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The development of climate negotiations in view of Cancun (COP 16)

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The development of climate negotiations in view of Cancun (COP 16)

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POLICY DEPARTMENT A : ECONOMIC AND SCIENTIFIC POLICY

ENVIRONMENT, PUBLIC HEALTH AND FOOD SAFETY

The development of climate negotiations in view of Cancun (COP 16)

STUDY

Abstract

This report provides an overview of the development of the negotiations within the UNFCCC since COP 15 in Copenhagen. It summarises the key developments in 2010 and provides short overviews for all negotiation areas. The overview also includes a state of play of the Copenhagen Accord and explains the position of the main Parties and negotiation groups. It is supplemented by short overviews for individual countries and stakeholder groups.

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LIST OF ABBREVIATIONS

AAU	Assigned Amount Unit
ALBA	Bolivarian Alliance for the Peoples of our Americas
AOSIS	Alliance of Small Island States
AWG-KP	Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol
AWG-LCA	Ad Hoc Working Group on Long-term Coopera-tive Action under the Convention
BAP	Bali Action Plan
CA	Copenhagen Accord
CCS	Carbon capture and storage
CDM	Clean Development Mechanism
CER	Certified emissions reductions
CFU	Carbon Finance Unit (World Bank)
COP	Conference of the Parties
COPMOP	Conference of the Parties serving as the meeting of the Parties
CTCN	Climate Technology Centre and Network
EC	European Commission
EU	European Union
EU ETS	European Union Emissions Trading Scheme
FAA	Framework for Action on Adaptation
G-77	Group of 77
GCAP	Global Climate Adaptation Partnership
GCCA	Global Climate Change Alliance

GDP	Gross domestic product
GEF	Global Environmental Facility
GHG	Greenhouse gas
Gt	Giga tonnes
GW	Giga watt
HFC	Hydrofluorocarbons
ICA	International consultation and analysis
ICAO	International Civil Aviation Organization
IEA	International Energy Agency
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
IPR	Intellectual property rights
IRENA	International Renewable Energy Agency
JI	Joint Implementation
LDC	Least Developed Country
LULUCF	Land Use, Land Use Change and Forestry
MRV	Measurement, Reporting and Verificaton
NAMA	Nationally Appropriate Mitigation Action
NAPA	National Adaptation Plans of Action
NDRC	National Development and Reform Commission (China)
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of Petroleum Exporting Countries
RD&D	Research, development and deployment
REDD	Reducing emissions from deforestation and degradation

REEEP	Renewable Energy & Energy Efficiency Partnership
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SIDS	Small island developing state
t	Tonne
TEC	Technology Executive Committee
TM	Technology Mechanism
UNFCCC	United Nations Framework Convention on Climate Change

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EXECUTIVE SUMMARY

Potential Cancun outcome: All Parties aim at a "balanced package of decisions" in Cancun, however they considerably diverge regarding the content of such a balanced package. It is no longer expected that some type of legally binding outcome will be achieved in Cancun as was hoped before Copenhagen. Expectations for Cancun are that the package of decisions will outline a process that generates a legally binding outcome in parallel to an agreement on the continuation of the Kyoto Protocol (or a similar agreement within an overarching agreement).

Important elements for a package from the perspective of the EU include the following elements:

(a) the balance between decisions related to the continuation of the Kyoto Protocol and a further legally binding outcome under AWG-LCA for mitigation for the USA and for key emerging countries;
(b) decisions that formalise the mitigation pledges of Annex I and Non-Annex I Parties in the official negotiation process;
(c) decisions on the elements of MRV for developing countries outlined in the CA, e.g. related to the frequency of reporting on mitigation action and related to international consultation and analysis of the reports of Non-Annex I Parties;
(d) decisions related to the accounting of emission reductions for Annex I Parties at international level, e.g. common rules related to market mechanism and the use of sinks;
(e) fixation of the 2°C target as overall objective;
(f) the implementation of a review process in which the overall ambition of mitigation action will be assessed; and
(g) decisions related to the key negotiation areas such as financial support, technology, REDD+ and adaptation.

Some elements of the negotiations are further developed in terms of an agreed negotiation text than others. These areas are REDD, technology, finance and adaptation. Other areas, in particular mitigation targets and action for developed and developing countries as well as monitoring, reporting and verification (MRV) of emission reductions, are much less developed. This creates that risk that Cancun may result in an unbalanced outcome.

The outcome strongly depends on the willingness of the USA as well as China and other emerging countries to commit to mitigation action in a legally binding international form. The EU plays a minor role in the ultimate success in Cancun and can only contribute to the success in a limited way. However, the EU's position in relation to the continuation of the Kyoto Protocol will be important for a successful outcome in Cancun.

Mitigation of greenhouse gas emissions: The pledges submitted under the Copenhagen Accord will not be able to achieve the objective to limit global warming to below 2°C. To achieve this objective, a global peaking of GHG emissions before 2020 would be necessary. So far, the aggregate reductions by Annex I countries would lead to emissions levels of about -12 to -18 percent below 1990 levels; depending on the rules for surplus allowances from the first Kyoto period and the accounting of LULUCF activities the reduction could drop to a meagre -1 to –7 percent below 1990 levels in 2020. Non-Annex I countries intend to reduce their aggregate emissions by 11 percent below business as usual projections for 2020.

Monitoring, reporting and verification: For developed countries under the Kyoto Protocol, MRV provisions are not expected to change substantially, but developing countries want to enhance MRV for financial support and link the provision of finance with compliance. The EU and other Kyoto Parties aim at similar MRV provisions for the USA as for other industrial countries under the Kyoto Protocol which is related to accounting issues as well as to the review of the information.
For developing countries, Annex I Parties aim at regular reporting on their GHG emissions and removals as well as on mitigation efforts and that this information is subject to an international analysis of experts. Currently, key emitters from developing countries do not need to regularly submit GHG inventories and the reports are not reviewed or subject to any other international process. Key developing countries oppose regular reports and in particular any international review of the information provided.

Fast-start finance: The provision of USD 30 billion fast-start finance for the period 2010 to 2012 in the Copenhagen Accord is seen as a crucial trust-building activity. Although most countries are expected to meet their pledges much of the money will not come from new and additional sources or will be supplied in the form of loans. Developing countries intend to formalise the fast-start commitment through a COP decision. The EU is expecting to fully deliver the EUR 7.2 billion promised in Copenhagen.

LULUCF: The negotiation text has been significantly advanced in 2010, but still contains different options related to the major accounting provisions where the EU supports using reference emission levels based on projections against which emissions and removals from LULUCF activities would be accounted in the future. The discussions on the accounting of LULUCF is strongly linked with the decisions related to a 2^{nd} commitment period of the Kyoto Protocol. If such agreement is not achieved, it is unlikely that a decision on LULUCF accounting can be adopted.

REDD: The overall objective is the establishment of a REDD+ mechanism as foreseen in the Copenhagen Accord and to agree on the first phase of such mechanism. An agreement should ensure environmental safeguards which include the protection of the interests of indigenous peoples and local communities and the preservation of biodiversity, ecosystem services and social co-benefits and address these safeguards in the monitoring provisions.

Flexible Mechanisms: Putting a price on carbon through the use of market mechanisms is imperative to drive low carbon investment and reduce global emissions cost-effectively. An expanded international carbon market could generate up to €38 billion a year in additional financial flows to developing countries by 2020 (EC estimate) and could be one of the main sources of mitigation finance for developing countries post-2012. The EU proposes to enhance the global carbon market by establishing sectoral mechanisms to promote greater emissions mitigation, in particular by advanced developing countries and as a prerequisite for agreeing to ambitious targets be developed countries. In addition, the CDM and JI need to be reformed to strengthen their effectiveness and environmental integrity and to increase the participation of LDCs.

Bunker Fuels: Despite the general consensus to work through ICAO and IMO to reduce emissions from international aviation and maritime transport it is unlikely that Parties at COP 16 will be able to advance the negotiations. The main obstacle is the question whether all Parties or only industrialised countries should reduce emissions from these sectors.
The EU is in favour of a global sectoral approach where developing countries would receive financial incentives in exchange for full participation in the measures.

Technology and technology transfer: A legally binding agreement needs to establish the right conditions for international cooperation on technology across the full cycle, from research and development to diffusion and transfer. Parties should agree to establish a technology mechanism to support development and transfer of technology. Developing countries should set out the support they need for technology development and deployment in their low carbon development strategies.

Adaptation: Adaptation to climate change is an essential complement to mitigating GHG emissions. Increased financial support for adaptation, particularly in the most vulnerable developing countries, is needed both for a 'fast start' and beyond 2012. A legally binding agreement should foster the UNFCCC's role as a catalyst in mobilising adaptation action by all Parties and relevant organisations. To achieve progress in Cancun on adaptation, an agreement on institutions which are compatible with the requirements of the Bali Action Plan (BAP) will be a key issue.

Capacity building: Due to the cross cutting nature of capacity building it needs to be integrated in many institutions rather than establishing a new institution dedicated to capacity building. Impact of capacity building cannot be captured by global performance indicators since it needs to be specifically tailored to the needs of each developing country. Just to ensure consistence of negotiations detailed discussions on how to finance capacity building should be avoided.

1. GENERAL ISSUES IN CLIMATE NEGOTIATIONS BETWEEN COPENHAGEN AND CANCUN

1.1. Introduction

The aim of this study is to prepare participants and other interested persons for the upcoming UNFCCC Conference of the Parties (COP 16) in Cancun, Mexico, from 29 November to 10 December 2010. In addition, it can be used as a reference document for individual topics which might come up during meetings, discussions or other documents related to the climate process. It has been commissioned by the European Parliament's Committee on Environment, Public Health and Food Safety and prepared by Öko-Institut e.V.

Chapter 1 of the study gives an overview on the negotiation situation in 2010, starting with the results from the previous COP in Copenhagen and looking at the progress made in the four negotiation sessions during 2010 prior to Cancun. Chapter 2 addresses the main issues in the negotiations which are mitigation commitments, monitoring, reporting and verification, finance, deforestation, land-use, land-use change and forestry, flexible mechanisms, emissions from international transport, technology transfer, adaptation and capacity building. The third chapter introduces the main negotiating Parties outside apart from the EU and gives an overview over their positions. Chapters 4 and 5 deal with key negotiation groups and stakeholders. The last chapter provides explanations of terms used in the climate negotiations which are not self-explanatory (in addition to the list of abbreviations).

1.2. Main outcomes of COP 15

The Copenhagen Accord (Copenhagen Accord 2009) includes the following political agreement:

- Recognition of the objective to limit global temperature increase to below 2°C;
- A review of the Accord to be completed by 2015, with a reference to strengthening the long-term goal to remain below 1.5°C global temperature increase;
- Developed countries committed to implementing quantified economy-wide emissions targets for 2020, which were submitted by 31 January 2010 to the UNFCCC;
- Developing countries committed to "implementing mitigation actions", including those that were submitted to the secretariat by 31 January 2010;
- For measurement/monitoring, reporting and verification (MRV) of Annex I Parties, it was agreed that the "delivery of reductions and financing by developed countries will be measured, reported and verified in accordance with existing and any further guidelines adopted by the COP, and will ensure that accounting of such targets and finance is rigorous, robust and transparent."
- For MRV of Non-Annex I Parties, it was agreed that every two years there would be a communication of mitigation action and national inventory reports by developing countries as part of national communications based on guidelines to be developed. Mitigation action in developing countries that received financial support of developed countries will be subject to international measurement, reporting and verification in accordance with guidelines adopted by the COP and will be recorded in a registry along with relevant technology, finance and capacity building support.

Reported information on the implementation of mitigation action in national communications will include "provisions for international consultations and analysis under clearly defined guidelines."

- Provision of finance, including fast-start finance (US$ 30 billion) for 2010-2012 and long-term finance (US$ 100 billion per year from 2013 to 2020). The establishment of a High Level Panel "to study the contribution of the potential sources of revenue", of a Copenhagen Green Climate Fund through which a "significant portion of funding should flow" under the Convention as well as new multilateral funding arrangements for adaptation with equal representation of developed and developing countries;
- Establishment of a mechanism for reducing emissions from deforestation and forest degradation and other uses to enable the mobilisation of financial resources from developed countries.
- The establishment of a Technology Mechanism.

The key shortfalls and weaknesses are the following:

- The agreement does not foresee a legally binding agreement, but a system of pledges of domestic emission reduction targets presented at international level. The decision did not include a mandate to develop a legally binding agreement in a defined period.
- The agreement does not include a reference to long-term global emission reduction targets of at least 50% until 2050 compared to 1990 and of 80% reduction in developed countries. It also no longer specifies when global emissions should peak (2015 in draft texts).
- To achieve the 2°C target, an emission reduction of 25-40% by developed countries is necessary. The pledges for emission reductions by developed countries proposed in and before Copenhagen leave a considerable gap to the necessary emission reductions.
- The mitigation targets to be submitted are entirely based on domestic decisions and there is no common framework for the accounting of these emissions reductions, e.g. no common base year, no common scope of emissions from sources and removals from sinks (e.g. whether emissions from aviation and maritime are covered, whether and how sinks are accounted or how credits from project activities are used). The Accord specifies that the accounting of targets and finance should be rigorous, robust and transparent, but this does not necessarily imply that countries have to apply common rules on what they are accounting.
- The CA contains very weak language in relation to the establishment of new market mechanism and only acknowledges that Parties pursue various approaches "including opportunities to use markets".

1.3. Negotiation process in 2010

Parties agreed in Tianjin that the conference in Cancun should agree on a set of decisions. However, views on the elements of such a package remained divergent. A number of developing countries refused to engage in negotiations on elements of the Cancun package that are of key interest to developed countries, in particular on mitigation and the measurement, reporting and verification (MRV) of actions.

The progress made on issues of importance to developed countries such as adaptation, finance, technology has been much faster than on the issues of mitigation action and MRV in developing countries where many Non-Annex I Parties refused to start discussions on specific text. Therefore how balanced the package of decisions may be remains a concern, and agreeing on a balanced set of decisions will be a challenge in Cancun. A “minimalist” outcome in Cancun risks moving away from a balanced package to a "picking and choosing" of specific elements from the Copenhagen Accord.

The Copenhagen Accord was ultimately not adopted by the COP, but rather rejected by a small number of Parties, including Tuvalu (for lack of ambition), Venezuela, Nicaragua, Bolivia and Cuba (for lack of participation in the process). These Parties continued to reject the text during the course of 2010. However, in 2010 ALBA countries have acted less as a unified group than in Copenhagen; Venezuela was more constructive while Ecuador and Bolivia kept strong opposition against the Accord.

Also Parties that officially agreed with the Copenhagen Accord rejected key elements agreed in the Accord during the negotiation process in 2010, in particular those relating to the mitigation action and MRV of developing countries, e.g. China, India and Brazil. This opposition is strongly linked with the willingness of the USA to accept a legally binding agreement with emission reductions.

The USA is still pursuing the 17% emission reduction pledged at the beginning of the year. However with the recent elections, it will be very difficult to achieve such a reduction which is not seen as ambitious. Without the USA, key emerging countries like China, India and Brazil will not move towards the inscription of their own emission reductions in an international agreement.

Although pressure on developed countries to accept a 2nd commitment period under the Kyoto Protocol remained high, there is a growing realism that the Cancun outcome under the KP will not be able to finalise an agreement on the 2nd commitment period of the Kyoto Protocol. Japan and the Russian Federation clearly oppose a 2nd commitment period under the Kyoto Protocol.

In 2010, the African group continues to demand very strong mitigation action from Annex I Parties (1,5°C target, legally binding agreement in Cancun).

South Africa plays an active role in finding compromises between African countries, G-77 and Annex I Parties. AOSIS is also trying to be constructive and find compromises; it wants to have a clear decision on legally binding agreement in Cancun. The “Cartagena Dialogue for Progressive Action” [1] provides a platform for those countries with more ambitious objectives for the negotiations. A rather large number of developing countries joined this platform such as Latin American countries (e.g. Costa Rica, Colombia, Mexico, Peru) but also African countries (e.g. Ethiopia, Ghana, Tanzania, Malawi) and Asian countries (Bangladesh, Indonesia, Thailand) that met several times in different working groups before the COP to discuss draft decisions and a strategy to achieve an agreement in Cancun.

