



FIELD
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Future EU Climate Change Policy – Challenges and Opportunities for New Member States and Candidate Countries

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Background Information

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1 Introduction

Against the backdrop of current international negotiations on future climate change policies, Ecologic – Institute for International and European Environmental Policy – is organising the conference “Future EU Climate Change Policy – Challenges and Opportunities for New Member States and Candidate Countries”, which is the final event of a series of workshops in the new Member States. This series has been commissioned by the European Commission and is organised in co-operation with

- the Institute for Sustainable Development (ISD), Warsaw,
- the Institute for Environmental Studies (IVM) at the VU University of Amsterdam,
- the Foundation for International Environmental Law and Development (FIELD), London,
- the German Institute for Economic Research (DIW), Berlin,

as well as a network of experts.

After an initial conference in Warsaw in January 2006 and workshops in Riga, Sofia, Ljubljana and Prague, this conference concludes the project that has aimed at fostering public debate on future climate change policy in the new Member States (NMS) and Candidate Countries (CC). The project’s discussions addressed a wide range of issues pertaining to future EU climate change policies and the implications for the NMS and CC, and involved relevant stakeholders from business, government agencies, academia and non-governmental organisations (NGOs).

This background paper presents the main findings of the project and provides an overview of the current status of European and International climate change policies at the eve of the next Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) and the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP), which will take place in Bali in December 2007.

2 Main findings of the project

A number of messages appeared throughout the project’s discussions. The following paragraphs are intended to provide a summary of the main messages expressed by participants. The EU negotiating position for Bali – coherent and well-known to the international community – mirrors many of these messages and reflects the constructive input and support from NMS and CC. Given the wealth of discussions, this summary is neither binding nor exhaustive, and does not necessarily represent consensus.

2.1 Benefits and Costs of Climate Change Policies

- It was agreed that climate change poses a great threat and requires urgent and comprehensive action by government, business and society alike. The overall economic, health and security benefits were considered to outweigh by far the investments required

to combat climate change effectively. It was argued that these investments are essentially an insurance premium that needs to be paid to avoid the far greater costs of inaction.

- There was agreement that climate change policies provide an opportunity for economic and technological innovation and modernisation. It was considered very likely that the most energy and resource efficient economies will be the most competitive ones in the future. Europe – as a first mover – is well positioned in this context and has a competitive edge in the area of environmental technologies, one of the fastest growing markets in the world. The notion that climate change policies and economic growth exclude each other was rejected as a myth, which oversimplifies and underestimates the innovation potential of climate change policies. The projected increases in fossil energy prices will make renewable energies and energy efficiency measures even more conducive to enhanced competitiveness.
- Workshop discussions, however, revealed uneasiness as to whether climate change policies will pose a burden on the fragile economies of the NMS. It was argued that economic growth in the NMS will inevitably come hand in hand with increases in greenhouse gas emissions. It was observed that according to mainstream thinking in the NMS, reductions in emissions come with a hefty social and economic price.

2.2 Awareness-raising and public involvement

- A sense of urgency with respect to climate change is in many cases still lacking in the NMS. Other problems have a higher priority in public perception. The level of public debate and awareness related to climate change issues is still considerably lower in the NMS and CC than in the EU-15. Awareness raising for climate change among the general public, policy-makers and business is crucial.
- There was consensus that NMS governments should improve consultations with all relevant stakeholders on climate change policies and their implications. In this context, it was emphasised that these consultations must be an exercise driven by the NMS and not the European Commission. However, some participants also maintained that input was needed from outside their countries to give more weight to climate change considerations in national debates.
- The climate debate should be linked to the aspects that really affect people's everyday life, such as energy bills, air pollution and business opportunities. The economic benefits of climate change policies for companies as well as individuals should be clearly spelled out.

2.3 Energy Policies in the NMS

- NMS and CC still have much greater potentials than the EU-15 for addressing energy efficiency at relatively low costs. Improved energy efficiency should be a priority for

climate change mitigation strategies in the short- and medium-term. Changes on the energy demand side will be particularly crucial to achieve greater cuts in emissions.

- Despite the great potential, various barriers to the implementation of small-scale energy efficiency measures persist. In particular, local authorities have limited capacities to pursue energy efficiency projects without external support. Transaction costs are often high. Furthermore, in contrast to certain large single investments (as they may occur in the context of renewable energy generation), energy efficiency measures are not likely to receive much publicity. This tends to make them unattractive for politicians. In addition, the link between energy conservation and climate change mitigation is still not obvious for many decision-makers. Finding ways to link small energy-efficiency projects to the Kyoto mechanisms is also a challenge. Green Investment Schemes might offer better prospects in this respect than Joint Implementation.
- The existing institutions for the promotion of energy efficiency require considerable improvement. Generally, such institutions lack funding and often are not very active in promoting measures to reduce energy use. The NMS and CC could benefit from the experience of energy efficiency agencies in the EU-15.
- Energy supply to households is usually considered as a social good, rather than a commodity. Since adequate energy prices are crucial for making progress on energy efficiency, there needs to be a shift away from general subsidising of energy use towards more targeted subsidies for poor households. Governments could subsidise energy conservation measures, e.g. the purchase of energy-efficient household appliances.
- There is a great potential for energy from biomass in the NMS. The current legislative framework does not always provide the right incentives. It must be avoided that high-quality wood is used as a fuel, and the export of biomass should be stopped. Furthermore, current EU policies have been criticised in that they have been shaped in the light of the conditions in the EU-15 concentrating on electricity, while in the new Member States potentials for biomass use mainly lie in the heating sector. Nature conservation concerns are currently not a prominent part of the debate on biomass in the NMS, although these concerns are likely to gain weight.
- In many countries effective legislation for the promotion of renewable energies, such as guaranteed feed-in tariffs, is not yet in place, although role models exist which could be adapted to individual national situations.

