate environmental impact assessment procedures • Technical and scientific cooperation	**Para. 44: Biodiversity** • Encourage synergies between CBD and other MEAs • Financial and technical support to developing countries, including capacity-building • Control invasive alien species • Recognize rights of local/ indigenous communities as holders of traditional knowledge
Consumption and production patterns	**CSD:** 10-Year Framework of Programmes on Sustainable Consumption and Production **(10YFP on SCP)** **Stakeholder Forum for a Sustainable Future (zero draft):** • **By 2020:** Governments promote production processes that reflect best available technologies for eco-efficiecy, recycling, remanufacturing, reuse of waste materials, product durability and longevity; **Millennium Consumption Goals**	**Para. 6 5th bullet point:** Current unsustainable patterns of production and consumption must be changed	**Principle 8:** States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic	**Chapter 4: Changing Consumption Patterns** • National policies and strategies • New concepts of wealth and prosperity which are less dependent on the Earth's finite resources and more in harmony with the Earth's carrying capacity • Governments to review and improve environmental content of government procurement policies • Move towards environmentally sound pricing	**Chapter III: Changing unsustainable patterns of consumption and production (Paras 15-19)** • 10-year framework of programmes • Increased investment in cleaner production and eco-efficiency • Corporate environmental and social responsibility & accountability • Public procurement policies that encourage development and diffusion of environmentally sound goods and services • Environmental impact assessment procedures

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	Initiative (MCGI) (zero draft): • **2012-2020:** MCGs; consumption targets to motivate the world's rich to consume more sustainably; to complement MDGs		policies		
Ecosystem Services	**2001:**Millennium Ecosystem Assessment (MA) **Switzerland (zero draft):** • **By 2032:** Transformation towards green economy: preservation of important ecosystem services; sustainable management of fragile ecosystems (e.g. mountains, drylands, forests) **IUCN (zero draft):** • **By 2020:** Appropriate economic tools, incentives, and policies, including payments for ecosystem services	–	**Principle 7:** States co-operate in spirit of global partnership to conserve, protect and restore health and integrity of Earth's ecosystem	**Para 10.1:** • Ecosystems provide variety of services essential to integrity of life-support systems and productive capacity of environment **Para 15.3:** • Conserve ecosystems, with view to sustainable management and use of biological resources **Paras 15.5 and 16.25:** • Rehabilitation and restoration of damaged ecosystems; with biotechnology playing an important role	**Para 7 lit. (e):** • Dependence on ecosystems essential to well-being of indigenous people **Para 24:** • Increased impact of human activities on ecosystems that provide essential resources and services for human well-being and economic activities; implement protection strategies **Para 26 lit. (c):** • Preserve or restore ecosystems and their functions, in particular in fragile environments.
Resource efficiency	**Switzerland (zero draft):** • **By 2020:** 20% increase in industrial resource efficiency • **2012-2032:** Monitoring of development towards green economy includes indicator on resource efficiency (cf. also Japan (zero draft)) **IGES (zero draft):** • International fund for sustainable resource management/resource efficiency by utilizing portion of tax-income from economic policy instruments at different stages of life cycle of products and services	**Para 6, 5th bullet point:** Prudent management of natural resources; **Para. 21:** Free humanity from threat of living on planet irredeemably spoilt by human activities, whose resources no longer suffice for their needs.	**Principle 23:** Natural resources of people under oppression, domination and occupation shall be protected	**Para 4.18:** • Greater efficiency in use of resources; Governments and industry intensify efforts to use resources in economically efficient and environmentally sound manner **Para 26.5 lit. (c) ii:** • Increase efficiency of indigenous people's resource management systems; e.g. by disseminating suitable technological innovations **Para 30.6:** • Governments, businesses and industry	**Para 15:** • (…)improving efficiency and sustainability in the use of resources (…) **Para 22:** • Prevent and minimize waste and maximize reuse, recycling and use of environmentally friendly alternative materials, with the participation of government authorities and all stakeholders, in order to minimize adverse effects on the environment and improve resource efficiency, with financial, technical and other