[1] Antigua and Barbuda, Australia, Bangladesh, Belgium, Colombia, Costa Rica, Ethiopia, France, Germany, Ghana, Indonesia, Malawi, Maldives, Marshall Islands, Mexico, Netherlands, Norway, New Zealand, Norway, Peru, Samoa, Tanzania, Thailand, Timor Leste, United Kingdom, Uruguay, and European Commission.

1.4. The impact of other relevant international developments on the negotiation process

In the negotiations for a post-2012 mitigation system it became evident that developing and emerging countries play a stronger and more self-confident role in global politics. The Copenhagen Conference has been used to demonstrate the change in global economic and geo-political power. This will make the achievement of an international agreement more difficult than in the past. BASIC countries and in particular China gained considerable influence in the negotiations. This is also due to the strongly growing importance of Chinese investments in African and Asian countries.

The economic crisis has had different effects. On the one hand it reduced actual emissions in 2008 and 2009 and Annex I Parties appear to be closer to their Kyoto targets. On the other hand the public budgets of Annex I Parties are extremely stretched and Annex I Parties can no longer make very generous offers of financial support. With the fast recovery from the economic crisis of emerging and developing countries and the continued economic problems in Annex I Parties like the USA and the EU, ambitious mitigation commitments without some type of mitigation action from emerging countries are difficult to sell to voters in industrial countries.

The outcome in Cancun strongly depends on the willingness of the USA as well as China and other emerging countries to commit to mitigation action in a legally binding international form. As a result the EU plays a minor role for the ultimate success in Cancun and can contribute to the success in a somewhat limited way. The EU's contributions and commitments are well known and not called into question, but the EU has limited power in influencing the positions of the USA, China, India or Brazil or the Russian Federation.

Taking into account the results of the US mid term elections in early November, which to some extent also mark the failure of domestic climate legislation, the USA's willingness seems to be now even lower than before Copenhagen. Even if the Obama Administration would – now together with the Republicans – find new ways to curb domestic GHG emissions, this process could delay the USA's readiness for a legally binding agreement for several years.

One of the new developments in Copenhagen was that ALBA countries fiercely blocked what was a rather general agreement by all other Parties. This opposition is not strictly related to individual issues in the negotiations, but to a more general opposition against the USA and capitalist countries and their economic systems. It is more difficult to find common ground with several Parties or Party groups who are not strongly interested in a successful outcome. Also with regard to ALBA countries, the influence of the EU is limited and it is more likely that the COP presidency or the progressive Latin American countries can contribute to ALBA countries adopting a more constructive position.

The UN climate change process was severely damaged by the failure in Copenhagen, which has called into question the capability of the UN to deliver a robust international climate agreement on global emission reductions. In contrast to earlier failures like COP 6 in The Hague, this time there is a much more doubt as to whether continued negotiations in 2010 will be able to deliver an agreement in Cancun or beyond. With the failure of the negotiations in Copenhagen, the general multilateral process in a changed global situation is also called into question.

Thus, the Cancun conference can also be seen as important in terms of showing that multilateralism still works and is able to produce results (in particular in a situation where there are no successful alternative processes).

1.5. Legal nature of future international agreement

The Bali Action plan does not specify the legal nature of the output of the work process under AWG-KP and AWG-LCA. Consequently a significant amount of time was spent in the negotiations on the type of legal outcome. The different views as to whether there should be one overarching new agreement or a mostly unchanged continuation of the Kyoto Protocol resulted in a major obstacle for agreement in many areas during the past three years. This situation has not been resolved and continued during 2010. However, Parties were more open to discussing substantive issues at least in some areas and the legal issues were less strongly emphasised in 2010.

The EU decided to continue pursuing the objective of a single legally binding agreement for the negotiation process towards COP16 in Mexico and to integrate the Protocol into such agreement. This one legally binding agreement would include developing countries, the US as well as Kyoto Parties. The Kyoto Protocol would not continue, but would be part of this one overarching agreement. Meanwhile the EU is stressing the need for a balanced outcome between the outcomes of AWG-KP and AWG-LCA in Cancun as it is expected that a legally binding agreement cannot yet be achieved at COP 16.

Developing countries do not have a common position regarding to the legal nature of the outcome. Many developing countries supported an overarching legally binding agreement. China does not want its mitigation actions to be covered under a legally binding agreement. Brazil has recently shown more flexibility with regard to a global agreement covering developing and developed Parties.

Developing countries, in particular China, Brazil and India, will only enter a global agreement if the US agrees to be part of a legally binding agreement with a sufficiently ambitious emission reduction target. The USA has made it very clear that they will not ratify the Kyoto Protocol in the future.

The USA favours a pledge- and review system as included in the Copenhagen Accord.
The question of whether a second commitment period for the Kyoto Protocol will be agreed is key for many developing countries before they accept any demands on their side. At the sessions in 2010 the question of whether the Kyoto Protocol would be continued was left open, and the pressure from developing countries on Annex I Parties to agree to a 2nd commitment period has increased further. For many Annex I Parties it is politically extremely difficult to agree to a second commitment period, when the USA is refusing to be part of such commitment.

The negotiation session in Tianjin did see growing support for pursuing a legally binding agreement under the Convention track, but only after Cancun. The key exception remains China, supported by India, who continues to oppose the inclusion of their mitigation actions in an international treaty and insist that a set of decisions also constitutes a "legally binding outcome". Brazil reconfirmed its support for a simple set of decisions rather than for detailed and ambitious decisions, but with a plan for the work to be done after Cancun.
At the last negotiation session in Tianjin Parties discussed the new concept of "anchoring Parties' pledges" in the Cancun outcome.

This idea, supported by the EU, AOSIS and proactive Latino-American countries, gained some momentum. It would see Cancun taking note of pledges made so far by developed and developing countries, but presenting them as insufficient to reach the objective of staying below 2°C, and therefore initiating a process to clarify and strengthen these pledges.

The Cartagena Group[1] (see section 1.3) also supported the idea of an interim step in Cancun that would formalise the objective of adopting a legally-binding outcome under the AWG-LCA as soon as possible. While South Africa was already supporting this idea, the concept gained broader support from G-77 in Tianjin.

2. INDIVIDUAL TOPICS IN CLIMATE NEGOTIATIONS

2.1. Mitigation of greenhouse gas emissions

The Copenhagen Accord sets a goal of limiting average global surface warming to below 2°C. Since Copenhagen, many Parties including most major emitters submitted national emission reduction pledges for 2020 in order to begin achieving this goal.

2.1.1. Necessary emission reductions

To ensure a likely (>66%) chance of achieving the common goal of limiting global warming to less than 2°C above pre-industrial temperatures (Belgium 2010):

- A peak in global GHG emissions is required by approximately 2015. The later the peak occurs, the steeper the decline in emissions would need to be in the subsequent decades.
- A decrease in global emissions of 50-70% relative to 1990 levels is necessary by 2050.
- Reductions of long-lived greenhouse gases, such as carbon dioxide are essential. In addition reductions of the short-lived greenhouse gases, black carbon aerosol, tropospheric ozone, and aviation-induced cloudiness could also make an important contribution by lowering the rates of temperature increase in the near term.
- Technologies that achieve negative CO_2 emissions may be necessary in the long term (post 2030).

Recent literature reinforces the evidence provided by the 4th IPCC Assessment Report that limiting warming to less than 2°C above pre-industrial temperatures considerably reduces the risk of triggering accelerated or irreversible changes in the climate system as well as large-scale adverse impacts. Nevertheless, significant risks do still remain. (Belgium 2010)
The Copenhagen Accord also calls for a review in 2015 of a potential 1.5°C limit. The few limited assessments that are currently available give preliminary evidence that such a goal might only be possible by allowing temperatures to initially exceed 1.5°C, followed by temperature reductions towards the end of the century or later (overshooting) (Belgium 2010).
The 4th IPCC Assessment Report (IPCC 2007) considers a range of 25-40% reduction below 1990 levels by Annex I countries to be necessary to give a 50% probability of reaching the 2°C target. In addition, non-Annex I countries have to reduce their emissions by 15-30% below baseline (den Elzen and Höhne 2008).

2.1.2. Mitigation commitments of developed countries

While most Annex I countries chose 1990 as the base year for their emission reduction pledges, a number of countries decided to use other base years. For comparability, the countries' reduction pledges are given for different base years in Table 1. Current reduction targets by Annex I countries are still about 7 percentage points short of reaching even the end of the necessary range of -25 to 40 %. According to Rogelj et al. (2010), the pledges under the Copenhagen Accord correspond to a 50% chance that the increase in temperatures will exceed 3°C by 2010.

Table 1: Annex I reduction pledges (in %) for different base years excl. LULUCF

	1990	2000	2005
Australia	13/ 1/ -11	**-5/ -15/ -25**	-11/ -21/ -30
Belarus	**-5/ -10**	73/ 64	60/ 52
Canada	3	-15	**-17**
Croatia	**-5**	18	1
EU-27	**-20/ -30**	-12/ -23	-14/ -24
Iceland	**-30**	-36	-36
Japan	**-25**	-29	-30
Kazakhstan*	-8		22
Liechtenstein	**-20/ -30**	-28/ -37	-32/ -41
Monaco	**-30**	-37	-28
New Zealand	**-10/ -20**	-21/ -30	-28/ -36
Norway	**-30/ -40**	-35/ -44	-35/ -45
Russian Federation	**-15/ -25**	39/ 22	33/ 17
Switzerland	**-20/ -30**	-18/ -29	-21/ -31
Ukraine	**-20**	89	75
USA	-4	-16	**-17**
Annex I	-12 to -18	-13 (high end)	-16 (high end)

Notes: Base year used by the Party is shown in bold.
* The target for Kazakhstan is given as 15% reduction below 1992.
Source: adapted from Duscha et al 2010

To reach a 25% reduction below 1990, another 1.15 Gt CO_2eq reduction of emissions in 2020 is necessary in addition to the high end of the targets submitted under the Copenhagen Accord (Table 2). Even with the more ambitious target for Belarus, the Russian Federation and the Ukraine, about 0.8 Gt CO_2eq reductions could be achieved by ruling out countries who choose emission targets above their baseline and thus preventing new "hot air" from entering the system. To reach the high end of the IPCC range (40% reduction by 2020), an additional reduction of about 4 Gt CO_2eq is necessary.

In addition to the shortfall between scientific needs and Parties' pledges, two more aspects decrease the environmental effectiveness:

- AAU surplus: Under the Kyoto Protocol, Parties can bank any unused emission allowances from one commitment period to the next. Emissions in most central and eastern European countries fell far below their respective Kyoto targets during the restructuring of their centrally planned economies. Despite emission increases in recent years overall, these countries are still significantly below their commitments. Estimates for the carry-over of these unused units amount to 6% of the aggregate Annex I emissions in 1990 for all years between 2013 and 2020.
- Land-use, land-use change and forestry: If LULUCF is taken into account, emission reductions decrease further. There is still high uncertainty on the modalities for accounting LULUCF activities in a future agreement. If the individual Copenhagen pledges are corrected for the LULUCF accounting rules proposed by the respective countries, the overall emission reduction decreases by another 5 % of 1990 emissions for all years between 2013 and 2020.

Table 2: Absolute emission targets and reductions of Annex I Parties (high end of range)

	Emissions [Mt CO_2eq]			Target [Mt CO_2eq]		
	1990	2005	2020 BAU	2020 Target	Reduction to 1990	Reduction to BAU
Australia[(a)]	416	530	639	371	-45	-267
Belarus*	127	76	104	115	-13	11
Canada	592	734	867	610	17	-258
Croatia	33	31	36	31	-2	-5
EU-27	5 572	5 154	5 173	3 900	-1 672	-1 272
Iceland	3	4	4	2	-1	-1
Japan	1 272	1 358	1 451	954	-318	-497
New Zealand	62	77	93	50	-12	-44
Norway	50	54	56	30	-20	-26
Russian Federation*	3 326	2 123	1 869	2 495	-832	626
Switzerland	53	54	56	37	-16	-19
Ukraine*	922	426	585	585	-184	153
USA	6 135	7 107	6 946	5 899	-237	-1 048
Annex I pledges	18 572	17 726	17 878	15 078	-3 676	-2 648
Annex I -25%	18 572	17 726	17 878	13 929	-4 827	-3 796
Annex I -30%	18 572	17 726	17 878	13 001	-5 756	-4 725
Annex I -40%	18 572	17 726	17 878	11 143	-7 613	-6 582

Notes: * Target above 2020 baseline levels which would bring new "hot air" into the system. [(a)] Emission figures exclude emissions from LULUCF. For Australia an additional 72 MtCO2e came from the LULUCF sector in 2005.
Source: Adapted from Duscha et al 2010

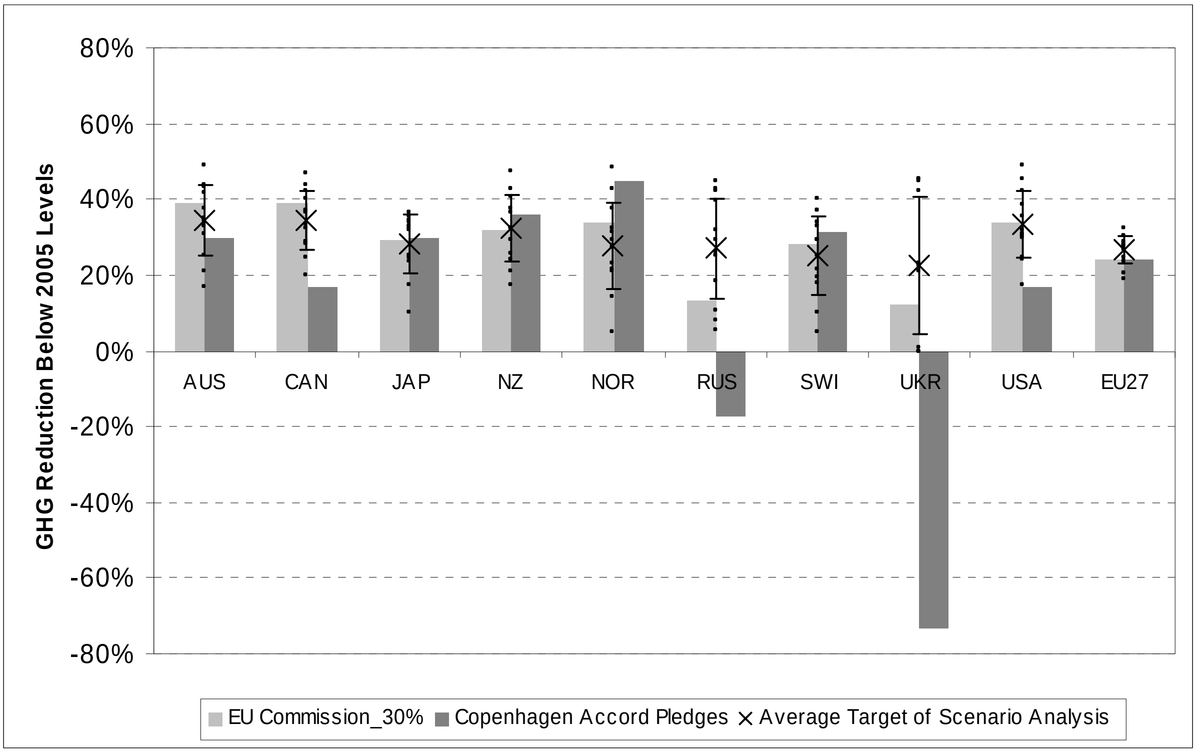
These two effects together signify that based on the current Copenhagen pledges emissions from Annex I countries will only decrease by -1 % to -7 % below 1990 levels. In 2008, GHG emissions from Annex I countries including the USA were 6.6 % below 1990 levels, i.e. a stabilisation of the group's current emissions would be sufficient for the achievement of the Copenhagen pledges.

Duscha et al. (2010) conducted a multi-indicator analysis of Annex I targets based on an overall reduction of -30 % below 1990 level. The methodology built upon the communication of the European Commission prior to Copenhagen (EC 2009). Figure 1 shows the targets proposed by the Commission, the high end of the pledges under the Copenhagen Accord and the range of outcomes of the different effort sharing proposals. To achieve the overall 30 % target, the USA, Russia, Ukraine and Canada would particularly need to enhance their commitments. The compliance costs for achieving the high end of the pledges are below 0.5 % of GDP in 2020 in all Annex I countries if international emissions trading is allowed but no carry-over of unused units occurs (Duscha et al. 2010).

The EU's unilateral target of cutting emissions 20 % by 2020 has lost much of its credibility since it was announced. Based on the latest emission data, the EU-27's 2009 emissions stand approximately 17.3 % below the 1990 level.