2.4 Integrated Approach: Taxation, Funds and Transport

- The need for an integrated and consistent approach to solving the climate problem at national and EU levels was highlighted. Climate change considerations need to be integrated into sectoral and regional policies. The project identified "climate" links from various policy areas that were often treated separately, lacking a consistent strategy – for example the improvement of economic efficiency, the usage of structural funds and fossil fuel subsidies.

- EU structural and cohesion funds constitute an important source of funding for new Member States. These funds offer huge opportunities for climate-friendly investment, but also raise the risk of less-climate friendly investment where consistent strategies are lacking. The latter was the case in the previous funding period, where those countries of the EU-15 that received the bulk of EU funding were also those that experienced the strongest rises in greenhouse gas emissions. Minimum funding shares in EU funds should be earmarked for energy efficiency, renewables and sustainable transport modes. Apart from that, climate change policies need to be better integrated into the Lisbon process and National Reform Programmes.
- The potential of environmental fiscal reforms to induce changes in the economy was stressed. This would include removing subsidies for fossil energy in order to open better opportunities for renewable energy sources.
- Transport was highlighted as a policy area of particular importance for any climate strategy. Increasing emissions from this sector threaten to undo emission reductions achieved in other sectors. However, considerable opportunities for more sustainable transport solutions remain, since the Central and Eastern European countries have inherited transport systems that belong to the most energy-efficient and climate-friendly ones in the world. Greater efforts to preserve and modernise infrastructure and services should be made.

2.5 Requirements for a New Climate Change Regime

- It was agreed that the first commitment period under the Kyoto Protocol is an important but insufficient first step. Further reductions are required and the negotiations on future action should lead to commitments that would allow to reach the 2°C target of the EU, i.e. much deeper reduction targets than adopted under the first commitment period.
- It was also agreed that a new regime should include other countries, such as China and India. All big emitters need to be included in a future global climate regime and some participants strongly rejected the recommendation that they be offered loose reduction targets in order to encourage participation. Apart from that, the new regime should include international aviation and shipping.
- Obligatory targets are crucial for any future regime; technology or intensity targets alone will not be sufficient. Binding emission caps and penalties for non-compliance are essential for the future climate regime to be successful. It was also proposed that countries should adopt concentration targets and then agree on the respective burden for individual countries, according to differentiated criteria.
- A new climate regime should also make stronger reference to technologies and adaptation.

2.6 The New Member States in International and European Climate Change Policies and Negotiations

- The project brought attention of different stakeholders to international climate change regime and its practical implication for concrete policies in different countries.
- Concerning the second commitment period, there was consensus that the EU should continue to take the lead in the global efforts to fight climate change. Meeting the reduction targets under the first commitment period of the Kyoto Protocol will be essential for maintaining European leadership as well as a successful outcome of the current negotiations on a second commitment period.
- In light of projected increases in greenhouse gas emissions from the NMS, participants argued that the NMS should not refrain from further action although most of them are currently in compliance with their reduction commitments under the Kyoto Protocol. General readiness to accept further cuts in greenhouse gas emissions is high, based on the condition that the burden sharing agreement is fair and takes into consideration the specific national circumstances of each country. There was consensus that substantial further emission reductions should be achieved in the EU-15.
- In many cases, the NMS and CC still lack the capacity to take an active part in the international negotiations and even in decision-making processes within the EU. Apart from restrictions associated with the level of economic development, the political weight of the climate change problem in these countries is still too low to stimulate an expansion of capacities. Moreover, the implementation of EU policies and measures, notably the Emissions Trading Scheme, tends to absorb most existing resources in this field, leaving little space for an active approach on post-2012 issues.
- Even though the institutional capacity in NMS and CC to participate in negotiations is generally low, several of these countries have very experienced negotiators. While it is important to further build up capacities in NMS and CC, the EU should also full use of those capacities that already exist and to give these countries adequate opportunity to contribute to negotiations.
- Some participants expressed concerns that the NMS governments still had a too passive attitude towards EU climate policies and were waiting for guidance from the Commission on targets as well as policies and measures, while on the other hand dismissing such guidance as being imposed from outside without taking account their specific needs.
- Regional alliances, such as among the Baltic states or south-eastern European states, could be strengthened or newly built. They could be serve as a powerful tool to jointly develop and negotiate strategies, as well as to design and implement common policies.