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
				(incl. transnational corporations) aim to increase efficient resource utilization **Para 35.2:** • Sciences play increasing role in improving efficiency of resource utilization	assistance for developing countries.
Forests, incl. drylands	**2008: UN REDD; 2010: REDD+** **Greenpeace (zero draft):** • **By 2020:** zero deforestation **Japan (zero draft):** • Means of implementation listed in "Non-Legally Binding Instrument on all type of Forests (NLBI)" agreed in 7th session of UN Forum on Forests **FSC (zero draft):** • Forests foundation of green economy; transparent, effective, balanced multi-stakeholder governed forest and chain-of-custody certification systems **Brazil (zero draft):** • Overcome unsatisfactory implementation of UNCCD; → greater ethical and political commitment; new forms of international cooperation.	**Para 23, 2nd bullet point:** Intensify collective efforts for management, conservation and sustainable development of all types of forests **Para 23, 3rd bullet point:** full implementation of CBD and the UNCCD.9	**UNCCD;** **"Forest Principles"**	**Chapter 11: Combating deforestation** • Strengthen forest-related national institutions • Enhanced scope and effectiveness of activities related to management, conservation and sustainable development of forests • **By 2000:** Sustainable utilization and production of forests' goods and services **Chapter 12: Combating desertification and drought** • Information and monitoring systems • Intensified soil conservation • Afforestation and reforestation • Integrated development programmes in areas prone to desertification • Anti-desertification and drought preparedness and -relief programmes	**Para 45: Global sustainable forest management** • partnerships among governments and stakeholders, incl. private sector, indigenous communities, NGOs • Political commitment • Support UN Forum on Forests • Domestic forest law enforcement • Sustainable timber harvesting • Strengthen international cooperation • Support indigenous/community-based forest management systems **Para 41:** • Strengthen implementation of UNCCD in countries experiencing serious drought and/or desertification **Para. 41, lit. (d):** • Prevent and combat desertification; mitigate effects of drought through relevant policies/programmes
Land, incl. agriculture	**FAO, IFAD, WFP, Bioversity International (zero draft):** • **By 2050:** Agriculture and food system to feed approx. 9.3 billion	–	–	**Chapter 10: Integrated approach to the planning and management of land resources** • **By 1996:** Policies supporting best	**Para 40 (Agriculture):** • Integrated land management plans, i.e. sustainable use of renewable resources, integrated assessments of

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	people (over 2 billion more than now); i.e. profound change of agriculture and food system needed; agriculture to become more productive **Israel (zero draft): Position Paper on Green Agriculture and Green Economy:** • Green agriculture as means of economic growth; e.g. macro-economic policies for green agriculture • Protect soil fertility; prevent soil erosion • Identify main stakeholders (farmers, consumers, public & private sector, civil society) • PPPs important for implementation **Switzerland (zero draft):** • Greening the economy with agriculture → Increasing food security • Efficiency increase of agriculture systems with high ecological footprint • Productivity increase of agriculture systems with low ecological footprint • Principles for responsible agriculture investments (RAI) for FDI			possible use of land and sustainable management of land resources • **By 1996:** Mechanisms for active involvement and participation in decision-making on land use and management • **By 1998:** Strengthen institutions and coordinating mechanisms for land and land resources • **By 2000:** Strengthen planning, management and evaluation systems for land and land resources **Chapter 14: Promoting sustainable agriculture and rural development** • **By 1995:** Integrate environmental and sustainable development with policy analysis for food and agriculture sector • **By 1998:** Multisectoral plans, programmes, policy measures to enhance sustainable food production and food security • **By 2005:** Ability of developing countries, particularly LDCs, to manage policy, programming, planning activities	socio -economic and environmental potentials • Strengthen capacity of governments, local authorities and communities to monitor and manage quantity and quality of land resources • Enhance productivity of land in agriculture, e.g. through indigenous/local community-based approaches • Support contribution of stakeholders in rural planning and development • Policies/laws that guarantee well defined and enforceable land use rights • Strengthen coordination of existing initiatives to enhance sustainable agricultural production and food security
Marine environment, incl. oceans and fish	**2003:** Creation of **UN Oceans** **2010: By 2012:** Parties to CBD agree to establish network of marine protected	–	–	**Chapter 17: Protection of the Oceans, all kinds of Seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use**	**Paras 30-32 (Oceans and fisheries):** • Effective, transparent and regular inter-agency coordination mechanism on ocean and coastal issues within