Projections indicate that the unilateral reduction target will be achieved with domestic emission reductions only, provided that Member States fully implement the Climate and Energy package adopted in 2009 (EEA 2010). Developing countries and NGOs are therefore pushing hard for the EU to move to its higher end of the pledge, often combined with the demand to achieve the 30 % reduction within the EU only.

Figure 1: Necessary and current emission reduction pledges by Annex I countries



Source: Duscha et al. 2010

2.1.3. Pledges for mitigation action from developing countries

Nationally appropriate mitigation actions (NAMAs) submitted by Non-Annex I countries vary greatly among countries. While some countries (Brazil, Indonesia, Israel, Marshall Islands, Mexico, Republic of Korea, Republic of Moldova, Singapore and South Africa) pledged non-binding, absolute emission reductions below a certain baseline or a business-as-usual (BAU) emission development, others (e.g. China and India) gave non-binding relative targets based on economic development and still others provided a list of intended actions in a number of sector (Table 3). The vast majority of developing countries submitted general expressions of intent but without specifying concrete targets. These expressions of intent include increasing energy efficiency, increasing the share of renewable energy, modal shift in the transport sector and reducing emissions from deforestation. Overall, 43 non-Annex I countries have submitted nationally appropriate mitigation actions to the UNFCCC secretariat (UNFCCC 2010a).

Table 3: Quantified NAMAs by Non-Annex I countries under the Copenhagen Accord

	NAMAs
Antigua & Barbuda	-25% below 1990 in 2020
Bhutan	carbon neutral by 2020
Brazil	36.1-38.9% below BAU by 2020
Chile	20% below BAU by 2020
China	40-45% reduction of CO_2 emissions/GDP below 2005 levels by 2020
Costa Rica	carbon neutral
India	20-25% reduction of CO_2 emissions/GDP below 2005 levels by 2020
Indonesia	26% below BAU by 2020
Israel	20% below BAU by 2020
Maldives	carbon neutral by 2020
Marshall Islands	40% below 1990 levels by 2020
Mexico	30% below BAU by 2020
Moldova	25% below 1990 in 2020
Papua New Guinea	50% reduction before 2030 and carbon neutral by 2050
Republic of Korea	30% below BAU by 2020
Republic of Moldova	at least 25% below 1990 levels by 2020
Singapore	16% below BAU by 2020
South Africa	34% below BAU by 2020, 42% below BAU by 2025

Source: Duscha et al 2010

Table 4 shows the emission reductions implied by the submitted NAMAs. For those countries that submitted a list of mitigation actions rather than a quantified reduction target, it was assumed that mitigation actions up to costs of 5 €/t CO_2eq would be realised in the sectors mentioned in the pledges. Overall reductions in Non-Annex I countries are calculated to add up to 2.9 Gt CO_2eq in 2020. The main reductions in terms of percentage below BAU come from Brazil, Mexico, South Korea and South Africa. The main reductions in terms of absolute tons of CO_2eq occur in China, Brazil and India, which are also the countries with the highest projected GHG emissions in 2020. In total, emission reductions in Non-Annex I countries are about 11 % below the business-as-usual emissions path. This is about 4 percentage points short of the lower end of the 15-30% reduction range below business-as-usual (den Elzen and Höhne 2008).

Emission reductions pledges by developing countries show a similar level of ambition as the pledges by Annex I countries compared to the necessary reductions. Overall, global greenhouse gas emissions are not expected to peak before 2020. The year of the global emission peak is an important parameter for the annual emission reductions up to 2050. If global emissions peak in 2020, annual GHG reduction rates of 5 % would be necessary to achieve the 2°C target with a 50 % probability (Belgium 2010). In other words: if the overall ambition for 2020 is not increased considerably, it will be very difficult to limit global warming to below 2°C.

Table 4: Emission reductions from NAMAs in developing countries

	BAU 2020 [$MtCO_2eq$]	Target 2020 [$MtCO_2eq$]	Reduction to BAU [$MtCO_2e$]	Reduction to BAU [%]
Brazil[(a)]	1 394	850	-544	-39
Chile	122	97	-24	-20
China	11 292	10 275	-1 016	-9
India	3 917	3 486	-431	-11
Indonesia[(a)]	757	560	-197	-26
Israel	107	86	-21	-20
Mexico	683	478	-205	-30
Moldova	17	29	12	72
Republic of Korea	684	479	-205	-30
Singapore	64	54	-10	-16
South Africa	840	554	-286	-34
Other countries' NAMAs	370	362	-8	-2
Other non-Annex I countries	6 990	6 990	0	0
Total non-Annex I countries	27 237	24 303	-2 934	-11

Notes: [(a)] Emission figures do not include emissions from REDD or REDD-plus. Inclusion of emissions from REDD and REDD+ could change results for Brazil and Indonesia significantly.
Source: adapted from Duscha et al 2010

2.2. Monitoring, reporting and verification (MRV) and compliance for developed countries

2.2.1. Background: key issues in the negotiations

For Kyoto Parties, not a lot of changes are proposed or expected in the areas of monitoring, reporting and verification. With more frequent national communications for Non-Annex I Parties, Annex I Parties proposed that they would submit short versions of national communications every two years (full national communications are submitted every 4 years), in particular focussing on financial support, policies and measures and projections.
The key focus of the MRV discussion for developed Parties is the formalisation of the pledges by Annex I Parties, the comparability of mitigation commitments of Annex I Parties and whether the US will be treated in a similar way as Kyoto Parties, even if the US does not ratify a Protocol-type legal agreement. At present the USA does not submit its inventories to a more thorough review process under the Kyoto Protocol and is not forced to improve the problems indicated by the inventory review. In the MRV discussions, it is important for the EU and developing countries that the USA commits to similar reporting and verification standards as other Annex I Parties. The USA is suggesting a common MRV approach for all Parties. In principle, important Kyoto MRV provisions could be transferred to the Convention under the Copenhagen Accord, but it is still unclear whether this would be acceptable to the USA and what would remain of these provisions. In bilateral conversations, the USA has been relatively open to adopting additional requirements related to reporting and review, but not related to accounting or any linkages to a formal compliance regime.

Annex I Parties also agree to enhance the reporting and review of support provided as requested by developing countries. Whether there will be substantial differences to the existing MRV procedures will only become apparent once the new guidelines on reporting and review are negotiated, which will clearly be after Cancun. The most likely area of strengthened provisions will be those on monitoring and reporting of financial support.
MRV is also linked to a compliance system. If there are no consequences for incomplete, inaccurate or intransparent reporting, the review of information is unlikely to lead to significant improvements. The link with compliance is another area in which the EU and G-77 disagree with the USA.

2.2.2. Agreement achieved in Copenhagen

For Annex I Parties the Copenhagen Accord contains the following provision:
"Delivery of reductions and financing by developed countries will be measured, reported and verified in accordance with existing and any further guidelines adopted by the COP, and will ensure that accounting of such targets and finance is rigorous, robust and transparent."
Thus, the rigour of future MRV will depend on the guidelines for reporting and review to be negotiated, a process that has not yet started.

2.2.3. Position of Parties

EU

- Future provisions on monitoring, reporting and verification should largely build on the existing system of reporting and review which can be further improved.
- The Convention reporting and review guidelines should be aligned with those under the KP to ensure a similar treatment of the US.
- A system should be established in which emission reductions and mitigation efforts of developed Parties can be easily compared and assessed against developed countries; in this regard accounting rules for emission reductions are important (gases, sectors, metrics to calculate CO_2 equivalents).

USA

- Supports a common MRV approach for all Parties – both developed and developing, is refusing to consider international LULUCF rules, or common rules for project-based credits.
- Supports the reporting of national communications every 4 years for all Parties and the reporting of biennial updates on the economy-wide emission reduction targets, including information on policies and measures, methodologies and the use of offsets as well as information on support. Thus, the USA is proposing rules for itself which are similar to those that they propose for developing countries.

G-77

- Emphasises the link between MRV and compliance; thus Parties who are not in line with reporting requirements shall face consequences. Want to enhance MRV for financial support in order to link reporting on financial support with compliance.
- Non-Annex I Parties in general stress the importance of maintaining the KP rules on accounting and MRV for all Annex I Parties including LULUCF, transfers, offsets, trading, etc.

- China and Brazil supported an extension of the Kyoto Protocol reporting and review system to Annex I countries that are not parties to the Protocol.

2.3. Monitoring, reporting and verification (MRV) for developing countries

2.3.1. Background: key issues in the negotiations

Currently, there is a lack of information on GHG emissions and emission trends at global level because no frequency for the submission of Non-Annex I national communications was established. China and India, for example, have only submitted one national communication up to now with GHG emission data for the year 1994. Consequently, official information on global GHG emissions is very limited in its coverage. There is neither a review nor any other type of assessment of national communications and inventories from Non-Annex I Parties. The latter has always refused to submit their information to any kind of international analysis or assessment. Annex I Parties want that important emitters from emerging countries provide regular GHG inventories and information on their actions based on agreed reporting guidelines and that this information is assessed at international level. They see enhanced requirements for monitoring, reporting and verification for developing countries as a key element of a post-2012 agreement.

2.3.2. Agreement achieved in Copenhagen

The Copenhagen Accord establishes that "*mitigation actions [..] including national inventory reports, shall be communicated through national communications […] every two years on the basis of guidelines to be adopted by the Conference of the Parties*." The most important new element is the frequency of national communications, which is specified as **every two years** – a considerable improvement on the existing situation in which the frequency of national communications from Non-Annex I Parties is not fixed at all.

In addition, the Copenhagen Accord specifies that *"Non-Annex I Parties will communicate information on the implementation of their actions through national communications. The national communications will be subject to "**international consultations and analysis**"* under clearly defined guidelines. The guidelines shall ensure that national sovereignty is respected.

The Copenhagen Accord specifies that "the supported nationally appropriate mitigation actions will be subject to international measurement, reporting and verification in accordance with guidelines to be adopted by the Conference of the Parties." The Accord also stipulates that nationally appropriate mitigation action seeking international support will be **recorded in a registry** along with relevant technology, finance and capacity building support.

It is important to consider the differences in submitted pledges for mitigation action by developing countries. Some developing countries submitted intensity targets, other economy-wide emission reductions against a BAU projection and others specific actions. Thus apart from the national inventory report, additional information to monitor the pledged action will be rather different for the individual countries, specific to the pledges and not comparable (because the pledges are not comparable).

2.3.3. Negotiation process in 2010

On MRV, progress was much more difficult to achieve than in other areas, with developing countries showing reluctance to engage in substantive discussions. Most of the time was spent on discussing the negotiation format; the negotiation text was not developed in many areas. Non Annex I Parties set the agreement on a second commitment period of the Kyoto Protocol as a precondition to any progress in the negotiations. During the negotiation sessions in 2010 a number of developing countries that agreed with the Copenhagen Accord (China, Brazil, India) no longer supported the Accord provisions related to MRV.

Annex I Parties jointly supported the enhanced frequency of Non-Annex I national communications and an international consultation process based on analysis by experts. USA and Japan suggested SBI for conducting the consultation after the analysis. Annex I Parties jointly stressed the importance of MRV for developing countries as part of a package in Cancun.

Parties also exchanged views on the role of a registry to match available finance with requests for support from developing countries, and recognition of actions. But the useful discussions were not be captured in new versions of negotiating texts to be forwarded to Cancun, but merely in documents produced by facilitators, the status of which was challenged by developing countries, in particular Brazil and China.

2.3.4. Position of Parties

- EU
  - Decisions in Cancun should provide clarity on the main elements of the changes to the MRV system, provide mandates to the SBI to elaborate operational details and guidelines for this MRV system and ensure a timely delivery of information needed for the 2015 review;
  - 4-year frequency of national communications submitted by Non-Annex I Parties;
  - Biennial reporting frequency for inventory and supplementary information specific to the pledged mitigation action and on support received;
  - Revision of Non-Annex I reporting guidelines and extension in the areas of mitigation measures, projections and adaptation;
  - National communication shall be subject to international consultation and analysis (ICA).
- Annex I Parties all supported enhanced MRV provisions for Non-Annex I Parties.
- The USA is highly demanding in terms of specific provisions and, for example, e.g. demanded international verification by independent auditor of all support received while they were opposing more rigid MRV provisions for themselves.
- China did not support the provisions of the Copenhagen Accord in terms of biennial reporting and international consultation and analysis.
- Brazil and India stressed the provisions of MRV related to supported action, but they did not see the need for enhanced provisions for the reporting of national communications or ICA of national communications.
- A number of Latin American countries and AOSIS supported more frequent national communications and a technical review of them (e.g. Chile, Colombia, Costa Rica).

- South Africa on behalf of the African group supported a more frequent update of national communications related to mitigation and GHG inventories.
- ALBA countries opposed the MRV provisions of the CA.

2.4. Financial support including fast-start financing

2.4.1. Agreement achieved in Copenhagen

The provision of financial support is addressed in paragraph 8 of the Copenhagen Accord: *Scaled up, new and additional, predictable and adequate funding as well as improved access shall be provided to developing countries, in accordance with the relevant provisions of the Convention, to enable and support enhanced action on mitigation, including substantial finance to reduce emissions from deforestation and forest degradation (REDD-plus), adaptation, technology development and transfer and capacity-building, for enhanced implementation of the Convention.*

For the period 2010-2012 developed countries committed themselves to providing new and additional resources approaching USD 30 billion with balanced allocation between adaptation and mitigation (fast-start financing). In the mid-term, the financing commitment by developed countries is to mobilise jointly USD 100 billion a year up to 2020 to address the needs of developing countries. The funding is supposed to come from a wide variety of sources, public and private, bilateral and multilateral, and includes alternative sources of finance. A significant portion of such funding should flow through the newly established Copenhagen Green Climate Fund.

2.4.2. Negotiation process in 2010

Negotiations on the financial support for developing countries in 2010 focused on fast-start finance, the Green Fund and an Overview Body. Potential sources were not addressed in substance; the outcome of the AGF was awaited first of all (see below). In view of slow progress in other areas of the negotiations, in particular on mitigation and MRV of actions, the USA, the EU and other developed countries expressed concerns about the current imbalance in progress in the negotiations.

Fast-start financing
Developing countries requested the formalisation of the Copenhagen Accord pledges by developed countries through a COP Decision. There is great and justified concern amongst developing countries that a large share of the fast-start financing will come from existing and not new and additional sources, i.e. the overall financial provisions will not be increased. In addition, a share of the funds is provided in the form of loans. The EU and other developed countries are not in favour of negotiations on such a decision. Fast-start finance is seen as a unilateral offer by industrialised countries and therefore not open to negotiation. Nonetheless, the G-77 and China signalled that they would put forward a draft Decision text on fast-start financing.

Architecture of the Copenhagen Green Climate Fund
Negotiations on the architecture have been constructive with a general agreement on monitoring, reporting and verification, the need to assess any gaps in the funds provided and the need for a coordination of the activities of different funds. Lastly, the Parties agreed that political and operative decisions should be separated.

The Green Fund should have different windows to ensure adequate resources are provided for the different financing needs. A window for mitigation and a window for adaptation are generally accepted. Germany and other countries are arguing for an additional window for REDD+.
There is broad support for a three-step approach for the operationalisation of the Green Fund. 1) Decision by COP 16 to establish the Green Fund and its main elements; 2) detailed elaboration of the fund structure in a separate group; and 3) integration of the outcome into the UNFCCC. There are different views on the specifics of each step; this has to be addressed in Cancun.

The EU showed its support for transparent reporting of climate finance by proposing a way forward for work on the measurement, reporting and verification (MRV) of long-term climate finance.

Establishment of an Overview Body
In discussions on a new overview function for climate finance a wide range of options was proposed, ranging from an informal "Forum of Entities" supported by the USA, Japan and Switzerland to a "Standing Committee" with a large number of coordination functions proposed by the G-77. Bolivia went back to the original G-77 proposal of a Finance Board which should have the power to influence financing decisions of institutions under and outside the Convention. The EU proposed an overview function building on existing institutions, which would ensure a periodic overview of climate finance flows, identify financing gaps and encourage synergies and coordination of all relevant actors.