2.7 Joint Fulfilment of Commitments

- Given the conclusions of the European Council of March 2007, there was a common expectation that a new burden sharing agreement will be established in the near future. It

was emphasised that the principles of cost-effectiveness and solidarity did not allow for another approach than the EU acting as one and accepting one common target. On the other hand, many differences between old and new MS that will continue to exist and will require a differentiated approach. A new burden sharing agreement needs to be made in a fair and transparent way. To this effect it must be based on a set of criteria that allow for an appropriate differentiation among Member States. The following criteria were proposed:

- cumulative emissions (relates to historical responsibilities),
 - GDP per capita (relates to current economic capacities),
 - carbon dependence of the economy, in particular carbon intensity of electricity production, and potential for alternative energy sources (relates to reduction potentials),
 - emission level in the base year or reference period,
 - tons of CO₂ emissions per person,
 - adaptation capacity and vulnerability to climate change,
 - allocation of benefits from climate policies, including avoided damage.
- Participants voiced concerns that NMS will be confronted with individual and specific reduction targets under a future burden sharing agreement while not being able to react adequately. They agreed that a clear analysis of reduction potentials in these countries, as well as socio-economic implications of possible reduction targets, is a prerequisite for active participation in the negotiations over a post-2012 regime. There is an urgent need for the NMS and CC to catch up with the “old” Member States in terms of developing long-term climate strategies, which requires additional research as well as a comprehensive and informed public debate.
 - It was argued that the term “burden sharing” is misleading, because it disguises the economic opportunities of mitigation efforts. It was suggested that the term “joint fulfilment of commitment” be used instead.

2.8 Future of EU Emission Trading and the Kyoto Flexible Mechanisms

- There was consensus that the current flexible mechanisms should continue. Participants welcomed the promotion by the Commission of the EU Emission Trading Scheme (EU ETS) in the rest of the world.
- It was agreed that the first phase of the EU ETS should be considered as a learning phase, which has yielded only mixed results. The first phase of EU ETS has shown that markets can function and that the amount of allowances is crucial for the mitigation and innovation effect of any trading scheme. The principle of grandfathering was questioned by some participants. According to these participants, it should be replaced – at least in parts – by benchmarking. There were many voices calling for auctioning of a greater

amount of allowances; and there were suggestions to task the European Commission with allocating allowances. The use of revenues from auctioning requires a harmonised approach.

- It was agreed that the flexible mechanisms will only be successful in the future if clear emission reduction targets provide for long-term investment security.
- The importance of clarifying the future role of Joint Implementation (JI) was highlighted. It is expected that JI will continue to play an important role in Russia, Belarus and Ukraine but will most likely cease to operate in the NMS. This is mainly connected with double counting and additionality problems due to participation in the EU ETS and the adoption of other EU environmental legislation. A greater role was expected for International Emissions Trading (IET) in connection with Green Investment Schemes (GIS – a concept meaning that revenue from sold surplus allowances under the Kyoto Protocol is reinvested in mitigation measures). However, the application of IET and GIS is still at an early stage, and developing appropriate rules for GIS is still an important challenge.
- NMS can be expected to evolve from sellers into buyers of certificates, and from JI host countries to Clean Development Mechanism (CDM) investor countries.

2.9 The Role of Adaptation

- There was consensus that the issue of adaptation will play a greater role in the future. While calculations of mitigation costs have become more detailed and precise over the last few years, there is only little information to date on the exact costs of adaptation.
- The EU will have little means to support adaptation efforts, thus the bulk of the adaptation measures will have to be taken by Member States and private entities. However, it must be taken into account that some Member States, notably Malta and Cyprus, will need support from the EU to adapt, given their particular vulnerability to the impacts of climate change.
- Parties acknowledged that the EU has responsibilities for addressing adaptation needs of developing countries under the UNFCCC.

3 Status of Climate Change Policies in the EU

3.1 Status of Commitments in the EU and the Candidate Countries

Under the Kyoto Protocol, the EU committed itself to reducing greenhouse gas (GHG) emissions by an overall target of 8% below 1990 levels by 2008-2012, the first commitment period. This target only covers the 15 Member States that comprised the EU at the time when the Protocol was agreed. The EU made use of Article 4 of the Kyoto Protocol, which allows groups of countries to accept a common emission target and to redistribute that target internally ('bubbling'). Table 1 below summarises the different GHG emissions reduction

targets of the old EU Member States and their implementation status.¹ Table 2 provides similar information for the new Member States and Candidate Countries.