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
stocks	areas (MPAs) **Australia (zero draft):** **Framework for action to mobilize efforts towards "blue economy"** • Conservation and sustainable use of marine biodiversity • New multilateral agreement under UNCLOS **New Zealand (zero draft):** • Eliminate harmful fisheries subsidies **Pew Environment Group (zero draft):** • Implement IPOA-IUU (cf. JPoI) • **By 2015:** Eliminate destructive fishing practices • **By 2015:** Maintain/restore fish stocks to MSY • Establish MPAs, including marine reserves • impact assessments			**and development of their living resources** • Integrated management and sustainable development of coastal areas, including exclusive economic zones; • Marine environmental protection; • Sustainable use and conservation of marine living resources of high seas/under national jurisdiction; • Address critical uncertainties for management of marine environment and climate change; • Strengthen international and regional cooperation and coordination	UN system • **By 2015:** Maintain/restore fish stocks to maximum sustainable yield (MSY) • **By 2004:** FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) put into effect • **By 2005:** FAO International Plan of Action for the Management of Fishing Capacity put into effect • Sustainable development of aquaculture • Conservation and management of oceans, giving regard to international instruments • Maintain productivity and biodiversity of important and vulnerable marine/coastal areas • **By 2004:** Regular process under UN for global reporting and assessment of state of marine environment, including socio -economic aspects.
Sustainable public procurement (SPP)	**Switzerland (zero draft):** • Public procurement on national and sub-national level respects sustainability criteria • Implementation of SPP; Tools: Marrakech Task Force approach to SPP; UNEP SPP capacity building programme → **By 2017:** 25 countries → **By 2022:** 60 countries → **By 2027:** 120 countries	–	–	**Para. 4.23:** • Improve environmental content of government procurement policies **Para. 20.13, lit (a):** • Governments to establish/modify purchasing specifications to avoid discrimination against recycled materials, provided those materials are environmentally sound	**Para. 19 (Public Procurement):** • Take sustainable development considerations into account in decision-making, including public procurement • Public procurement policies that encourage development and diffusion of environmentally sound goods and services

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	→ **By 2032:** All countries **Stakeholder Forum for a Sustainable Future (zero draft):** • **By 2020:** Majority of world's goods and services are procured by governments from sources certified by objective third parties as sustainably produced.			**Para. 34.18, lit. (e) iii:** • Purchase of patents/licenses on commercial terms for transfer to developing countries on non-commercial terms as part of development cooperation for sustainable development	
Wastes, incl. recycling	**Singapore (zero draft):** • Paradigm shift: Treat waste as resource rather than just something to be thrown away • 3Rs: Reduction at source, reuse, material recovery • International Partnership for Expanding Waste Management Services of Local Authorities (IPLA) → vehicle to foster technology transfer • New and emerging waste streams (e.g. electronic waste, plastics in marine environment, oil and lubricants) require special (inter)national actions • Waste minimization and cyclical use of materials in the economy **Japan (zero draft):** – Introduction/revision of legal framework on environmentally-sound management of wastes **Stakeholder Forum for a Sustainable Future (zero draft):** • Waste to be minimized; reuse and	–	–	**Para. 4.19.:** • Governments, industry, households, the public reduce generation of wastes and waste products **Para. 7.39:** • National goals for sustainable management of waste **Chapter 20: Environmentally Sound Management of Hazardous Wastes** (incl. Prevention of Illegal International Traffic in Hazardous Wastes) • Prevention and minimization of waste • Strengthen institutional capacities • Strengthen international cooperation • Prevent illegal international traffic **Chapter 21: Environmentally Sound Management of Solid Wastes and Sewage Related Issues** – Minimizing wastes – Maximizing environmentally sound waste reuse and recycling – Environmentally sound waste disposal – Extending waste service coverage	**Para. 22:** • Prevent and minimize waste • Maximize reuse, recycling and use of environmentally friendly materials • Participation of government authorities and all stakeholders • Financial, technical and other assistance for developing countries **Para. 23:** • **By 2020:** Chemicals are used and produced in ways that lead to minimization of significant adverse effects on human health and environment • **By 2003:** Rotterdam Convention on Prior Informed Consent Procedures for certain hazardous Chemicals and Pesticides in international trade in force • **By 2004:** Stockholm Convention on Persistent Organic Pollutants in force **Para. 35:** • Governments improve measures and internationally agreed regulations regarding effective liability