2.4.3. Status of fast-start finance

Fast-start financing is seen as one of the crucial elements for a successful Cancun session. There is significant confusion and uncertainty on whether or not developed countries will deliver on their Copenhagen fast-start finance commitments. This is partly for two reasons:

- According to the Copenhagen Accord, fast-start finance should be new and additional. Although there is no clear definition of what that means, there is a general understanding that the funding pledged so far by industrialised countries contains many existing sources and is therefore not additional to a theoretic business-as-usual scenario. Most notably the US is under strong criticism for this.
- A large share of the funds is given as loans. Although the loans have to be repaid by developing countries, they are counted fully in the total USD 30 billion.

Environmental NGOs have been lobbying hard on this and the more hard-line developing countries might use perceived failures to block an outcome in Cancun. A more constructive approach which might be taken by the pragmatic developing countries could be to address the problems when looking at finance for 2013 onwards, recognising that a fallout on fast-start finance would not lead to productive results. The scepticism is shared even by progressive developing countries (e.g. Cartagena Group) and developing countries are pushing for a COP Decision in Cancun on fast-start finance. Annex I countries argue that the financial pledge has been a unilateral offer and therefore cannot be subject to a COP Decision.

The EU will report in Cancun that it is close to delivering the full EUR 7.2 billion promised for fast-start finance (PointCarbon 2010). European countries and the European Commission have committed EUR 2.2 billion in 2010, equivalent to 92 percent of the annual commitment.

48 percent of the funds have been made as grants while 52 percent are concessional loans. The funds are allocated to mitigation (48 %), adaptation (34 %) and REDD+ (17%).

2.4.4. AGF report

The Secretary-General of the United Nations established the High-level Advisory Group (AGF) on Climate Change Financing in February 2010. Following its terms of reference, the Advisory Group worked around the goal of mobilising USD 100 billion per year by 2020. The final report was published in November (AGF 2010) and includes the following findings:

- The Advisory Group emphasised the importance of a carbon price in the range of USD20-USD25 per ton of CO_2 equivalent in 2020 as a key element of reaching the USD100 billion per year.
- Based on this price, the auction of emission allowances and domestic carbon taxes in developed countries with up to 10 percent of total revenues allocated for international climate action could potentially mobilise around USD 30 billion annually.
- Approximately USD 10 billion annually could be raised from carbon pricing international transportation, assuming no net incidence on developing countries and earmarking between 25 and 50 percent of total revenues.
- Up to USD 10 billion could be mobilised from other instruments, such as the redeployment of fossil fuel subsidies in developed countries or some form of financial transaction tax.
- International private investment flows could lead to private net transfers in the range of USD 10 billion to USD 20 billion. Increased carbon market flows could deliver around USD 10 billion of net transfers.
- Direct budget contributions based on existing public finance sources, such as domestic revenues, could continue to play an important role, as Governments may prefer to increase direct budget contributions before they implement new instruments.

Overall, the AGF concluded that “raising US$100 billion per year is challenging but feasible” (AGF 2010). The report itself has no formal status in the negotiations but is expected to be picked up by many countries including the Cartagena Group. In the past, Venezuela has been highly critical of the process for producing the report and might continue this by opposing consideration of the outcome.

2.5. Reducing emissions from deforestation and degradation (REDD+)

2.5.1. Background: key issues in negotiations

Up to 20% of global CO_2 emissions are due to tropical deforestation and forest degradation. Yet this major emission source is not directly addressed by the UNFCCC or the Kyoto Protocol. There is international consensus that this situation must be rectified in an international agreement through a programme for reducing emissions from deforestation and forest degradation in developing countries (REDD) and for promoting conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+).

The European Commission estimates that REDD will cost developing countries an additional EUR 18 billion per year by 2020. International public funding needs for REDD and agriculture in developing countries are estimated at EUR 7-14 billion per year up to 2020.

The EU proposed a three-stage approach to building REDD+ which is also reflected in the negotiation text:

1. In a 'readiness' phase developing countries should elaborate REDD+ strategies and set up the infrastructure for implementing them on a national scale. This phase, which is already under way in some developing countries, would include establishing national forest inventories and monitoring and demonstration activities. Preparations should be stepped up as soon as possible after Copenhagen.

2. Concrete national policies and strategies should be put in place to reduce emissions from the forest sector. These would include such measures as forest governance, land tenure reforms, forest law enforcement and biodiversity conservation. These first two phases would be supported directly through international public finance. The EU is open to the use of simplified reporting requirements, combined with conservative estimates of emission reductions, in order to get REDD actions started.

3. A performance-based financial mechanism would be established under the UNFCCC to create an economic incentive to reduce deforestation and keep forests standing. Developing countries would set a national reference level for emissions from deforestation and forest degradation on the basis of historical trends and future projections. The reference level would be independently reviewed and verified. Financing would be released in proportion to how much developing countries reduced their verified emissions below the reference level.
The mechanism should initially be funded through international public financing. In the medium to long term, it could progressively be replaced by a carbon market approach involving the sale by developing countries of credits for avoided emissions.

2.5.2. Agreement achieved in Copenhagen

The Copenhagen Accord highlighted the need for the immediate establishment of a mechanism to combat forest emissions in developing countries (Paragraph 6). Agreement was reached that an incentive scheme on forest emissions should cover the following REDD+ activities:

(a) Reducing emissions from deforestation;
(b) Reducing emissions from forest degradation;
(c) Conservation of forest carbon stocks;
(d) Sustainable management of forest;
(e) Enhancement of forest carbon stocks.

Phases that countries should follow on the path to reducing deforestation were also agreed and progress was made related to the social safeguards that should be met in order to secure that actions against deforestation also fully contribute to a sustainable development of the country and the protection of biodiversity.

The Copenhagen Accord did not establish a quantified level of ambition for 2020 and onwards as proposed by the EU. Since the beginning, developing countries have shown resistance to engaging in such objectives, which they perceive as a too big a constraint on their future development.

The issues relating to geographical scale and leakage in a REDD+ scheme are still under negotiation. Geographical scale refers to the question of whether a REDD+ scheme has to be implemented at national level or whether it can also be implemented at sub-national level. The latter is close to project-type activities and carries a much larger risk of leakage, meaning that deforestation activities are only moved to other regions in a country if a REDD+ scheme is implemented in one region only. The EU pushed for national level implementation, while many developing countries and the USA want to allow for sub-national schemes.

Leakage – the displacement of deforestation activities as a consequence of REDD activities in some regions – is addressed in a rather weak way in the negotiation text; it is stated that ‘broad country participation’ should be promoted and that ‘actions to reduce displacement of emissions’ should be considered.

The language related to the environmental safeguards (biodiversity, local communities, non-permanence, leakage or forest governance structures) in the negotiation texts is rather weak and Parties “further affirm that when undertaking REDD activities, the following safeguards should be promoted and supported.” A should provision to promote and support biodiversity (or other safeguards) is not a strong basis for the further elaboration of rules for the operationalization of these safeguards.

2.5.3. Negotiation process in 2010

For discussions at the 10th session of the AWG-LCA in August in Bonn a new text was prepared by the Chair. Most of the text was clear of brackets, reflecting the good progress and agreement achieved in this area in Copenhagen. Many countries saw this text as a good basis and as almost agreed upon. However, Saudi Arabia, Bolivia and Nicaragua made additional proposals that included modifications to the implementation of REDD+ activities; removal of references to markets; and exclusions of offset mechanisms. Saudi Arabia requested the inclusion of carbon capture and storage (CCS) as part of REDD+. These proposals and additions resulted in two text options for REDD+ in the negotiation text. Thus, REDD+ – previously an area in which rather good progress was made on the negotiation text – was blocked by Saudi Arabia and Bolivia in August. The text from the LCA chair on a balanced package for Cancun shows scaled-down ambitions for a decision on REDD which would concern the readiness phase only.

The European Union wanted decisive action on deforestation under the Copenhagen agreement and demanded that goals be set which at least halved gross tropical deforestation from current levels by 2020 and halted global forest cover loss no later than 2030. During 2010 it became clear that many developing countries oppose the fixing of a quantitative target for the reduction of deforestation; the USA also argued against such target.

The REDD discussions are very much driven by the requirement to start as soon as possible with REDD activities. This leads to a high level of activities outside the UNFCCC, and many Parties want to move ahead instead of elaborating complicated rules. Due to this time pressure, it will be important to carefully monitor the practical activities that will be implemented as part of the fast-start finance in order to see in which areas rules will be necessary at international level to ensure environmental integrity of the implementation.

2.5.4. REDD+ interim partnership in 2010

At the Oslo Forest Climate Conference on 27 May 2010 representatives of 50 governments agreed to establish a partnership for reducing emissions from REDD+. Partner governments agreed to provide a voluntary framework, including a secretariat to be provided jointly by the UN and the World Bank. This would serve as an interim platform for immediate action aimed at scaling up REDD+ actions and finance while negotiations on REDD+ continue under the UNFCCC. The main objectives of the partnership are to facilitate readiness activities, demonstration activities, result-based action, the scaling up of finance and actions and to promote transparency. 71 countries have joined the partnership so far. It is considered as interim and will be replaced by an UNFCCC REDD+ mechanism once this has been agreed and established.

The Paris-Oslo REDD+ partnership received considerable attention and recognition during the June negotiation sessions. Afterwards co-chairs changed to Japan and Papua New Guinea (PNG). With the new co-chairs, many conflicts emerged during the meetings which have been largely triggered by the co-chairs' lack of transparency. Meetings focused on formal questions related to the participation or the establishment of a secretariat. PNG refuses to involve civil society and NGOs in the process, but donor countries as well as Brazil and Mexico pushed for open meetings with NGO participation. With the focus on formal issues and a considerable number of conflicts, modest progress was made in the second half of 2010. The recent summary of the Aichi-Nagoya ministerial meeting of the REDD+ partnership from October 2010 does not contain much progress on substantial issues.

2.5.5. Position of Parties and stakeholders

- European Union
  - Agreement on a quantitative and qualitative goal consistent with halting global forest loss by 2030 at the latest, and reducing gross tropical deforestation by at least 50% by 2020 compared to current levels.
  - Phased approach for REDD+; in the medium to long term REDD+ could be phased into the international carbon market under the condition that market integrity is preserved, and robust measurement, reporting and verification requirements are met.
  - Agreement on safeguards consistent with the draft LCA text that was agreed in CPH and that include those to protect the interests of indigenous peoples and local communities and to ensure preservation of biodiversity, ecosystem services and social co-benefits. The EU wants to extend MRV requirements to include safeguards.
  - Institutional arrangements should build on existing institutions and should support the phased approach to REDD+.
- Most developing countries with substantial natural forests want to see fast progress on decisions related to REDD and many would prefer to go ahead with the implementation without a lot of specific guidance. Developing countries also want to get substantial finance commitments from Annex I Parties for the implementation of REDD+ activities.

- REDD+ is an area on which individual Non-Annex I Parties have many specific views; the high diversity of views on the individual issues is difficult to present within the scope of this paper. The differences are mostly related to specific implementation issues at a level of detail which is currently no longer reflected in the negotiation text.
  - The relationship between REDD and carbon markets is a key area of divergence within developing countries where ALBA countries oppose to market mechanisms, but also Brazil is very sceptical about the link of a REDD+ mechanism with carbon markets.
  - Annex I Parties are usually in favour of a REDD+ mechanism due to the importance of emissions from deforestation.
  - Saudi Arabia: uses REDD+ as a vehicle to get new financial support for CCS
  - ALBA group: appose links between REDD+ and carbon markets.

2.6. Accounting for GHG emission changes from land use, land use change and forestry (LULUCF)

2.6.1. Background: key issues in negotiations

The rules on how developed countries are to account for GHG emissions or removals from land use, land use change and forestry (LULUCF) are an important element of the Kyoto Protocol's architecture. Depending on how they are designed, future LULUCF accounting rules could significantly affect the ambition level of the post-2012 emission reduction targets of developed countries.

For the discussions on the accounting of LULUCF, the general discussion on the future of the Kyoto Protocol is an important question. If the Kyoto Protocol does not continue, the specific accounting rules for LULUCF would disappear and only the land-based Convention reporting would remain in the GHG inventories.

The USA is generally opposing accounting rules for LULUCF as under the Kyoto Protocol. The US wants to continue with a system of pledges where countries report emission and removals from LULUCF under the Convention and decide themselves on the accounting of these emissions and removals as part of their mitigation targets. They favour an option of accounting all LULUCF emissions/ removals as reported under the Convention (land-based accounting) against the base year 1990.

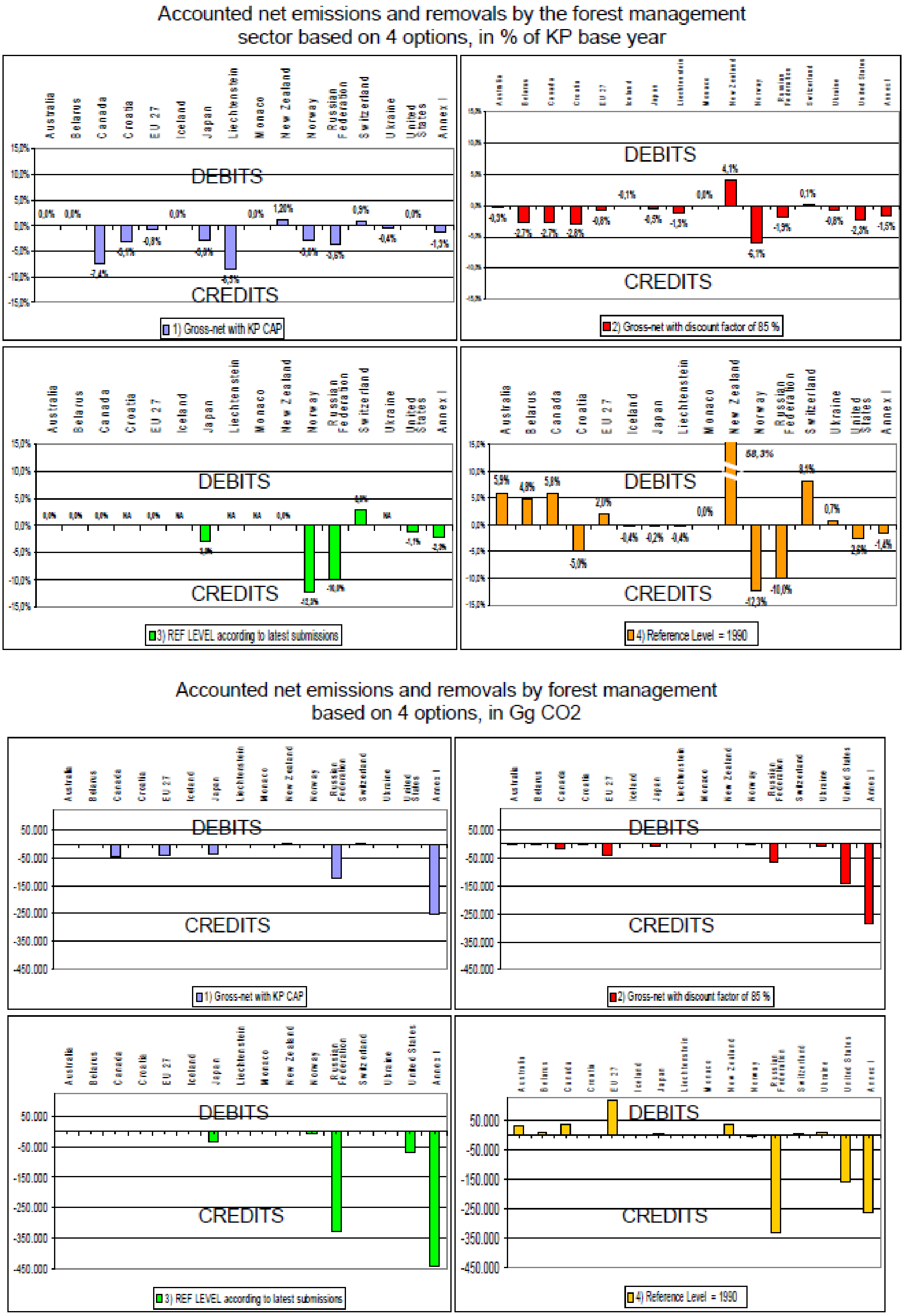
LULUCF rules in the first Kyoto Protocol commitment period include:

- Mandatory accounting for **afforestation, reforestation and deforestation** (ARD) activities. These are accounted for using a 'gross/net' approach (see below).
- Voluntary accounting for **forest management**, **cropland management**, **grazing land management** and **revegetation**. Forest management is accounted for using a 'gross/net' approach with a cap. The other three activities use a 'net/net' approach (see below).