Table 1: Emission Reduction Commitments of EU-15 under the Kyoto Protocol

	<i>EU-15</i>	<i>Austria</i>	<i>Belgium</i>	<i>Denmark</i>	<i>Finland</i>	<i>France</i>	<i>Germany</i>	<i>Greece</i>
Target	-8%	-13%	-7.5%	-21%	0%	0%	-21%	+25%
2005	-2.0%	+18.1%	-2.1%	-7.8%	-2.6%	-1.9%	-18.7%	+25.4%

	<i>Ireland</i>	<i>Italy</i>	<i>Luxem- bourg</i>	<i>Nether- lands</i>	<i>Portugal</i>	<i>Spain</i>	<i>Sweden</i>	<i>UK</i>
Target	+13%	-6.5%	-28%	-6%	+27%	+15%	+4%	-12.5%
2005	+25.4%	+12.1%	+0.4%	-1.1%	+40.4%	+52.3%	-7.4%	-15.7%

Table 2: Emission Reduction Commitments of NMS and CC under the Kyoto Protocol²

Country	Base year* Emissions**	KP target (%)	2005*** emissions**	change base year* – 2005*** (%)
Bulgaria	132.1	- 8%	69.8	- 47.2%
Croatia	31.1	- 5%	29.4	- 5.4%
Cyprus	6.0	None	9.9	+ 63.7%
Czech Republic	196.3	- 8%	145.6	- 25.8%
Estonia	43.0	- 8%	20.7	- 52.0%
Hungary	123.0	- 6%	80.5	- 34.5%
Latvia	25.9	- 8%	10.9	- 58.0%
Lithuania	48.1	- 8%	22.6	- 53.1%
Macedonia	13.5	None	12.5	- 7.9%
Malta	2.2	None	3.4	+ 54.8%
Poland	586.9	- 6%	399.0	- 32.0%
Romania	282.5	- 8%	153.7	- 45.6%
Slovakia	73.4	- 8%	48.7	- 33.6%
Slovenia	20.2	- 8%	20.3	+ 0.4%
Turkey	170.1	None	296.6	+ 74.4%

* Base year: 1988 for Bulgaria and Poland; average of 1985-1987 for Hungary; 1989 for Romania; 1986 for Slovenia; 1990 for the other countries.

** Million tons of carbon equivalent, excluding net emissions from Land Use, Land Use Change and Forestry (LULUCF).

*** For Croatia and Turkey: 2004 figures (latest figures available); for Macedonia: 2002 figure (latest figure available); for Malta: estimation based on gap filling.

¹ Data source: Annual European Community greenhouse gas inventory 1990-2005 and inventory report 2007, available at: http://reports.eea.europa.eu/technical_report_2007_7/en. The base year for the 'old' Member States is 1990, except for the base year 1995 chosen by some States for fluorinated gases.

² Sources: Croatia: National Inventory Report submitted in 2006; Macedonia: National Inventory Summary Report (2006); Turkey: First National Communication under the UNFCCC (2007); Other countries: Annual European Community greenhouse gas inventory 1990-2005 and inventory report 2007.

3.1.1 EU Climate Change Policies Following the European Council of March 2007

On the basis of the climate and energy package of the European Commission³ and the conclusions of the Council of Ministers (Environment) of 20 February 2007, the European Council adopted on 8/9 March 2007 far reaching conclusions on future EU climate and energy policies.⁴ The conclusions on climate and energy policies received unprecedented public attention and will shape European climate and energy policies for the years to come. The European Council adopted a wide range of climate and energy targets, the latter as part of a comprehensive Energy Action Plan for the period 2007-2009.

In more detail and subject to implementing legislation, the European Council adopted the following *climate and energy targets*:

- A **conditional EU target** of a 30% reduction in greenhouse gas emissions by 2020 compared to 1990. This target depends on the condition „that other developed countries commit themselves to comparable emission reductions and economically more advanced developing countries to contributing adequately according to their responsibilities and respective capabilities”.
- A **unilateral EU target** to cut greenhouse gases by at least 20 % by 2020 compared with 1990 levels. This target is binding and independent of the outcomes of international negotiations. The target will be achieved through Community policies and on an agreed burden-sharing arrangement, which will take into account „national circumstances and the relevant base years for the first commitment period of the Kyoto Protocol”. For further in-depth discussions on this burden sharing arrangement, the European Council invited the European Commission to immediately start – in close co-operation with Member States – a technical analysis of relevant criteria, such as socio-economic and other relevant parameters.
- Beyond 2020, developed countries should be aiming at collective cuts in emissions **of 60-80 % by 2050** compared to 1990 levels.
- A **binding target of a 20 % share of renewable energies** in overall EU energy consumption by 2020. From the overall renewables target, differentiated national overall targets will be derived with Member States' full involvement and “due regard to a fair and adequate allocation taking account of different national starting points and potentials, including the existing level of renewable energies and energy mix”. The European Commission will set out these national targets in proposals for a comprehensive Directive. These proposals are expected for late 2007 and will allow Member States to decide national targets for each sector of renewable energies (electricity, heating and cooling, biofuels).
- By 2020, all member states must achieve a **10 % minimum binding target for the share of biofuels** in overall EU transport fuel consumption. The binding character of this

³ http://ec.europa.eu/energy/energy_policy/documents_en.htm

⁴ http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/93135.pdf

target is subject to production being sustainable, second-generation biofuels being available, and successful amendments to the fuel quality Directive.