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	recycling to be maximized; • **By 2020:** Production processes reflect best available technologies for eco-efficiency, recycling, remanufacturing, reuse of waste materials, product durability and longevity			**Chapter 22: Safe and Environmentally Sound Management of Radioactive Wastes**	mechanisms, relevant to transboundary movement of radioactive waste
Water					
Water: General	**UNECE: 2012-2015: Astana Water Action** • Further implementation of water-related commitments • Water & water management as integral parts of development strategies • Involve stakeholders, e.g. water users, NGOs	**Para. 92, 1st bullet point:** Increased investment in water sector	–	**Para. 18.11, lit. (a):** • **By 2000:** Targeted national action programmes and appropriate institutional structures and legal instruments **Para. 18.36:** • Holistic freshwater management	**Para. 29:** • Effective coordination among international and intergovernmental bodies and processes working on water -related issues
Water: Access, incl. safe drinking water	**World Water Week "Stockholm Statement":** • **By 2020:** 20% decrease in water pollution **Japan (zero draft):** • Solve issue of water pollution by enhancing water environment governance in each country	**MDG 7, Target 7.C: By 2015:** Halve proportion of people without sustainable access to safe drinking water	–	**Chapter 18: Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources** • Satisfy freshwater needs of all • Provision of safe drinking-water → protected areas for sources of drinking-	**Para. 7, lit. (a):** • **By 2015:** Halve proportion of people without access to safe drinking water **Para. 25, lit. (d):** • Water pollution prevention to reduce health hazards **Para. 40, lit. (i):**

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	UNECE: 2012-2015: Astana Water Action • Policies and measures to ensure access to affordable water supply for poor and disadvantaged groups • Strengthen compliance with drinking water standards • Information on status of drinking and bathing water quality available to public via all media			water supply • Effective water pollution prevention and control programmes • **By 2000:** Reduce prevalence of water-associated diseases • **By 2000:** All urban residents have access to at least 40 litres per capita per day of safe water	• Policies and laws that guarantee well defined and enforceable water use rights **Para. 54, lit. (l):** • Transfer and disseminate, technologies for safe water **Para. 66:** • Protection of water quality
Water: Resources	**World Water Week "Stockholm Statement":** **By 2020:** • 20% increase in water efficiency in agriculture • 20% increase in water use efficiency in energy production • 20% increase in the quantity of water reused **Japan (zero draft):** • Waste water management • More efficient use of water **UNECE: 2012-2015: Astana Water Action** • Better manage water resources →Integrated water resources management (IWRM); • Required water metering of all users • Promote rainwater harvesting on household and agricultural levels • Reuse of treated wastewater in agriculture, based on WHO guidelines • PPPs for increasing efficiency and	**Para. 23, 4th bullet point:** Stop unsustainable exploitation of water resources by developing water-management strategies.	–	**Chapter 18: Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources** • Adequate supplies of water of good quality for entire population • Innovative technologies → fully utilize limited resources; safeguard those against pollution • Protection of water resources (e.g. from depletion, pollution, degradation) • **By 2000:** Efficient water-use programmes to attain sustainable resource utilization patterns • **By 2000:** Detailed study regarding feasibility of installing water resources assessment services • Holistic management of resources; interconnectedness of elements related to freshwater/freshwater quality; • Efficient and equitable allocation of water resources	**Para. 7., lit. (l):** • Minimize degradation of water resources **Para 26:** • **By 2005:** Integrated water resources management and water efficiency plans, incl. support to developing countries **Para 40, lit. (c):** • Increase understanding of sustainable use, protection and management of water resources **Para 66:** • Development and effective management of water resources across all uses • Protection of aquatic ecosystems • Protection of water resources against pollution • Support efforts for developing non - conventional water resources