In quantitative terms forest management is the most relevant part of the accounting of the LULUCF sector. For the post-2012 period different accounting options are discussed:

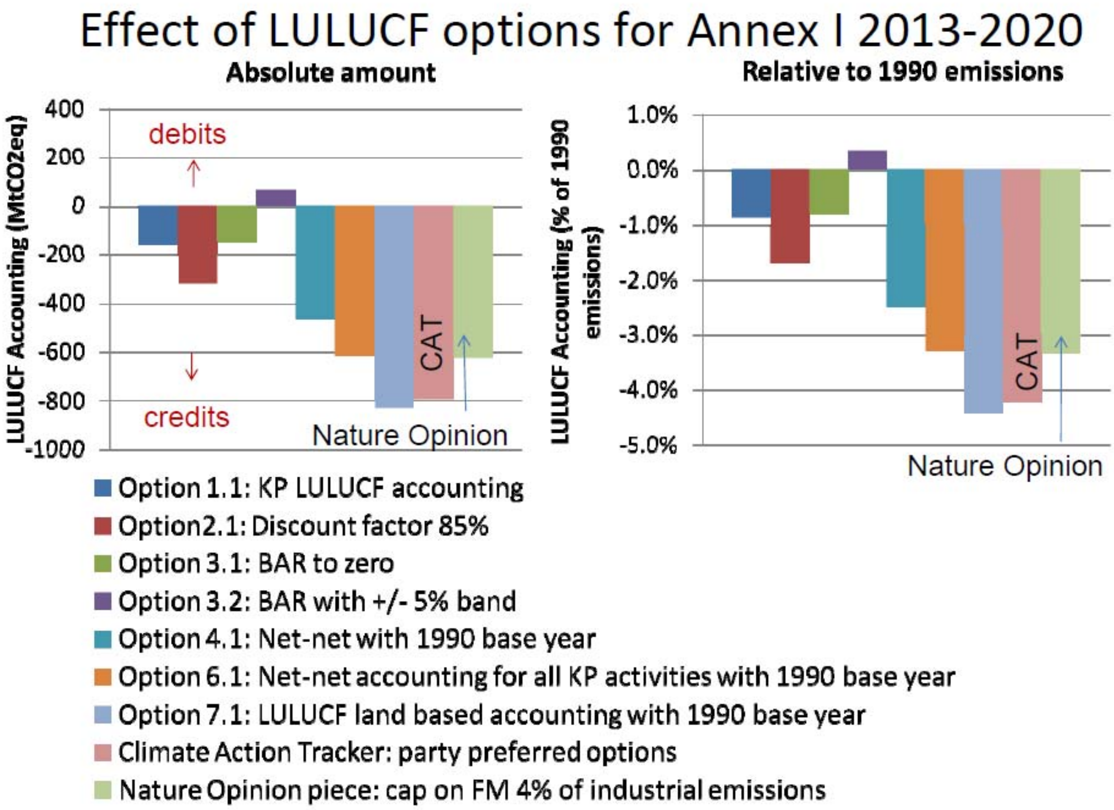
- **Gross–net accounting:** A country's total GHG emissions or removals from LULUCF in a given year are accounted for in its GHG balance. The accounted net emissions/ removals are not compared to a base year, but the total emissions/removals in a year are accounted. In the first commitment period a gross-net accounting approach with a cap for forest management was used. Only emission/removals up to the cap threshold are accounted. For most countries this cap was less then 10% of their emissions/removals from forest management. Without a cap the accountable removals in a gross-net approach could be very high and compensate for a very large part of emissions from other sectors.
- **Net – net accounting:** Only the difference between the total net GHG emissions/ removals from LULUCF in a given year minus the emissions/removals in a defined base year are accounted for in its GHG balance. This is the approach used for all other sectors of emissions.
- **Reference emission level (bar):** The difference between the total net GHG emissions/removals from LULUCF in a given year minus a reference emission level defined by each Party are accounted for in its GHG balance. The reference emission level can be the emissions/removals in a particular past year or a projected level of business as usual emissions/removals in the commitment period. Countries can chose which reference emission level they will use.
- **Reference emission level with band:** Includes an interval or band which creates a zone in which changes in emissions or removals lead neither to debits nor to credits. Only emissions or removals exceeding the band are accounted for.

Figure 2: EU assessment of quantitative effects of different LULUCF accounting options on the achievement of targets in the period 2012-2020



Source: EU 2010b

Figure 3: Assessment of quantitative effects of different LULUCF accounting options on the achievement of targets in the period 2012-2020 provided by PIK



Source: Hare 2010

In addition to the accounting of emissions/removals from forest management, new rules have been introduced by Annex I Parties for the accounting of harvested wood products and in the case of force majeure events a “time out” of accounting is proposed for land recovering from force majeure events (such as storms, pests, fires).

2.6.2. Agreement achieved in Copenhagen

The Copenhagen Accord does not mention the LULUCF sector separately. It is left to each Party to decide whether and how it includes emissions and removals from LULUCF in its pledges. Only a few pledges from Annex I Parties mention whether the pledges include LULUCF emissions and removals (Belarus, New Zealand). LULUCF is also not specifically addressed as a separate draft decision under AWG-LCA.

2.6.3. Negotiation process in 2010

The negotiation options for the accounting rules for LULUCF under the Kyoto Protocol which came out of Copenhagen have been streamlined and options have been narrowed down. Discussions after Copenhagen also focused on the quantitative implications of the LULUCF contributions from different accounting options and helped to increase the understanding of the implications.

The Annex I Parties under the Kyoto Protocol converged towards using the reference emission levels for the accounting in the future and further clarified the approach for projected emission reference levels.

It was proposed that Parties provide updated quantified estimates for their reference emission levels in early 2011 followed by a review in 2011. G-77 and China are still sceptical with regard to the reference emission levels and Tuvalu rejects this option and proposes the use of the first commitment period emission/ removals as the reference for accounting. G-77 still wants to have a total cap for all accountable emissions and removals from forest management as under the first commitment period and wants mandatory accounting of all activities.

Australia and Canada are strongly pushing for the force majeure rules which are opposed by G-77 and AOSIS. The last AWG session in China saw useful discussions on force majeure and harvested wood products, which clarified critical issues under discussion (force majeure: definition, trigger, treatment of non-CO_2 gases; harvested wood products: treatment of exported wood products) as well as Parties' positions on these issues.

An issue that is still open is whether the reference level approach will be combined with a cap for accounting of credits from LULUCF in a way similar to the first commitment period (expressed as x% of AAUs).

Japan opposes dropping the current forest management cap option if there is no reassurance that the Japanese approach to the reference level option (i.e. reference level set to zero coupled with a narrow definition of forest management) will be accepted. Despite the considerable differences on key elements, LULUCF is the area in which the negotiation text made considerable progress in 2010.

2.6.4. Position of Parties and stakeholder groups

EU position

- The EU is in favour of the reference emission level based on projected emissions/ removals.
- Accounting for forest management should become mandatory for all developed countries, provided appropriate flexibility is foreseen.
- The EU frequently has difficulty in finding a common position on the individual negotiation elements and is not always jointly supporting a clear position that aims at limiting the accounting in the LULUCF sector to strengthen the overall ambition of the Annex I emission reduction pledges.
- The EU position is also very much driven by the willingness to be constructive and finding compromises with Annex I Parties and therefore aimed at integrating issues proposed by other Annex I Parties in its approach.

Australia and Canada

- Australia and Canada are strongly pushing for special provisions for force majeure events, with the effect that a country can remove land areas from the accounting that were affected by storms, pest, etc.
- They are also pushing for the inclusion of harvested wood products in the accounting.

Japan

- Japan wants to keep the current gross-net accounting approach or wants to set the reference emission level as 0. Japan also wants to keep a cap for forest management. It is also pushing for the inclusion of harvested wood products in the accounting.

G-77

- Accounting should be continued as under the Kyoto Protocol, in the view of G-77.
- Establishing a cap for forest management is considered important.
- They are against the force majeure rules proposed by Australia and Canada.

Environmental NGO positions

- They are not in favour of a system in which Parties can choose historic or projected reference emission levels for accounting.
- Mandatory accounting of forest management is desired in order to ensure that emissions resulting from forest management for bioenergy production are accounted for. There must be a safeguard in place to ensure that these emissions are accounted for in either the energy or LULUCF sector.
- Major sources of emissions must be accounted for, e.g. from forest and peatland degradation.
- LULUCF credits must not undermine or substitute significant investments and efforts required to reduce fossil fuel emissions. This should be ensured either through the use of caps or discounts of LULUCF credits.

2.7. Flexible mechanisms

2.7.1. Background: key issues in the negotiations

- Putting a price on carbon through the use of market mechanisms is imperative to drive low carbon investment and reduce global emissions cost-effectively;
- An expanded international carbon market could generate up to EUR 38 billion a year in additional financial flows to developing countries by 2020 (EC estimate); it could be one of the main sources of mitigation finance for developing countries post-2012;
- The EU proposes enhancing the global carbon market by establishing sectoral mechanisms to promote greater emissions mitigation, in particular by advanced developing countries, and as a prerequisite for agreeing to ambitious targets by developed countries;
- The CDM and JI need to be reformed to strengthen their effectiveness and environmental integrity; the participation of LDCs in the CDM should be increased.

2.7.2. State of play on negotiations relating to exiting mechanisms

The two project-based market mechanisms established by the Kyoto Protocol – the Clean Development Mechanism (CDM) and Joint Implementation (JI) – need to be reformed to strengthen their effectiveness, efficiency, environmental integrity and governance.

The CDM and JI are market mechanisms through which approved emission-reducing or sink-enhancing projects generate credits that governments or companies in developed countries can use to offset part of their emissions. CDM projects are carried out in developing countries and JI projects in developed countries. Together the two mechanisms currently account for around 12% of the international carbon market.

Standardised methods and tools should be developed to calculate emission baselines and reductions and to further ensure that CDM and JI projects lead to genuinely additional emission savings. This standardisation should improve the mechanisms' environmental integrity, streamline the project registration process and reduce transaction costs.

The participation in the CDM of the Least Developed Countries (LDCs) in particular, which have less possibility of financing low-carbon investments, should be strengthened. In the longer term, the CDM should gradually be replaced by sectoral carbon market mechanisms.

One contentious issue under the CDM are HFC-23 projects. Credits from such projects (CER) can be generated at cost well below € 1 while they are traded at prices between € 10 and € 15 and thus result in considerable windfall profits. New investigations suggest that this context creates incentives to increase emissions just to be able to destruct them so that such CERs would not be additional. These issues are dealt with at three levels: a) a review of the baseline methodology may result in a considerable reduction of CERs which can be generated in existing and new projects; b) under the AWG-LCA parties should be encouraged to support initiatives under the Montreal Protocol to phase-out the production of theses HFCs; c) the European Commission – supported by the European Parliament – is considering to exclude such CERs from being used in phase III of the EU ETS.

2.7.3. State of play on negotiations relating to new flexible mechanisms

A legally binding agreement needs to go beyond project-based mechanisms by establishing sectoral crediting and trading mechanisms, to be applied in particular to major emitting sectors in the more advanced developing countries. The broader scope of sectoral mechanisms will deliver larger emission savings than the project-based CDM and thus generate higher revenues from the sale of offset credits to finance mitigation action in developing countries. The above-mentioned sectoral mechanisms are:

- Sectoral crediting: The developing country sets a sectoral emissions threshold below the business-as-usual trend. For all emission reductions achieved beyond the threshold, the country receives credits that can be sold to developed countries as offsets. These revenues finance mitigation in the developing country. Thresholds are 'no lose', i.e. there is no penalty if they are not met (but no credits are generated either).
- Sectoral trading: The developing country sets a sectoral emissions target below the business-as-usual trend. The target defines a cap on the number of tradable units, which are created in advance. If emissions are reduced below the target, the developing country has excess tradable units and can sell the excess to developed countries as offsets. These revenues finance mitigation in the developing country. If the sector emits more than the cap allows, the developing country must buy credits to make up the difference.

The EU wants to see the creation of an OECD-wide carbon market by 2015 through linking the EU Emissions Trading Scheme (EU ETS) with other cap-and-trade systems that are comparable in ambition and compatible in design. Currently, the EU ETS accounts for 80% of the demand on the international carbon market.

The sectoral mechanisms to be established could serve as a stepping stone to the introduction by more advanced developing countries of domestic cap-and-trade systems. More advanced developing countries should set ambitious emission thresholds and targets for specific sectors as part of their low-carbon growth plans. The thresholds and targets should reflect the countries' respective capabilities. The EU is willing to work with these countries to identify appropriate sectors and to facilitate the sectoral mechanisms by allowing the credits and tradable units which they will generate to be used in the EU ETS at the appropriate time.

A legally binding agreement should initiate an orderly transition to the sectoral mechanisms to provide clarity to investors and ensure the continuing stability of the international carbon market. The CDM should be phased out for the sectors and countries that participate in the sectoral mechanisms but existing CDM investments would be honoured.

A robust system of monitoring, reporting and verification (MRV) of the sectoral mechanisms must be put in place to ensure only real emission reductions are recognised. Developing countries will require additional capacity building support for their participation in the carbon market, including MRV. This is especially the case for the participation of more advanced developing countries in the sectoral carbon market mechanisms and of LDCs in the CDM.

2.7.4. Position of Parties

Existing market mechanisms
Standardisation of the CDM is currently negotiated under the SBSTA. Developed countries support the approach as an option to increase the environmental integrity and the efficiency of the CDM by making registration of projects simpler and more objective. In general, many developing countries support this approach although they have concerns on details such as regional coverage, data availability or responsibility for developing and approving standard values.

Brazil, supported by Saudi Arabia, rejects the concept and argues that standardisation is beyond the mandate of the Kyoto Protocol since these standards are applied to multiple projects.

New market mechanisms
The EU's proposals on new market mechanisms are actively supported by many developed countries and also by a number of developing countries such as South Korea and some progressive Latin American countries such as Chile, Colombia or Peru. Other developing countries are less supportive but are willing to explore the concept further. Since Copenhagen there has been a great degree of convergence among many Parties that progress in the consideration of new market mechanisms is needed, if not necessarily in the details of their design. Regrettably this debate could not be reflected in the negotiation text for Cancun due to a few obstructive Parties, namely Bolivia and Saudi Arabia, who are fundamentally opposed to market-based mechanisms and therefore tactically resist having a clearly structured text with options.

2.8. International aviation and maritime emissions

2.8.1. Background: key issues in the negotiations

International civil aviation and maritime transport are two of the fastest-growing GHG emission sources. Together they account for some 4.3% of global emissions. Emissions from international aviation have grown at an average of 2.5% per year in recent years and account for 1.4% of global annual emissions. For international maritime transport the figures are 4.4% and 2.9% respectively. In absolute terms, international aviation emitted about 400 Mt CO_2 in 2006 and international maritime transport 870 Mt CO_2 in 2007; these quantities are comparable to large EU Member States such as Poland (395 Mt CO_2eq. in 2008) and Germany (960 Mt CO_2eq. in 2008).

2.8.2. State of play on these negotiations

Emissions from international aviation and maritime transport (so-called 'bunker fuels') were not directly included in the Copenhagen Accord. The overall objective to limit global warming to below 2°C implies that international transport needs to be addressed as well, due to the forecasted emission growth in these sectors until 2050. These sectors are addressed under cooperative sectoral approaches in the mitigation track of the LCA (item 1.b.iv). The main issues discussed between Parties are:

- Role of the UNFCCC in relation to IMO/ICAO
- The treatment of developing countries
- Necessary emission reductions

There is growing consensus amongst Parties that the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO) should develop and implement measures to reduce emissions from their respective sectors with some guidance from the UNFCCC. Despite this, the agenda item is highly controversial and Parties' positions have not converged in the last year. The most contentious question is whether the principle of 'common but differentiated responsibilities' (CBDR) should apply in these sectors when addressing greenhouse gas emissions or whether IMO/ICAO should act according to their own principles of equal treatment of all vessels/operators. Lastly, some countries including the EU would like to set global sectoral targets under the UNFCCC whereas others see no need to do so.