- A non-binding commitment to **reduce the EU's energy consumption by 20 %** compared to projections for 2020 through improvements in energy efficiency. To this end, the European Council invites the European Commission to submit proposals, among others, on increased energy efficiency on office and street lighting (to be adopted by 2008) and on incandescent lamps and other forms of lighting in private households (by 2009).

Concerning **international negotiations on further action**, the European Council stressed that these negotiations should “build upon and broaden the Kyoto Protocol architecture and should provide a fair and flexible framework for widest possible participation”. These negotiations should start at the end of 2007 and be completed by 2009. The European Council concluded that essential parts of an effective and appropriate framework beyond 2012 should include, inter alia,

- the development of a shared vision to reach the ultimate objective of the UN Framework Convention on Climate Change,
- the strengthening and extension of global carbon markets,
- the development, deployment and transfer of the necessary technology to reduce emissions,
- appropriate adaptation measures to deal with the effects of climate change,
- action on deforestation and
- addressing emissions from international aviation and maritime transportation.

On 29 June 2007, the European Commission published a **Green Paper on Adaptation** to climate change.⁵ The paper describes possible avenues for action at EU level and intends to kick-start a Europe-wide public debate and consultation process on adaptation.

4 International Negotiations and Processes on post-2012 Commitments

4.1 UN Framework Convention on Climate Change: Status of the international debate before COP 13

Since the Kyoto Protocol entered into force, the Parties to the UNFCCC have met twice, at COP 11 in Montreal in 2005 and at COP 12 in Nairobi in 2006. These sessions have also served as the first and second Meetings of the Parties to the Kyoto Protocol (COP/MOP 1

⁵ See http://ec.europa.eu/environment/climat/adaptation/index_en.htm

and COP/MOP 2). In Montreal, COP 11 and COP/MOP 1 established two parallel processes to assist negotiations on future commitments under both the Convention and the Protocol:

- **an Ad Hoc Working Group** to discuss commitments of Kyoto Protocol Parties beyond 2012⁶; and
- **a Dialogue on long term cooperative action** to address climate change by enhancing implementation of the Convention.

The **first Review of the Kyoto Protocol**, mandated by Protocol Article 9, took place at COP/MOP 2. The second review, which will take place in 2008 at COP/MOP 4, is another process that will feed into the shape of the post-2012 framework. COP 13 and COP/MOP 3 will take place in Nusa Dua, Bali (Indonesia), in December 2007. The above three strands will be advanced at these sessions.

4.1.1 Ad Hoc Working Group (AWG) on Article 3.9 of the Kyoto Protocol

The *Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG)* is tasked to complete its work in time to ensure that there is no gap between the first and second commitment periods. It was agreed by decision 1/CMP.1 that the AWG would meet four times, and report back to COP/MOP 2 and 3 on its progress.

At its **first meeting** in May 2006⁷, the AWG Chair proposed a list of topics for the group's further work, including: the scientific basis for determining the level of ambition of further commitments by Annex I Parties; emission trends; mitigation potential; and the architecture of further commitments for Annex I Parties. At its **second meeting**, in November 2006⁸, the AWG agreed that its work programme for the completion of its mandate would include: (1) analysis of mitigation potentials and ranges of emission reduction objectives of Annex I Parties; (2) analysis of possible means to achieve mitigation objectives; and (3) consideration of further commitments by Annex I Parties.

The **third session** of the AWG took place in May 2007⁹, and focused on an analysis of mitigation potentials and ranges of emission reduction objectives of Annex I Parties, drawing upon analysis and information from the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) and the outcomes of a roundtable discussion held during the session. The AWG's conclusions noted that the information received provided 'useful parameters' for the overall level of ambition of further emission reductions by Annex I Parties - in particular the information that, according to the scenarios of the IPCC reports, **global emissions of GHGs 'have to be reduced to very low levels, well below half of the levels in 2000 by the middle of the twenty-first century**, in order to stabilise concentrations of GHGs in the atmosphere at the lowest levels assessed by the IPCC to date in its scenarios.

⁶ Decision 1/CMP.1 (FCCC/KP/CMP/2005/8/Add.1)

⁷ See meeting report: FCCC/KP/AWG/2006/2

⁸ See meeting report: FCCC/KP/AWG/2006/4

⁹ See meeting report: FCCC/KP/AWG/2007/2

The AWG's conclusions further noted inputs made by some Parties, presenters and observers during the session, which highlighted, *inter alia*:¹⁰

- The urgency with which reductions in GHG emissions are needed.
- Mitigation efforts in the next few decades will determine the increase in global mean temperature until the end of the 21st century, and the climate change impacts that can be avoided.
- To limit temperature increase, GHG emissions need to peak in the next 10-15 years. This calls for GHG emission reduction commitments by Annex I Parties of between 25 and 40 percent below 1990 levels for the period beyond 2012.
- Annex I Parties have economic potential¹¹ for the mitigation of GHG emissions over the coming decades, which determines the contribution these Parties are able to make to stabilizing GHG concentrations in the atmosphere.
- The mitigation potential of policies, measures and technologies at the disposal of Annex I Parties can be further expanded through the use of the flexibility mechanisms and sinks.