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	productivity of water use in industry and agriculture • Promote water-efficient techniques and low-water-content products in (inter)national trade				
Water: Sanitation	**2008: International Year of Sanitation** **2009: Japan Sanitation Consortium (JSC)** est. **UNECE: 2012-2015: Astana Water Action** • Policies and measures to ensure access to sanitation for poor and disadvantaged • Invest in environmentally friendly sanitation • Introduce environmentally friendly, water-saving sanitation systems **UNSGAB (zero draft):** • **By 20XX:** Universal access to basic sanitation • **After 2015:** Integrated monitoring programme of indicators linked to criteria re human right to water and sanitation & factors determining enabling environment become effective	**MDG 7 Target 7.C: By 2015:** Halve proportion of people without sustainable access to basic sanitation **Para. 92, 1st bullet point:** Increased investment in sanitation sector	–	**Para. 3.8:** • Access to sanitation for the poor **Para. 6.3:** • Comprehensive and sustainable water policies to ensure sanitation **Para. 6.41, lit. (c) i:** • Water pollution control technologies on basis of health risk assessment **Para. 18:** • **By 2000:** 75% of urban population has onsite/community facilities for sanitation • Enhanced access to sanitary services	**Para. 7, lit. (m):** • Increase access to sanitation **Para. 8:** • **By 2015:** Halve proportion of people without access to basic sanitation **Para. 25, lit. (d):** • Technologies for affordable sanitation, e.g. mitigating effects of groundwater contamination; monitoring systems; effective legal frameworks **Para. 54, lit. (l):** • Transfer and disseminate, technologies for sanitation
Energy					
Energy: General	**2010: UNEP (The Emissions Gap Report)** • Mitigation measures for **2020**: Improved energy efficiency, low-emission energy mix, reduction of non-$C0_2$ greenhouse gas emissions	–	–	–	**Para 9, lit. (a):** • Improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	UN: The Future We Want, zero Draft (January 2012) • **Universal access to a basic minimum level of modern energy services by 2030** **UN Energy** in the run-up to Rio+20: • UN Energy has proposed 3 goals to be achieved by **2030**: 30/30/30 goals (reduction in GHG emissions, energy efficiency, renewable energies **IEA (2011 Clean Energy Progress Report)** • removal of fossil fuel subsidies and implementation of transparent, predictable and adaptive incentives for cleaner, more efficient energy options				**Para 20, lit. (b):** • Integrate energy considerations, including energy efficiency, affordability and accessibility, into socio-economic programmes, especially into policies of major energy-consuming sectors, and into the planning, operation and maintenance of long-lived energy consuming infrastructures **Para 20, lit. (g):** • Develop and utilize indigenous energy sources and infrastructures **Para 20, lit. (s):** • Strengthen national & regional energy institutions **Para 56, lit. (d):** • Assisting developing countries in providing affordable energy to rural communities, particularly to reduce dependence on traditional fuel sources for cooking and heating
Energy efficiency	**UN: The Future We Want, Zero Draft (January 2012)** • **Improve energy efficiency at all levels with a view to doubling the rate of improvement by 2030** **2011: IEA "Clean Energy Progress Report"** • More policy effort is needed to capture the near-term profitable and	–	–	**Para 4.18**: • Governments, in cooperation with industry **Para 7.49:** • Energy-efficient technology, alternative/renewable energy for human settlements, impact on human health and the environment."	**Para 20, lit. (b):** • Integrate energy considerations, including energy efficiency, affordability and accessibility, into socio-economic programmes (…) **Para 26, lit. (f):** • Efforts and programmes for energy-efficient, sustainable and costeffective desalination of seawater, water recycling and water harvesting from coastal fogs in

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation
	low cost energy savings opportunities • **UN Energy** in the run-up to Rio+20: • Improve energy efficiency by 30 per cent by 2030				developing countries
Energy: Renewables	**2011: : IEA "Clean Energy Progress Report"** • Achieving sustainable energy goals will require a doubling of all renewable energy use by 2020, halving global energy-related CO_2 emissions by 2050 will require a doubling (from today's levels) of renewable generation by 2020 **UN Energy** in the run-up to Rio+20: • Proposed a doubling of renewable energy **UN: The Future We Want, zero Draft (January 2012)** • **Doubling the share of renewable energy in the global energy mix by 2030**	–	–	**Para 7.49:** • Energy-efficient technology, alternative/renewable energy for human settlements, impact on human health and the environment."	**Para 9, lit. (b):** • Improve access to modern biomass technologies and fuelwood sources **Para 9 lit. (c):** • Promote a sustainable use of biomass **Para 9, lit. (d):** • Transition to the cleaner use of liquid and gaseous fossil fuels **Para 9, lit. (e):** • Develop national energy policies and regulatory frameworks **Para 9, lit. (f):** • Enhance international and regional cooperation
Energy / Carbon Market	**World Energy Council:** • Energy markets are increasingly international → reliable rules for energy trading, in accordance with existing WTO rules **IGES:** • Make energy systems resilient against disasters	–	–	–	–