2.8.3. Position of Parties

The **EU** has been one of the strongest demanders for progress under this agenda item. Emissions should be addressed globally through IMO/ICAO with absolute emission caps to be set by the UNFCCC. Emissions would not be allocated to Parties but addressed directly at vessel/operator level, e.g. through an emissions trading scheme. The EU has proposed global targets of 20% and 10% below 2005 levels in 2020 for international maritime transport and international aviation, respectively. To take into account the different economic situations amongst Parties, the EU suggests using a share of potential revenues from any market-based mechanisms (levy, emissions trading schemes, taxes) in these sectors for climate finance in developing countries. All other **Annex I Parties** and some developing countries including **Singapore, Mexico,** many **AOSIS members** and **African countries** agree with the need for a global approach and, with the exception of the USA, actively support the idea of using revenues to reflect the principle of CBDR.

China, **India**, **Brazil**, **Egypt**, **Saudi Arabia**, **Venezuela** and **Argentina** are the countries most opposed to any action in these sectors. Their main concern is that a deviation from the principle of common but differentiated responsibilities could be used as a precedent for other sectors. China very strongly opposes any action in these sectors.

Almost all developing countries are worried about the impacts that any measures could have on trade and tourism and therefore their development. Most studies estimate any negative impacts to be negligible in the vast majority of cases but for individual countries or products price increases could be in the order of a few percent. Adding the full price of carbon to the fuel costs would increase the marine bunker fuel price by about 20% at current price levels; in comparison, the fuel price fluctuations are much higher (up to doubling in a year) and therefore impact trade much stronger than carbon costs.

2.8.4. Position of IMO and ICAO

In the **IMO** Parties are discussing two sets of measures to reduce emissions from international shipping:

- energy efficiency standards for new ships
- market-based mechanisms.

At the last session of the Marine Environment Protection Committee (MEPC 61) in September 2010, Parties were divided on the question of equal treatment versus differentiation between countries. No agreement could be reached to circulate the efficiency standards for adoption at the next session. Despite this, a vote at MEPC 61 is likely because several countries including France and Norway have announced their intention to circulate the standard on their own. On market-based mechanisms the Committee agreed to hold an inter-sessional meeting in March 2011 with the intention of starting to discuss the substance.

Similarly, during the last **ICAO** assembly in October 2010, Parties could not agree on the principles which should govern measures to address greenhouse gas emissions from aviation. In the end, the assembly adopted a non-binding efficiency target until 2020 and a stabilisation of 2020 emission levels afterwards. Countries are supposed to act based on their own carriers and any country whose carriers contribute to less than 1% of the global aviation activity are exempt from any action. These two rules could lead to unequal treatment of carriers operating on the same route and therefore to distortion of competition.

A more thorough description of the state of play in IMO and ICAO is given in sections 5.2 and 5.3.

2.9. Technology and technology transfer

2.9.1. Background: key issues in the negotiations

- A legally binding agreement needs to establish the right conditions for international cooperation on technology across the full cycle, from research and development to diffusion and transfer;
- Parties should agree to establish a technology mechanism to support development and transfer of technology;

- Developing countries should set out the support which they need for technology development and deployment in their low carbon development strategies.

2.9.2. Issues in negotiations

Limiting global average temperature increase to 2°C requires further development and deployment of low-carbon and climate resilient technologies in key sectors such as energy, industry, agriculture and transportation. However, private and public spending on research, development and deployment (RD&D) related to energy has been declining globally since the 1980s. This trend must be reversed in order to build a low carbon global economy. At the same time the focus of RD&D needs to shift towards safe and sustainable, low GHG-emitting technologies, especially renewable energy and energy efficiency.

Establishing a new Technology Mechanism (TM) should enable country-driven mitigation and adaptation actions supported by international financial and technical assistance towards this goal. Depending on individual country needs and national circumstances, all technology-related activities under the TM should accelerate deployment and diffusion of existing technologies as well as research, development and demonstration of new technologies. In addition, the TM should provide support for technology-related capacity building, Technology Needs Assessments, planning R&D planning, etc. The TM will consist of a Technology Executive Committee (TEC) and a Climate Technology Centre and Network (CTCN), working in a complementary manner.

The TEC will provide policy advice and recommendations to the COP, notably in relation to policies, programme priorities and eligibility criteria, with the aim of balancing support for technology activities between adaptation and mitigation actions. The TEC should not take decisions in relation to finance nor manage a Technology Fund, but the EU is open to exploring how to ensure a communication channel between the TEC and the financial arrangement, if appropriate.

The CTCN will comprise a Centre and a network of (mainly) existing regional and national institutions. The CTCN will provide capacity building and technical assistance for research, development, demonstration, deployment and diffusion of new and existing technologies, on the basis of the needs identified by each developing country. The Centre will facilitate access to the Network institutions and to capacity building support. The Network will deliver services on the ground. This Network will connect a range of relevant institutions such as national and regional Technology centres as well as other stakeholders (actors like non-profit organisations, academic, research and business communities) and international institutions such as Renewable Energy & Energy Efficiency Partnership (REEEP) and International Renewable Energy Agency (IRENA).

All countries should, in addition, create incentives and mechanisms to engage the private sector in technology cooperation. Public-private partnerships and access to carbon market financing are important to increase the demonstration and deployment of safe and sustainable technologies in developing countries.

2.9.3. Position of Parties

Negotiations on technology transfer have made some progress since Copenhagen, notably on the mandate and composition of the TEC and on the content and structure of the CTCN and its relationship to the TEC. However, several issues are still being debated:

- **Technology transfer and finance:** An agreement on technology hinges on the finance agreement; G-77 wants a strong link to the financial mechanism or better its own technology window in the new fund; the Umbrella Group wants the financial arrangements as completely separate. Moreover, developed countries claim that technology support in terms of finance, technical assistance and capacity building provided under a legally binding agreement should be counted as part of support to developing countries.
- **Institutional arrangements:** G-77 wants a clear hierarchy between TEC and CTCN and to establish the CTCN at the UNFCCC secretariat; the Umbrella group fears that political body of the TEC would jeopardise the operational entity CTCN and want them completely separate; the EU maintains a position in between G-77 and the Umbrella Group. The EU shares concerns on policy interference with operational entities but wants to allow for some guidance from the policy level (COP).
- **Intellectual property rights (IPRs):** Developed countries highlight that the protection and enforcement of IPRs are fundamental for promoting technological innovation and creating incentives for private sector investment in R&D. A weakening of intellectual property protection of technologies for climate change mitigation and adaptation would risk slowing down technological development in this field, thus hampering the fight against climate change. Interestingly, Parties do not seem to be keen on discussing the contentious issue of whether or not to address IPR in the TM. Uganda gave certain signals that they see this more as a bargaining chip to put pressure on developed countries than a real concern.

2.10. Adaptation

2.10.1. Background: key issues in the negotiations

- Adaptation to climate change is an essential complement to mitigating GHG emissions;
- Increased financial support for adaptation, particularly in the most vulnerable developing countries, is needed both for a 'fast start' and beyond 2012;
- A legally binding agreement should foster the UNFCCC's role as a catalyst in mobilising adaptation action by all Parties and relevant organisations;
- To achieve progress in Cancun on adaptation, an agreement on institutions which are compatible with the requirements of the Bali Action Plan (BAP) will be a key issue.

2.10.2. Issues in negotiations

Keeping global warming below 2°C could prevent serious climate change impacts. However, even below this level adverse effects will be felt in all countries. Many vulnerable nations, in particular LDCs and SIDS, are already experiencing adverse climate impacts today. Their ability to cope varies considerably. The poorest nations, and the most vulnerable sectors of society (the poor, women, children and the elderly), will be hit the hardest. Climate change is already seriously undermining efforts to reduce poverty and hunger in developing countries and posing a major threat to the achievement of the Millennium Development Goals. Adapting to present and future climate change is thus an essential complement to mitigating GHG emissions and should be undertaken by all nations. The more mitigation action is taken, the less need there will be for adaptation.

Implementing adaptation actions that are consistent with and integrated into national policy planning – for example sectoral plans or poverty reduction strategies wherever relevant - is key to effective adaptation.

The European Union has proposed a **Framework for Action on Adaptation (FAA)** to enhance the coherence and effectiveness of adaptation action. The goal of the FAA is to build a more **climate-resilient society** through effective adaptation actions as an integral part of sustainable development. The framework would define Parties' roles and responsibilities. The guiding principles of the FAA would require all Parties to:

- Commit to undertaking effective adaptation that is integrated into and consistent with sustainable development policies and strategies at national and other levels;
- Prioritise adaptation measures;
- Put in place enabling environments to ensure an effective and transparent adaptation process;
- Enhance capacity building efforts;
- Prioritise the needs and specific circumstances of the poorest and least able to adapt - including indigenous peoples, women, children and the elderly - in planning and development processes at all levels;
- Identify their own adaptation needs, options and priorities, including disaster risk reduction, management and prevention;
- Enhance the sharing of information, knowledge and data;
- Promote broad stakeholder participation in adaptation actions;
- Promote the coordination and sustainability of activities undertaken within the adaptation framework.

In addition, developed countries would commit to:

- delivering on their GHG mitigation commitments;
- improving access to new, additional and predictable financial flows for adaptation by developing countries.

The UNFCCC should play a catalytic role in mobilising adaptation activities in all Parties and by relevant international, regional and national organisations and institutions. Existing institutions at national and regional level should be built upon and strengthened where necessary.

Financial, technical and capacity-building support for adaptation will need to be increased, particularly for the most vulnerable developing countries. Financing for the implementation of priority actions should be provided through a 'fast-start' deal for 2010-2012, while funding must also be ensured to support adaptation in the longer term. Support should be provided first for urgent needs such as those identified in **National Adaptation Plans of Action (NAPAs)** and other relevant documents, as well as to prepare for post-2012 action through investments in capacity building, knowledge, data and information systems, and risk reduction and management. Thereafter support should be based on adaptation needs defined by each country. Development cooperation also has an important role to play in supporting adaptation in particularly vulnerable countries. This cooperation should build on support currently provided through bilateral and multilateral channels, including UNFCCC funds and the Adaptation Fund.

All Parties should follow up on the effectiveness of adaptation by monitoring and reviewing the implementation of adaptation action and the support given to it. This will allow information and lessons learned to be shared with a view to improving the effectiveness of adaptation actions. Financial support provided and received for adaptation should be reported in Parties' National Communications.

2.10.3. Position of Parties

With regard to a decision in Cancun five issues are being debated:

- Targets and scope: Saudi Arabia's requests to discuss how to address the potential impacts of the implementation of response measures – such as increased oil prices – as an element of the discussions on adaptation to the adverse impacts of climate change is very controversial. For the EU, response measures are a clear mitigation issue.
- Implementation: The LCDs in particular are requesting a separate support process for middle and long term planning of adaptation and implementation
- Institutions: A decision text on institutional arrangements at national level for strengthening the regional cooperation of developing countries and for research on improved exchange of information has already been agreed. Positions on establishing a central adaptation committee and an international mechanism for restitution for permanent loss and damage are, however, still very diverging between developed and developing countries.
- Support: The USA and Australia provided a proposal for a compromise. The importance of this proposal depends, however, on the overall agreements on finance. The EU is of the view that financial support for adaptation should be based on countries' vulnerability and their capacity to deal with the adverse effects of climate change.
- Reporting: There are still diverging views among developed and developing countries on country-led reporting of progress on adaptation and on receipt and provision of financial support via improved National Communications, although the two text proposal are rather similar.

2.10.4. Adaptation initiatives

The Global Climate Adaptation Partnership (GCAP) was initiated by the USA, Spain and Costa Rica as an informal cooperation of interested developed and developing countries. The goal of the partnership is to encourage effective adaptation by serving as an interim platform to catalyse action and foster communication among the various institutions and actors engaged in the effort to scale up adaptation and resilience around the world. The Partnership aims at synthesising lessons learned and good practices, highlighting needs and priorities, and identifying opportunities for cooperation and alignment of support to build resilience to the adverse effects of climate change.

The Global Climate Change Alliance (GCCA) is an EU initiative aimed at strengthening political dialogue and cooperation on climate change with the most vulnerable and poor developing countries, in particular LDCs and SIDS. GCCA support focuses on adaptation activities, especially in the water and agricultural sectors, on reducing emissions from deforestation and forest degradation, on disaster risk reduction and on enhanced participation of LDCs in the carbon market.

2.11. Capacity building

2.11.1. Background: key issues in the negotiations

- Due to the cross-cutting nature of capacity building it needs to be integrated in many institutions rather than a new institution dedicated to capacity building being established;
- Impact of capacity building cannot be captured by global performance indicators since it needs to be specifically tailored to the needs of each developing country;
- Just to ensure consistency of negotiations, detailed discussions on how to finance capacity building should be avoided.

2.11.2. Issues in negotiations

Capacity building is a cross-cutting issue which is quite relevant for an effective implementation of many climate change activities including mitigation, adaptation, MRV, etc. Against this background, negotiations are focusing on three topics:

- **Establishment of a new institution:** Should a new institution dedicated to capacity building be established under the UNFCCC or should existing institutions at the national, regional and global level including regional centres and bilateral or multilateral cooperation outside UNFCCC enhance action on capacity building?
- **Performance indicators:** Monitoring and evaluation of the implementation of capacity building can provide better knowledge of what works in terms of capacity building. It is being debated, however, whether monitoring and evaluation of capacity building experiences including the development of performance indicators should be specific to national context instead of having a 'one size fits all' approach.
- **Stand-alone or integrated approach:** Capacity building is relevant for many activities in the context of climate change. Capacity building provisions can therefore either be integrated under the respective chapters of a legally binding agreement or be addressed in a separate decision.

2.11.3. Position of Parties

Despite the broadly recognised validity of the current UNFCCC capacity building framework which was established by the Marrakesh Accords, many developing countries emphasise the need to enhance capacity building efforts. Although the positions developing and developed countries are still diverging, convergence seems possible in the context of an overall agreement:

- **Establishment of a new institution:** In order to underline the importance of capacity building, many developing countries prefer the establishment of a dedicated capacity building institution under the UNFCCC; most developed countries including the EU do not see the need for a new institution. The EU should, however, be open to discussing the functions of the technical panel suggested by the G-77 in order to identify if those could be integrated under existing institutional arrangements.
- **Performance indicators:** Developing countries favour the development of harmonised performance indicators for the implementation of capacity building; the EU and other developed countries are of the view that developing countries should assume the ownership of monitoring and evaluation process and ensure that it is consistent with national priorities and that global performance indicators, such as monetary indicators for the measurement of financial capacity building support, cannot appropriately capture the impacts of capacity building.
- **Stand-alone or integrated approach:** Developing countries have a clear preference for a stand-alone approach; given the context-specific nature of capacity building, the EU has always advocated the integration of the capacity building provisions under the relevant chapters of the LCA text. However, the EU would be ready to accept a separate decision or chapter provided that it contains neither the establishment of a new institution, nor the development of global performance indicators.

Financial support for capacity building activities could be ensured through the new climate fund that is to be established, through Global Environmental Facility (GEF) interventions and through bilateral, regional and other multilateral channels of support as stated in UNFCCC. In order to ensure the consistency of negotiations, the EU should avoid discussing how the financing capacity building through the new climate fund should be done as this is discussed under the overall financial architecture.

3. COUNTRY POSITIONS

3.1. China

3.1.1. Facts

Copenhagen Accord pledge: "China will endeavor to lower its carbon dioxide emissions per unit of GDP by 40-45% by 2020 compared to the 2005 level, increase the share of non-fossil fuels in primary energy consumption to around 15% by 2020 and increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic meters by 2020 from the 2005 levels." (28 January 2010).

Table 5 : Emissions profile for China

	China	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	6.2	4.0
• Rank	1	-
• Of global total	21.8%	14.5%
• Per capita (t)	4.8	8.4

Source: http://cait.wri.org

3.1.2. Positions

Despite evidence of considerable action undertaken at home (energy efficiency targets in the 11th Five Year Plan, expansion the use of renewable energies, e-mobility, etc.), China has fundamentally declined to accept legally binding targets and is putting the onus on developed countries to assist with clean technology.

China is a major player in the CDM; it is by far the largest supplier in terms of reduction credits (CERs), which, however, predominantly stem from the HFC23 destruction. Interest in implementing emissions trading as a domestic policy tool is also growing in China. In July 2010, the National Development and Reform Commission (NDRC) announced that China will establish domestic carbon trading programmes in selected provinces and/or sectors during the 12th Five Year Plan from 2011 to 2015 to help to meet its 2020 carbon intensity target. Such efforts are, however, self-imposed and are strictly separated from ongoing international negotiations.