AWG 3 invited Parties to submit information and data on the mitigation potential of policies, measures and technologies at their disposal, with a view to providing a basis for indicative ranges of emission reduction objectives by Annex I Parties. The AWG also requested the secretariat to prepare a **technical paper** that synthesized these submissions as well as available information, *inter alia*, on factors and criteria relevant to the determination of the mitigation potential and to the identification of possible ranges of emission reduction objectives of Annex I Parties. The Secretariat's paper came out as **FCCC/TP/2007/1**.¹²

The **fourth session** of the AWG began in Vienna in August 2007 and will resume in Bali in December 2007. It initiated discussion of the mitigation potential of Annex I Parties and an analysis of the identification of possible ranges of emissions reductions by Annex I Parties. The AWG's conclusions from this session noted that:

- Global emissions of GHGs need to peak in next 10-15 years and be reduced to very low levels, 'well below half of 2000 levels' by middle of the twenty-first century to stabilize concentrations at the lowest levels assessed by the IPCC to date.
- To achieve the lowest stabilization level assessed by the IPCC to date (~450 ppm) would require Annex I Parties as a group to reduce emissions in a range of 25-40% below 1990 levels by 2020.

¹⁰ See meeting report: FCCC/KP/AWG/2007/4.

¹¹ See id, noting that "economic potential" takes into account social costs and benefits, and social discount rates, and assumes that market efficiency is improved by policies and measures and barriers are removed.

¹² Synthesis of information relevant to the determination of the mitigation potential to the identification of possible ranges of emission reduction objectives of Annex I Parties.

- The IPCC ranges do not take into account lifestyle changes that have the potential to increase these ranges.
- Greater mitigation potential available through wider use of the flexible mechanisms.
- Concerns raised by small island States and some developing country with regard to the lack of analysis of stabilization scenarios below 450 ppm CO₂-eq., which corresponds to the lowest stabilization range assessed to date, and the need for further scientific work in this regard.

AWG 4, part II will resume in Bali, and will continue to address an analysis of the mitigation potential of policies, measures and technologies at the disposal of Annex I Parties, and the identification of possible ranges of emission reductions by Annex I Parties and their contribution to the ultimate objective of the Convention. **AWG 5** will then meet in June 2008 to analyze possible means to achieve these mitigation objectives.

Timeframe for AWG decision making. AWG 4 has called for views from Parties by 9 November 2007 on a timetable for the completion of the AWG's work. To date, only the G-77 and China has made a submission. The G77 and China has proposed that the resumed AWG 4 session in December 2007 be used to establish a full range of indicative commitment levels for Annex I Parties to realise the maximum emission reduction potentials identified. AWG 5 in May 2008 would outline and analyse the means, tools, technologies, policies and measures to achieve these potential commitments. AWG 6 in December 2008 would set Annex I Party reduction commitments for the 2nd commitment period, and adopt amendments needed to Annex B. AWG 7 in May 2009 would then adopt a revised Annex B and related amendments, which would subsequently be adopted at COP/MOP 4, to be held in Denmark in December 2009.

4.1.2 Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention

In Montreal, by decision 1/CP.11, Parties to the Convention also agreed to begin a “*dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention*”. This process is meant to engage non-Kyoto Parties and developing country Parties in discussions on future actions. It was agreed that the Dialogue would be held in four workshops, and would allow Parties to exchange experiences and analyse strategic approaches for long-term cooperative action in four thematic areas:

- advancing development goals in a sustainable way;
- addressing action on adaptation;
- realising the full potential of technology; and
- realising the full potential of market-based opportunities.

The Dialogue was intended to serve as a forum to identify:

- actions to promote research, development and deployment of cleaner technologies;

- ways to support voluntary actions by developing countries; and
- ways to promote access by developing countries to climate-friendly technologies and to technologies for adaptation.

The **first workshop** of the Dialogue took place in May 2006 in Bonn. Parties and observer organisations had an initial discussion on all four thematic areas. The **second workshop** in the sequence was held in November 2006, in Nairobi, and focused on concrete actions under the first and fourth thematic areas (sustainable development and market-based opportunities).¹³ The **third workshop** was held in May 2007 and focused on concrete actions on the remaining two Dialogue themes (addressing action on adaptation and realising the full potential of technology).