Theme	Post-MDG stock-taking and beyond	MDGs	Rio 1992	Agenda 21	Jo'burg Plan of Implementation

7 Documents and Websites

CBD: Convention on Biological Diversity: http://www.cbd.int/doc/legal/cbd-en.pdf

COP 10 Final Report: http://www.cbd.int/doc/meetings/cop/cop-10/official/cop-10-27-en.pdf

COP 10 Decision X/29, Marine and coastal biodiversity: http://www.cbd.int/doc/decisions/cop-10/cop-10-dec-29-en.pdf

2010-2011 UN Decade on Biodiversity: http://www.cbd.int/2011-2020/

CSD: 10 Year Framework of Programmes on Sustainable Consumption and Production (10 YFP on SCP): http://www.un.org/esa/dsd/dsd_aofw_scpp/scpp_tenyearframprog.shtml

EU: EU-assessment of existing resource use indicators should be ready by early 2012: http://resource-indicators.eu-smr.eu/home

FAO: International Plan of Action for the Management of Fishing Capacity: ftp://ftp.fao.org/docrep/fao/006/x3170e/X3170E00.pdf

International: Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU): http://www.fao.org/docrep/003/y1224e/y1224e00.HTM

"Forest Principles": http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm

IEA: Clean Energy Report 2011: http://www.iea.org/publications/free_new_Desc.asp?PUBS_ID=2384

Johannesburg 2002: Johannesburg Plan of Implementation:
http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm

JSC: Japan Sanitation Consortium: http://www.apwf-knowledgehubs.net/download/jsc-printable_flyer.pdf

MA: Millennium Ecosystem Assessment: http://www.maweb.org/en/About.aspx

MCGs: Millennium Consumption Goals:
http://www.millenniumconsumptiongoals.org/

MDGs: Millennium Development Goals; United Nations Millennium Declaration:
http://mdgs.un.org/unsd/mdg/Host.aspx?Content=/Products/GAResolutions.htm
http://www.un.org/documents/ga/docs/56/a56326.pdf

MEAs: Multilateral Environmental Agreements:
http://informea.org/

REDD+: REDD+ goes beyond REDD, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.
http://www.un-redd.org/AboutREDD/tabid/582/Default.aspx

Rio 1992: General Information:

http://www.un.org/geninfo/bp/enviro.html

The Rio Declaration on Environment and Development:

http://www.unep.org/Documents.Multilingual/Default.asp?documentid=78&articleid=1163

Agenda 21: http://www.un.org/esa/dsd/agenda21/

The Statement of Forest Principles:

http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm

The United Nations Framework Convention on Climate Change (UNFCCC):

http://unfccc.int/key_documents/the_convention/items/2853.php

Rotterdam Convention:

Rotterdam Convention on the Prior Informed Consent Procedure for certain hazardous Chemicals and Pesticides in international trade:

http://www.pic.int/TheConvention/Overview/TextoftheConvention/tabid/1048/language/en-US/Default.aspx

SDGs: Sustainable Development Goals

http://www.gg2020.net/fileadmin/media/gg2020/GG2020_2011_Climate_Beyond_Global_Deal.pdf.pdf

Stockholm Convention:

Stockholm Convention on Persistent Organic Pollutants: http://chm.pops.int/Convention/ConventionText/tabid/2232/Default.aspx

UNCCD: United Nations Convention to Combat Desertification: http://www.unccd.int/convention/text/pdf/conv-eng.pdf

UNCLOS: United Nations Convention on the Law of the Sea: http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

UNECE: Astana Water Action: http://www.unece.org/fileadmin/DAM/env/documents/2011/ece/ece.astana.conf.2011.5.e.pdf