Economic costs and energy security concerns are likely to keep China heavily reliant on coal. According to the IEA's World Energy Outlook 2010, China puts into operation one coal fired power plant (1 GW) every 10 days on average up to 2035 in the Current Policies Scenario. Apart from their significant local environmental impacts, the rise in Chinese greenhouse gas emissions threatens to undermine EU reductions. EU-Chinese cooperation on Near Zero Emissions Coal initiative (NZEC) seeks to address this issue.

The Chinese Ministry of Science and Technology is preparing an adaptation plan, which will set out options for China to deal with climate change. The EC is assisting with the development of similar plans at provincial level.

3.1.3. Issues for discussions

Domestic efforts in China towards mitigating climate change should be recognised and welcomed while indicating that the CA pledge is considered to be only little below or even above business-as-usual developments.

In addition, China should be encouraged to engage in discussions on an international consultation and analysis (ICA) of actions and emissions and to indicate readiness to accept more ambitious targets in the future once a certain level of development is achieved.

3.2. India

3.2.1. Facts

Copenhagen Accord pledge: "India will endeavour to reduce the emissions[2] intensity of its GDP by 20-25% by 2020 in comparison to the 2005 level." (30 January 2010)

Table 6: Emissions profile for India

	India	**EU 27**
CO_2 emissions (2006)		
• Absolute (Gt)	1.3	4.0
• Rank	5	-
• Of global total	4.7%	14.5%
• Per capita (t)	1.1	8.4

Source: http://cait.wri.org

3.2.2. Positions

India's participation in the international climate negotiations has thus far been mostly defensive. It has argued against commitments and put the onus on developed countries to live up to their responsibilities before expecting action from developing countries.

India's stance on climate change is driven by its overriding desire to secure development and alleviate poverty through economic growth. Although climate change and the environment would not list high on India's priorities for bilateral cooperation, the government recognises that India faces many environmental challenges and that environmental protection and climate protection present certain opportunities for Indian society and business. India is the second largest supplier in terms of reduction credits (CERs) and accounts for almost 18% of issued credits (UNFCCC 2010b).

India supports the establishment of a REDD mechanism which includes provisions on reforestation and forest management and preventing deforestation and degradation. As regards adaptation, India is prepared to bear the costs of national adaptation measures to some extent. However, costs beyond their own contributions should be supported by financial transfers of developed countries. Market-based concepts of financial support are rejected since they do not provide the planning security required for adaptation.

[2] The emissions from agriculture sector will not form part of the assessment of emissions intensity.

In terms of financial support, India had provided detailed concepts for the establishment of a fund with specific windows for mitigation, adaptation and technology transfer. India rejects direct involvement of existing financial institutions such as the World Bank or Regional Development Banks since the influence of developing countries would be limited. Financial commitments of developed countries should range from 0.5-1.0% of GDP in addition to existing development aid.

3.2.3. Issues for discussion

Only recently, India has suggested a system of international consultation and analysis (ICA). The system should be established under the SBI and includes a tiered approach where requirements depend on the share of global GHG emissions. The consultation and analysis will take place once every 2-3 years for countries with a share of more than 2% of greenhouse gas emissions. The remaining countries will go through the process once every 4-5 years. The consultation will be handled by a group of experts from the North and South. What has been suggested is a version of the regime that exists under the WTO. India has made it clear that only the impact and not the suitability of action will be discussed (TET 2010).

3.3. Brazil

3.3.1. Facts

- The Federative Republic of Brazil is divided into 26 states and 5,565 municipalities according to the Brazilian Institute of Geography and Statistics (IBGE, 2009a).
- The country has a presidential system and is governed under the 1988 Federal Constitution.
- Encompassing an area of 8,514,876.6 km^2, Brazil is the largest country in South America. It has 186 million inhabitants. The country had an average population growth of 1.15% per year over the 2000-2008 period. In 2008, most of the population (84.4%) lived in urban centres.
- In 2008, Brazil's GDP was USD 1,406.5 billion, and the GDP per capita was USD 7,420.00. Between 1990 and 2005, Brazil's economic growth exceeded population growth, and the population grew at an annual rate of 1.5% during this period, while GDP reported an annual growth rate of 2.6% during the same period. A significant portion of its population (about 30 million people) is still in poverty, lacking access to quality healthcare services, water supply and education.
- Regarding the share of economic sectors in the Gross Domestic Product (GDP) the distribution was as follows in 2006: 65.8% for the service business, 28.8% for industry and 5.5% for agriculture.

Table 7: Emissions profile for Brazil

Emission trend	1990-2005 (incl. LUCF)[2], in %	+ 57.8%
Total emissions	2005, in Mt CO_2eq (incl. LUCF)	2,193
Per capita emissions	2005, in t (including LUCF)	11.7
Share / global emissions[2]	2005, in %	2,7

Source: Brazil's 2nd national communication, 2010

Rank in global emissions according to World Resources Institute (2009): Climate Analysis Indicator Tool [http://cait.wri.org/]

Note: the table shows very high per capita emissions, which is due to the contribution of deforestation in Brazil; the numbers for population and total emissions are taken from the most recent Brazilian document.

Table 8: Mitigation potential and mitigation costs

Mitigation target for 2020 compared to BAU:	-20%
Annual mitigation costs, in EUR billion	3
Total costs 2013-2020, in EUR billion	14

Source: EU Commission (2009)

- Among the BASIC countries, Brazil is the one with the strongest pledge for emission reductions. In its pledge under the CA, Brazil announced the reduction of GHG emissions by 36-39% beyond the BAU scenario. This is equivalent to a stabilisation of emissions at the 2005 level. About half of the emission reduction is to be achieved through the reduction of deforestation, the other half in sectors such as agriculture or the steel industry. Brazil uses a large amount of hydropower and biomass and has therefore a rather limited potential for emission reduction in the energy sector. The national target to reduce deforestation is ambitious.
- The Clean Development Mechanism (CDM) contributed significantly to GHG emission reduction in Brazil. In August 2010, the potential of annual greenhouse gas emission reduction from 460 CDM project activities in Brazil under validation or in a subsequent stage in the CDM pipeline represented 8% of emissions from sectors other than land use, land use change and forestry (only afforestation and reforestation are eligible for CDM as LULUCF activities), which accounted for about 59% of Brazil's emissions in 1994. Five CDM project activities related to the production of adipic acid and nitric acid alone have reduced N_2O emissions close to zero in the Brazilian industrial sector and 25 registered CDM project activities accounted for a reduction of approx. 47% of methane emissions in landfills in 1994.

3.3.2. Positions

- Mitigation: Brazil stresses historic emissions, equity and right for development and poverty reduction as the basis to defining mitigation targets. It strongly pushed for the continuation of the Kyoto Protocol without changes to the current rules.
- Brazil stresses the voluntary nature of the mitigation activities of developing countries and does not want to see NAMAs included in a legally binding agreement.

- Brazil is very advanced with its own reporting of GHG emissions and national communications and implements methodologies similar to Annex I Parties. However, it strongly objects to enhancing MRV requirements for Non-Annex I Parties in general and a regular reporting of national communications, in particular of GHG inventories and improved methodological guidance that would make the emissions reporting more transparent. Brazil also rejects any review or consultation of the information reported by Non-Annex I Parties.
- Brazil opposes the use of updated global warming potentials (GWPs) from IPCC 4th assessment report for the conversion of GHG gases into CO_2 equivalents. It wants to change to a different type of system using global temperature equivalents, which has not yet developed from a scientific point of view and which was not recommended in the most recent IPCC report. There is a risk that in the future there will be no conversion to CO2 equivalence of gases if Brazil continues to insist strongly on this issue.
- Adaptation: Brazil announced that it would support poor countries in Africa and Latin America with USD 5 billion over the next 10 years in efforts to adapt to climate change.
- Finance: Annex I Parties shall finance most of the mitigation action in developing countries. Brazil opposes any contributions from developing countries.

3.3.3. Issues for discussions

- REDD is a central part of the national mitigation strategy in Brazil. It is therefore essential that the reported emission reductions are reviewed/verified. So far Brazil has strongly opposed any international review of their GHG emissions or national communication. Brazil is also arguing against a process of international consultation and analysis as outlined in the CA. The verifiability of the emission reductions in the forestry sector will be key for the credibility of the national mitigation target.
- Brazil strongly supports fund solutions before direct market-based mechanisms for REDD+. It has a rather careful approach towards market-based approaches in the forest sector which in many areas supports the EU view to ensure that carbon markets are stable and that strong MRV underpins the emission reductions.
- The model of the Amazon fund in Brazil is unique in the context of REDD+ because it links payments to verified emission reductions.
- Brazil has very recently published its 2nd national communication with detailed information on its emission development and mitigation action (available at http://www.mct.gov.br/index.php/content/view/326984.html).

3.4. Mexico

3.4.1. Facts

Copenhagen Accord pledge: For 2020, Mexico aims at reducing its GHG emissions up to 30% with respect to the business as usual scenario if developed countries provide adequate financial and technological support.

Table 9: **Emissions profile for Mexico**

	Mexico	**EU 27**
CO_2 emissions (2006)		
• Absolute (Gt)	0.4	4.0
• Rank	13	-
• Of global total	1.6%	14.5%
• Per capita (t)	4.4	8.4

Source: http://cait.wri.org

3.4.2. Positions

Mexico plays an important role as a progressive advanced developing country and as a mediator between Annex I countries and developing countries. It is a member of the OECD, a member of the Environmental Integrity Group, one of the largest emitters of the world and is treated as a non-Annex I country under the UNFCCC. As the host of COP 16, Mexico might be able to use the trust earned across country groups for securing an agreement on some elements.

The national climate change programme includes the short-term target to reduce emissions by 51 Mt CO_2eq with respect to the business-as-usual scenario in 2012. In addition to the Copenhagen target of -30 % with respect to business-as-usual, Mexico also adopted a long-term target of -50 % below 2000 levels in 2050. Consequently, Mexico is one of the few developing countries that have adopted concrete short-, mid- and long-term targets which are also in the range needed for global warming to stay below 2°C. Despite this, Mexico calls for a global emissions peak around the year 2035 which would not be in line with the 2°C target.

Key positions of Mexico for Cancun (Mexico 2010):

- All countries, according to their capabilities and their common but differentiated responsibilities should do their utmost to limit global warming to below 2°C;
- Developed countries shall agree to legally binding commitments together with a strong MRV system;
- Developing countries should commit themselves to voluntary action, taking into account national circumstances; MRV for developing countries should respect national sovereignty;
- Adaptation should have the same importance as mitigation and an institutional framework under the UNFCCC should be adopted;
- Financial and technological mechanisms should be established to support the stabilisation of GHG concentrations in the atmosphere;
- Enhance and fortify the participation of civil society and other important actors in the process.

In the negotiations, Mexico demands that emission reductions by developing countries should be on a purely voluntary basis but with a strong MRV commitment.

In 2008 Mexico made a proposal for a Multinational Fund for Climate Change which included contributions by developing countries.

3.4.3. Issues for discussion

Domestic emission reductions in Mexico and the role of Mexico as the COP presidency should be recognised and welcomed. Having the presidency, Mexico should strive to secure a decision on the legal form of a post-2012 agreement as a basis for COP 17 in South Africa. To this end, Mexico as a Party should agree to inscribe its Copenhagen pledge in a legally binding agreement.

The mid-term emission reduction pledge under the Copenhagen Accord has largely not been implemented in national policy or law. Mexico should be encouraged to extend its climate change programme from 2012 to 2020. This should also include the aim to halt deforestation well before 2020.

3.5. South Africa

3.5.1. Facts

- **Copenhagen Accord pledge**: South Africa has committed itself to reduce emissions by 34% by 2020 and 42% by 2025 compared to BAU, conditional on international deal with enabling framework and provision of finance, technology and capacity building. These figures were calculated on basis of Long Term Mitigation Scenarios (LTMS), Integrated Resource Plan for Electricity Sector (IRP) of December 2009 and activities in the Clean Technology Fund Investment Portfolio.
- South Africa has 49 million inhabitants. The country had an average population growth of -0.051% (2010 data), thus its population trend is rather stable.
- In 2009, South Africa's GDP was USD 505.3 billion (PPP), and the GDP per capita was USD 10,300. Between 1990 and 2005, South Africa's recent economic growth was -1.8% in 2009. A significant portion of its population (about 30 million people) is still in poverty, lacking access to quality healthcare services, water supply and education.
- South Africa has very energy-intensive industry; the fuel mix is based to 90% on coal. At 10 tons per capita South Africa has very high per capita emissions. 11th highest emitter after China and India among developing countries.

Table 10: **Emissions profile for South Africa**

Emission trend	1990-2005 (excl. LUCF)[2], in %	+ 26.5%
Total emissions	2005, in Mt CO_2eq (excl. LUCF)	422.8
Per capita emissions	2005, in t	9.0
Share / global emissions[2]	2005, in %	1.45

Source: World Resources Institute (2009): Climate Analysis Indicator Tool [http://cait.wri.org/]

- South Africa was the first emerging country that agreed to the 2°C objective. It has developed a long-term low carbon emission strategy in which national emissions peak between 2020 and 2025, then stabilise for a decade, and subsequently reduced.
- By 12 November 2010 a draft green paper for a national Climate Change policy was adopted by the Cabinet in South Africa and will be open for comment by the public. The final policy paper in form of a white paper is expected for mid-2011.

3.5.2. Positions

- South Africa is one of the strategic partners for discussing the avenues leading to a post-2012 climate regime. Since Bali South Africa has made many useful contributions on possible different elements of a post-2012 climate regime. South Africa is in the vanguard of the G-77 & China who are calling for further action under the United Nations Framework Convention on Climate Change (UNFCCC).
- Mitigation Annex I Parties: South Africa wants the Kyoto Protocol to be continued and requests 40% emission reduction from industrialised countries up to 2020 compared to 1990, 90% of which shall be met by domestic activities.
- Mitigation Non-Annex I Parties: Developing countries have to take measures to deviate from BAU. NAMAs should be implemented in the context of sustainable development.
- South Africa has put forward the idea of a registry for Nationally Appropriate Mitigation Actions (NAMAs) and developed proposals for a life-cycle of NAMAs and for international MRV of NAMAs, It also supports the development of new sectoral mechanisms linking NAMAs with Carbon markets.
- Germany has established an MRV partnership with South Africa to organise an international dialogue on MRV and South Africa is proactive in advancing approaches for MRV related to developing countries.
- Adaptation: This is a high priority for South Africa; adaptation fund has been requested.
- Finance: NAMAs in developing countries depend on finance provided by Annex I Parties. Adaptation is seen as the main focus of finance needs. MRV for financial support of Annex I Parties. It criticises Annex I Parties for lack of ambition related to finance pledges.

3.5.3. Issues for discussion

- Status of implementation of mitigation policy in South Africa, needs and challenges. Request information with regard to the recent green paper on climate change policy.
- MRV for developing countries
- Legal outcome of Cancun.

3.6. USA

3.6.1. Facts

Copenhagen Accord pledge: "Emissions reduction in 2020: **In the range of 17%**, in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in light of enacted legislation.[3]; **Base year: 2005**" (28 January 2010).

Table 11: Emissions profile for USA

	USA	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	5.8	4.0
• Rank	2	-
• Of global total	20.0%	14.5%
• Per capita (t)	19.4	8.4

Source: http://cait.wri.org

3.6.2. Positions

On mitigation, the USA highlights that targets need to be backed by national policies and measures; support for REDD in developing countries could accounted towards developed countries pledges. It believes advanced developing countries should be treated like developed countries once they have surmounted a certain level of development. Developing countries should establish low emission development strategies, taking into account their respective capabilities.

Although not a party to the Kyoto Protocol, the USA is interested in having access to CDM credits to recognise them under domestic legislation. Against this background the USA is engaging in efforts to improve the environmental integrity of the CDM. In addition, the USA supports the establishment of sectoral approaches to enhance the coverage of the global carbon market.

Private sources of financial flows are considered more important than public sources for financial support; with regard to management, the USA prefers involvement of the World Bank and their Climate Investment Funds.

In terms of adaptation the USA supports the establishment of a general adaptation framework which includes provisions on financial support, technology and capacity building; new institutional arrangements should be established only where existing institutions are not capable of carrying out the required tasks.

3.6.3. Issues for discussion

After the mid-term elections in early November 2010, the draft climate act, which was presented prior to COP 15 in Copenhagen, finally needs to be considered as failed. On 4 November, 2010, President Obama stated that the planned cap-and-trade scheme was "just one way of skinning the cat".