The **fourth and final scheduled Dialogue workshop** aimed to bring together the ideas and proposals put forward during earlier sessions of the Dialogue, explore how they fit together in a coherent way and into an appropriate international response to climate change, and address overarching and cross-cutting issues, including financing. Parties were invited to submit **working papers** considering how each of the 4 themes could be considered in an integrated manner, and **guidance** as to what should be in the **final report** of the Dialogue. Many Parties made submissions, including the European Community. A key input for the August session was the Secretariat's '**Report on the analysis of existing and potential investment and financial flows relevant to the development of an effective and appropriate international response to climate change**', which was produced as Dialogue Working Paper 8. The EU submitted two working papers,¹⁴ one that focused on the process to be agreed at COP 13 in Bali, and a second that highlighted building blocks needed to deliver a global and comprehensive post-2012 framework under the UNFCCC. These building blocks included:

- The development of a shared vision to reach the ultimate objective of the Convention
- Agreement on deeper absolute emission reduction commitments by all developed countries
- Facilitating further fair and effective contributions from other countries
- The strengthening of the global carbon markets
- The development, deployment and transfer of the necessary technology to reduce emissions
- Appropriate adaptation measures to deal with the effects of climate change
- Addressing emissions from international aviation and maritime transportation.
- Action to address deforestation

¹³ Oral Report at COP 12 by the co-facilitators (Ms. Sandea de Wet and Mr. Howard Bamsey).

¹⁴ Dialogue Working Paper 10 (16 August 2007) and Working Paper 16 (30 August 2007).

The Dialogue will report back to COP 13 in December 2007 on the information and diversity of views presented by the Parties. COP 13 will agree on a way to take forward the results of the Dialogue process. These discussions will likely center on the level of formality with which these discussions will proceed - whether as a formal negotiating process or something less formal. The EU seeks the initiation of a comprehensive negotiating process in Bali, that weaves together the AWG and Dialogue strands toward a global post-2012 agreement.¹⁵

4.1.3 Article 9 Review of the Kyoto Protocol

Article 9 of the Kyoto Protocol provides that the COP/MOP shall periodically review the Protocol "in light of the best available scientific information and assessments on climate change and its impacts, as well as relevant technical, social and economic information." The Article 9 review under the Protocol is to be coordinated with reviews under the Convention, including those on the adequacy of commitments for all developed country Parties under Articles 4.2(a) and (b). The Protocol expressly provides for a first review at COP/MOP 2.

The **first Article 9 Review** was completed at COP/MOP 2 in Nairobi, in 2006. In undertaking the review, the Parties noted that the Protocol has fostered cooperative action, including through the CDM, but also acknowledged that a number of elements of the Protocol, including adaptation, could be further elaborated upon and that the implementation of the Protocol could be further enhanced.¹⁶ The Parties decided that the **second Article 9 review** of the Kyoto Protocol under Article 9 will take place at COP/MOP 4 in 2008. The scope and content of the second review will be considered at COP/MOP 3 in Bali. Parties were invited to submit their views on these issues, and on the preparations required for conducting the review, by 17 August 2007.

The Article 9 review is linked politically and substantively to discussions under Kyoto Protocol Article 3.9 and discussions within the Convention's Dialogue on long-term cooperative action.

4.2 G 8: Heiligendamm Summit and Gleneagles Dialogue

Leaders of the G8 group of industrialised countries met at a Summit in Heiligendamm, Germany, on 7-8 June 2007 to address 'Growth and Responsibility in the World Economy'. In this context, one central topic was 'Climate change, energy efficiency and energy security'. Leaders took note of the IPCC's Fourth Assessment Report, and its conclusions that global temperatures are rising, that this is caused largely by human activities, and that major changes in ecosystem structure are projected with predominantly negative consequences for biodiversity and ecosystems, including on water and food supply. Leaders agreed that global GHG emissions must stop rising, and be followed by substantial global emission reductions. The Heiligendamm summit states that the G8 countries "**will consider seriously the decisions made by the EU, Canada and Japan which include at least a halving of global emissions by 2050**". All major emitters must take "strong and early action" to prevent dangerous global warming. The Summit acknowledged the continuing leadership role of

¹⁵ Dialogue Working Paper 10 (16 August 2007).

¹⁶ FCCC/KP/CMP/2006/10/Add.1, decision 7/CMP.2

developed economies in future climate change efforts. The Summit agreed that major emitters should decide the outlines of a deal by the end of 2008, leading to a full global agreement under the UNFCCC by 2009.

G8 leaders, including US President Bush, acknowledged that the ***UN climate process is the appropriate forum for negotiating future global action on climate change***. Leaders agreed that negotiations on such a framework for the post-2012 period that includes all major emitters should start at COP/MOP 3 in Bali in December 2007. To assist this process, G8 leaders initiated a “Heiligendamm Process” with major emerging economies – a High Level Dialogue between G8 Member Countries and Brazil, China, India, Mexico and South Africa. The OECD will provide a platform for this dialogue process which was scheduled to begin in the second half of 2007. A progress report will be presented at the 2008 G8 Summit in Japan; a final report on the results of the dialogue will be put forward at the G8 Summit in Italy in 2009. The dialogue process will also “support the UN climate process and report back to the UNFCCC”.