UN Energy: The United Nations' inter-agency mechanism on energy: http://www.un-energy.org/

UNEP: Synthesis Report: Bridging the Emissions Gap: http://www.unep.org/publications/contents/pub_details_search.asp?ID=6227

UN-Oceans: An interagency coordination mechanism on ocean and coastal issues within the UN system: http://www.unoceans.org/Index.htm

UN-REDD: United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD)

http://www.un-redd.org/AboutUNREDDProgramme/tabid/583/Default.aspx

World Energy Council:

http://www.worldenergy.org/documents/wec_2011_assessment_of_energy_and_climate_policies.pdf

2008 International Year of Sanitation:

http://esa.un.org/iys/

Submissions UNCSD "zero draft"

Australia:

http://www.uncsd2012.org/rio20/content/documents/692Australian%20National%20Submission%20to%20Rio20%20Compilation%20Draft.pdf

Brazil:

http://www.uncsd2012.org/rio20/content/documents/BRAZIL%20Submission%20%20English%201.11.11doc.pdf

Forest Stewardship Council (FSC):

http://www.uncsd2012.org/rio20/content/documents/Contribution%20Forest%20Stewardship%20Council%20to%20outcomes%20of%20the%20Rio.pdf

Greenpeace:

http://www.uncsd2012.org/rio20/content/documents/72GREENPEACE_demands_a_just_fairGreenEconomy_RioSummit2012.pdf

Institut du Développement Durable et des Relations Internationales (IDDRI):

http://www.uncsd2012.org/rio20/content/documents/422Rio20oceans.pdf

Institute for Global Environmental Strategies (IGES):

http://www.uncsd2012.org/rio20/content/documents/155The%20IGES%20Proposal%20for%20Rio+20_ver.1.0_FINAL%20rev(attachment%20incl.).pdf

International Union for Conservation of Nature (IUCN):

http://www.uncsd2012.org/rio20/content/documents/163iucn1.pdf

Israel:

http://www.uncsd2012.org/rio20/content/documents/366Israels%20input%20to%20compilation%20document%20%20-%20final.pdf

Japan:

http://www.uncsd2012.org/rio20/content/documents/113Japan.pdf

New Zealand:

http://www.uncsd2012.org/rio20/content/documents/231Rio20New%20Zealand%20submission.pdf

nrg4SD – Network of Regional Governemnts:

http://www.uncsd2012.org/rio20/content/documents/376nrg4SD_Contributions%20to%20Rio%2020%20compilation%20document_Final.pdf

Oxfam:

http://www.uncsd2012.org/rio20/content/documents/Oxfam%20Submission%20for%20Rio+20%20Compilation%20Document.pdf

Rome-based Organizations (FAO, IFAD, WFP, Bioversity International):

http://www.uncsd2012.org/rio20/content/documents/618RIO%20COMMON%20STATEMENTRome-based%20Organisations%20Submission%20FINAL4Nov.pdf

Singapore:

http://www.uncsd2012.org/rio20/content/documents/86National%20Submission%20for%20UNCSD%20%28Singapore%29.pdf

Stakeholder Forum for a Sustainable Future:

http://www.uncsd2012.org/rio20/content/documents/20111101%20-%20SF%20Zero%20Draft%20submission%20-%20FINAL.pdf

Switzerland:

http://www.uncsd2012.org/rio20/content/documents/Switzerland%20Submission%20UNCSD%202012%20%28final%29%20-%201%20November%202011.pdf

The Millennium Consumption Goals Initiative (MCGI):

http://www.uncsd2012.org/rio20/content/documents/312MCG%20Proposal%20for%20Rio20-v12F.pdf

The Pew Environment Group:

http://www.uncsd2012.org/rio20/content/documents/239Pew%20Environment%20Group%20zero%20draft%20submission_FINAL.pdf

United Nations SG's Advisory Board on Water and Sanitation (UNSGAB):

http://www.uncsd2012.org/rio20/content/documents/UNSGAB%20contribution%20UNCSD.pdf

World Water Week "Stockholm Statement":

http://www.siwi.org/documents/WWW_PDF/2011/2011-Stockholm-Statement.pdf