The ***Gleneagles Dialogue*** was launched in November 2005, engaging the energy and environment ministers from the G8 states including the EU Commission, along with China, India, South Africa, Brazil, Mexico, Australia, Indonesia, Nigeria, Poland, Spain and South Korea. The Dialogue has allowed for continued, more informal, discussions of the issues around climate change and measures to tackle it, and has helped create the condition for more constructive negotiations within the United Nations framework. After a series of meetings, the results of the Gleneagles Dialogue will be reported at the 2008 G8 Summit under the Japanese presidency.

4.3 2007 APEC Summit

On 9 September 2007, the Summit of the Asia-Pacific Economic Cooperation (APEC) adopted the Sydney ***APEC Leaders’ Declaration on Climate Change, Energy Security and Clean Development***.¹⁷ In this declaration, APEC leaders underlined their commitment to the global objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human interference with the climate system. Leaders agreed that the world needs to slow, stop and then reverse the growth of global greenhouse gas emissions. Therefore, APEC leaders called for a post-2012 international climate change arrangement that strengthens, broadens and deepens the current arrangements and leads to reduced global emissions of greenhouse gases. Such arrangement should contain elements of flexibility, technology, sustainable forest management and land use practices, open trade and support for effective adaptation strategies. APEC economies that are Parties to the UNFCCC agreed to work actively and constructively toward a comprehensive post-2012

¹⁷ The 21 APEC Member Economies are Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; The Republic of the Philippines; The Russian Federation; Singapore; Chinese Taipei; Thailand; United States and Viet Nam.

arrangement, and APEC leaders appreciate the efforts of Japan and Canada in proposing the long-term global goal of halving emissions by 2050.

4.4 US “Meeting of Major Economies” Initiative

On 27-28 September 2007, the United States convened a *meeting of 17 major economies* to “seek agreement on the process by which the major economies would, by the end of 2008, agree upon a post-2012 framework that could include a long-term global goal, nationally defined mid-term goals and strategies, and sector-based approaches for improving energy security and reducing greenhouse gas emissions”.¹⁸ The meeting was also intended to place special emphasis on how major economies can, in close cooperation with the private sector, accelerate the development and deployment of clean technologies. A series of additional meetings throughout 2008 is scheduled to further refine the discussions.

At the meeting, President Bush called on participants to agree “a long-term goal” to cut emissions by mid-2008 and highlighted *the US position of an aspirational and non-binding emission reduction goal*. He said that a future regime should be based on mandatory national legislation, allow countries a wide choice of tools and should not provide for an international compliance regime. In the discussions, *no country supported this blueprint*. Participating countries indicated their strong preference for an internationally binding agreement on emission reduction for developed countries and the Kyoto mechanisms. Developing countries underlined the position that mitigation and adaptation should be discussed at an equal footing when negotiating a future regime. According to the *chair’s summary*¹⁹, speakers raised a range of considerations for the development of a long-term goal, including:

- It should be guided by Article 2 of the UNFCCC²⁰;
- It should be underpinned by environmentally effective and measurable near- and mid-term actions;
- It should reflect the overall global vision of ambition and an understanding of the scale of action that would be required to achieve it;
- It should take into account countries’ differing circumstances and common but differentiated responsibilities and respective capabilities;
- It should take into account the costs of adaptation in addition to mitigation, in the context of broader sustainable development strategies.
- It should take into account historical cumulative emissions, per capita emissions, and development needs of developing countries.

¹⁸ <http://www.whitehouse.gov/news/releases/2007/08/20070803-7.html>

¹⁹ <http://www.state.gov/g/oes/climate/mem/93021.htm>

²⁰ Article 2 sets out the “ultimate objective” of the Convention, which is to stabilise “greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.

4.5 UN High Level Event and Security Council

Based on wide consultations with Member States, the Secretary-General convened a **high level event** in New York on 24 September 2007 to galvanise political will for the Bali Conference. According to the Chairman's summary, countries underlined at the meeting the importance of **adaptation** and called for increased funding through mechanisms such as the Adaptation Fund, which should become operational as quickly as possible and which needs to be supplementary to already committed funds. Concerning **mitigation**, many countries called for legally binding targets, made reference to the need to halve emissions by 2050 and to limit temperature increase to 2°C. Regarding the **negotiations on a future regime**, the meeting's chair noted that the Bali Conference "should be the starting point for intense negotiations driven by an agreed agenda. These negotiations should be comprehensive and inclusive, and should lead to a single multilateral framework. All other processes or initiatives should be compatible with the UNFCCC process and should feed into it, facilitating its successful conclusion."²¹

On 17 April 2007, the **UN Security Council** held its first-ever open debate on climate change, exploring the relationship between energy, security and climate. The discussion focused on the security implications of climate changes, including their impact on potential drivers of conflict, such as access to energy, water, food and other scarce resources; population movements; and border disputes. Although delegations made only limited reference to the on-going post 2012 negotiations under the UNFCCC and some delegations questioned the Council's mandate to discuss climate change, the deliberations have provided additional momentum to the process by highlighting the security implications of climate change.

²¹ <http://www.un.org/climatechange/2007highlevel/summary.shtml>