[3] The pathway set forth in pending legislation would entail a 30% reduction in 2025 and a 42% reduction in 2030, in line with the goal to reduce emissions 83% by 2050.

He now wants to work with Republicans to find other ways of curbing GHG emissions, including the promotion of clean-coal technologies and nuclear power. In addition, the US Environmental Protection Agency is preparing to start regulating GHG emissions from power plants and oil refineries. Both Democrat and Republican senators are also suggesting the establishment of a renewable portfolio standard which would make the use of renewable fuels to some extent mandatory.

3.7. The Russian Federation

3.7.1. Facts

Copenhagen Accord pledge: "Emission reduction in 2020: **15-25% reduction**[4]; **Base year: 1990**" (4 February 2010).

Table 12: Emissions profile for the Russian Federation

	Russian Federation	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	1.6	4.0
• Rank	4	-
• Of global total	5.7%	14.5%
• Per capita (t)	11.4	8.4

Source: http://cait.wri.org

3.7.2. Positions

Russia has set clear formal preferences for economic development and aims at doubling its GCP by 2020. In addition, Russia highlights specific national circumstances (big, cold and relying on energy trade and heavy industry) which should be taken into account with regard to mitigation targets. Current GHG emissions are some 34% below 1990 levels and estimates for 2020 amount to 30% of 1990. Therefore, the Copenhagen Accord pledge would actually not contribute to emission reductions but result in increasing GHG emissions.

One of Russia's key concerns is carrying over its 18% excess AAUs ("hot air") from the 1st to the 2nd commitment period (about 5.5 Gt). In addition, Russia calls for full accounting of its forest sinks which, depending on the accounting rules for LULUCF, could amount to an additional 365 Mt per year (about 12% of its 1990 emissions).

In terms of mitigation of developing countries, Russia follows an all or nothing approach, i.e. all major economies should agree to contribute to global emission reductions efforts. Therefore, Russia also supports the establishment of sectoral approaches, not least because such approaches might improve the competitiveness of Russia's energy-intensive export industries such as steel and aluminium.

[4] The range of GHG emission reductions will depend on the following conditions:
- Appropriate accounting of the potential of Russia's forestry in frame of contribution in meeting the obligations of the anthropogenic emission reduction;
- Undertaking by all major emitters the legally binding obligations to reduce anthropogenic GHG emissions.

So far, Russia has not adopted a clear position on financial support. Officials communicated that Russia would not commit to additional support beyond what is already provided to the Commonwealth of Independent States. Financial contributions at a later stage, for example beyond 2020, might be possible.

3.7.3. Issues for discussion

Domestically Russia aims at improving the energy productivity by 40%. This is more ambitious than the Copenhagen Accord pledge by far. Should the pledges be allocated again as tradable units in a legally binding agreement, Russia's pledge could result in the creation of new "hot air".

3.8. Japan

3.8.1. Facts

Copenhagen Accord Copenhagen Accord pledge: "Emission reduction in 2020: **25% reduction**, which is premised on the establishment of a fair and effective international framework in which all major economies participate and on the agreement by those economies on ambitious targets; **Base year: 1990**" (26 January 2010).

Table 13: Emissions profile for Japan

	Japan	**EU 27**
CO_2 emissions (2006)		
• Absolute (Gt)	1.2	4.0
• Rank	6	-
• Of global total	4.4%	14.5%
• Per capita (t)	9.9	8.4

Source: http://cait.wri.org

3.8.2. Positions

Japan's highest priority is a multilateral agreement which includes all major emitters. Since the considerable efficiency improvements which Japan achieved prior to 1990 are not reflected in the Kyoto Protocol, it would prefer to have a single protocol approach and does not foresee a second commitment period of the Kyoto Protocol. Japan is emphasising the importance of international review of mitigation commitments.

The pledge under the Copenhagen Accord should be achieved through domestic policies and measures and through offsets, although the shares of both approaches have not yet been determined. Therefore, Japan has a strong interest in a well functioning global carbon market. It supports enhancing the global carbon market through sectoral approaches and focus on streamlined procedures but, in contrast to the EU, less on environmental integrity. Recently it started a bilateral initiative with several developing countries in Asia to explore opportunities for sectoral approach. One aim of this effort is to bypass some of the provisions for existing mechanisms and to include technologies which are currently excluded, such as nuclear or CCS.

In terms of financial support, Japan considers the commitment to jointly mobilise USD 100 billion by 2020 as too high. Despite the announcement to provide USD 9.2 billion for fast-start finance, Japan has contributed little to the discussion on long-term finance so far.

3.8.3. Issues for discussion

Recently Japan has announced its establishment of a levy on aviation tickets. Against this background, Japan could be encouraged to support the EU's proposals of establishing sectoral approaches for international aviation and maritime transport as a means to curb emissions in those sectors and as an innovative source of additional finance.

Due to Japan's reluctance towards a second commitment period of the Kyoto Protocol and its initiatives to create bilateral crediting mechanisms, Japan is regarded as abandoning the multilateral approach. In this sense, Japan might need to develop more flexibility towards a two protocol approach as a way of ensuring real participation of all major emitting countries.

4. POSITION OF NEGOTIATION GROUPS

4.1. G-77 & China

G-77 & China are coordinating common negotiating positions among 130 developing countries. The G-77 positions are presented by the country serving as the chair for each specific negotiation issue. However, as there are a wide range of interests on climate change within the G-77, from AOSIS to OPEC, sub-groups of developing countries (e.g. African Group, AOSIS, LDC, etc.) will also state their positions alongside the G-77 position, or independently if there is no consensus among G-77 members.

Despite difficulties in coordinating common positions on many details, G-77 members share basic views:

- Under the AWG-KP, G-77 wants to avoid a gap between commitment periods and is arguing for a second commitment period from 2013 to 2018, with 1990 as a single base year;
- The current mitigation pledges of Annex I countries are considered insufficient and they call upon all Annex I countries to show leadership through ambitious reduction commitments;
- Regardless of considerable differences in the level of development among the group which often results in conflicting positions, G-77 regularly reiterates the UNFCCC principle of common but differentiated responsibility and warns that re-classification of countries or differentiation amongst developing countries will impede the process of negotiations.

In preparation for Cancun, G-77 has indicated its willingness to accept a comprehensive set of decisions provided that: (1) they are based on the principles of the UNFCCC and in concordance with the Bali Action plan, covering all its elements, (2) a balance between AWG-KP and AWG-LCA is ensured, and (3) the overall objective of a comprehensive, ambitious and legally binding outcome is not compromised.

4.2. AOSIS

The Alliance of Small Island States (AOSIS) is a coalition of small islands and low-lying countries. It was established in 1990, mainly to advocate the interests of Small Island Developing States (SIDS), which are the most affected by sea-level rise resulting from global warming. The group has 42 members, some of which are least developed countries (LDCs). It has always been very active under the UNFCCC.

Based on the scientific fundamentals of climate policy, AOSIS is urgently calling for limiting the global temperature increase to below 1.5°C in order to enable survival of the particularly vulnerable states. AOSIS is requesting that developed countries take ambitious mitigation targets but also supports quantifiable contributions of developing countries. Therefore, AOSIS is a strategic partner, both with regard to the EU's position that advanced developing countries should accept mitigation commitments and with regard to the adoption of a strong legally binding agreement.

Many small island developing states are already faced with the impacts of climate change. To adapt to climate change they seek support in three areas: (1) risk management, such as the “climate proofing” of infrastructure; (2) insurance support for dealing with immediate losses from catastrophic events; and (3) a compensation mechanism to deal with 'slow onset' losses. In addition, funding for implementing adaptation measures is urgently needed, also pre-2013. Many AOSIS countries are therefore calling for financial contributions of developed countries up to 2% of their GDP.

AOSIS advocates an inclusive and transparent structure under the UNFCCC for the new green fund in order to ensure that the voices of small countries are heard. AOSIS wants the terms of reference to be developed in Cancun or by the fund board itself, simply to avoid waiting another six years for the fund can become operational. On fast-start financing AOSIS points to confusion about what contributions are truly additional and calls for more clarity and transparency.

4.3. ALBA countries

The members of the ALBA (the Bolivarian Alliance for the Peoples of our Americas) group (Bolivia, Cuba, Ecuador, Nicaragua and Venezuela) continued with their strong opposition to the Copenhagen Accord. In the sessions in June 2010 they tabled detailed proposals in most negotiation groups under SBI, SBSTA, AWG-LCA and AWG-KP including, inter alia, the following positions:

- Limitation of the global mean temperature increase to well below 1.5° C, ideally stabilising it at 1° C;
- Annex I Parties should commit to an emission reduction of 50% relative to 1990 for a 2nd commitment period of the Kyoto Protocol;
- Developed countries should provide additional financial support at the level of war and defence budgets;
- Strong rejection of any flexible mechanisms and carbon markets;
- Establishment of an Adaptation Fund with a facility to remedy the damages caused by any impacts;
- Polluting countries must directly transfer financial and technological resources to pay for restoration and conservation of forests and jungles, in favour of indigenous peoples and ancestral original social structures;
- Developed countries should assume responsibility towards climate migrants, admitting them to their territories.

With regard to the legal nature of the post-2012 framework, ALBA countries stress the need for a balance between the AWG-KP and the AWG-LCA resulting in a legally binding agreement which addresses all elements of the Bali Action Plan.

5. POSITIONS OF STAKEHOLDER GROUPS

5.1. Environmental NGOs

Civil society is playing an important role in the UNFCCC process. Overall, there are nine different constituencies:

1. Business and industry non-governmental organisations (BINGO)
2. Environmental non-governmental organizations (ENGO)
3. Farmers
4. Indigenous peoples organizations (IPO)
5. Local government and municipal authorities (LGMA)
6. Research and independent non-governmental organizations (RINGO)
7. Trade Unions non-governmental organizations (TUNGO)
8. Women and Gender
9. Youth (YOUNGO)

Environmental organisations have been the most active, coordinated and visible constituencies in the process and are organised into two networks with different focuses.

5.1.1. Climate Action Network (CAN)

The Climate Action Network is a worldwide network of roughly 500 non-governmental organisations working to promote government and individual action to limit human-induced climate change to ecologically sustainable levels. CAN sees COP 16 as a significant stepping stone to a full fair, ambitious and binding deal at COP 17. The CAN position paper includes the following main points (Climate Action Network 2010):

- Developed country emission reductions: At COP 16 developed countries should agree an aggregate reduction target that is more than 40% below 1990 levels by 2020 and should develop zero carbon action plans. Reductions should be monitored, reported and verified through the Kyoto Protocol compliance system with similar obligations for the USA. COP 16 should minimise loopholes in the LULUCF sector, limit the banking of unused AAUs ("hot air") and enhance the environmental integrity of the CDM.
- Developing country mitigation actions: At COP 16 developing countries should agree to produce climate-resilient Low Carbon Action Plans with support from developed countries. A mechanism to match nationally appropriate mitigation actions (NAMAs) with support from developed countries should be established. Overall emission reduction compared to business–as-usual in developing countries should be based on an equitable effort sharing approach between developed and developing countries to be agreed by the COP.

- Finance: COP 16 should establish a governance structure for the new fund that is transparent, regionally balanced and ensures that the COP decides policies, programme priorities and eligibility criteria. COP 17 must agree to implement specific innovative sources of public finance and to a formula of contributions from each developed country. The USD 100 billion commitment from Copenhagen should come from new and additional sources.
- Adaptation: COP 16 must agree an Adaptation Framework to urgently and significantly scale up action at the local, national, regional and international levels and ensure focus on the needs of the poorest and most vulnerable people and ecosystems. An Adaptation Committee should coordinate adaptation efforts.
- Legal Framework: As a minimum the legal mandate should include a second commitment period of the Kyoto Protocol, and a complementary agreement under the LCA track including: comparable mitigation commitments by the United States, financial commitments by developed countries, and developing country action. Both tracks should produce a legally binding and enforceable outcome in accordance with the principle of common but differentiated responsibilities.

5.1.2. Climate Justice Now! / Third World Network

The focus of these two networks lies on equity and development in the context of climate change. Their demands include the unconditional continuation of the Kyoto Protocol and the integration of the Cochabamba *World People's Conference on Climate Change and the Rights of Mother Earth* in the negotiation text. These include the demand to limit global warming to 1°C, a decrease of Annex I GHG emissions by 50% in 2017, the rights of mother earth, the formation of an International Climate Justice Tribunal, a commitment by developed countries to provide 6% of their GDP for climate finance in developing countries, a removal of intellectual property rights and the opposition to any new market mechanisms.

5.2. ICAO

The main issue at the 37th session of the Assembly of the International Civil Aviation Organization from 28 September to 8 October 2010 in Montreal was addressing greenhouse gas emissions from international aviation. In the assembly resolution States committed themselves to:

- a global annual average fuel efficiency improvement of 2 percent up to 2020 and an aspirational global fuel efficiency improvement rate of 2 percent per annum from 2021 to 2050;
- striving to achieve a medium-term goal to stabilise emissions at 2020 emission levels;
- taking the special circumstances and respective capabilities of developing countries into account; to this extent, the resolution requested the ICAO council to develop processes and mechanisms to facilitate the provision of technical and financial assistance to developing countries;
- submitting action plans on activities to reduce GHG emissions (states whose airlines are responsible for less than 1% of the global revenue ton kilometres (RTK) from international aviation are exempt from this obligation); and

- engaging in constructive bilateral and/or multilateral consultations and negotiations on the design and implementation of market-based mechanisms.

ICAO resolutions do not have a legally binding character and are mainly an expression of intent. Several countries including the EU have submitted reservations to specific aspects of the resolution.

From the **EU**'s perspective, the resolution is a weak but improved outcome compared to the assembly in 2007. The resolution recognises the need to limit emissions from international aviation even if the targets are much below the ambition of the EU. A non-binding fuel efficiency improvement of 2% is only slightly better than historic efficiency improvements in this sector and therefore close to the business-as-usual scenario. Effectively, the resolution implies that aviation emissions will increase by 70% compared to 2005 levels before the aspirational stabilisation takes effect in 2020. The resolution recognises that some countries might take more ambitious action. The 2007 resolution called for mutual consent from all governments whose airlines where covered by GHG measures which – in practice – would have blocked any action such as the inclusion of aviation into the EU ETS in a non-distortive manner. With the new resolution it is sufficient for the EU to engage in constructive consultations and there is no longer a need for agreement. A major weak point of the resolution is the exemption criteria which effectively only obligates 22 countries to submit action plans. Eight of these are developing countries (China, UAE, Republic of Korea, Singapore, India, Thailand, Malaysia and Qatar). Below the threshold are many Member States such as Italy, Portugal, Finland, Austria and Belgium. The resolution is legally non-binding and does not include any concrete actions by specific countries; it therefore does not qualify for the exemption of incoming flights from third countries under the EU ETS which is applied if equivalent measures are taken by these countries.

In the negotiations during and prior to the ICAO assembly, the **Nigerian** chair played a crucial role for reaching agreement. He convinced many **African countries** to speak in favour of the draft resolution ensuring sufficient votes in the ICAO executive council and the assembly. **China, Saudi Arabia, Argentina, Brazil** and **Cuba** were amongst the countries most opposed to any outcome addressing emissions from developing countries, citing the principle of common but differentiated responsibilities under the UNFCCC.

5.3. IMO

The 61st meeting of the Marine Environment Protection Committee (MEPC 61) was held in London from 27th September to 1st October 2010. Reducing greenhouse gas emissions from maritime transport was by far the most contentious issue on the agenda and took up the majority of the plenary time. Opposition to progress on addressing GHG emissions was led by **China**, **India** and **Saudi Arabia**. These countries were supported firmly by many other Developing States, notably **Brazil**, **South Africa**, **Argentina**, the **ALBA** countries and several **Middle Eastern countries**. **India** presented its own submission, arguing that maritime transport should not be addressed before a broader post-2012 agreement has been reached in the UNFCCC. The MEPC discussed greenhouse gas emissions in the context of efficiency standards for new ships and a possible market-based measure.

Despite the tradition that IMO regulates international maritime transport on the basis of 'no more favourable treatment' to ensure a level playing field, many developing states argued that measures applying to them would be 'unfair' and quoted the UNFCCC principle of 'common but differentiated responsibilities'. China had put considerable pressure on many developing countries to support them both here in IMO and also in ICAO.

5.3.1. Market-based mechanisms

There was much discussion about the uncertainties and other problems with market-based mechanisms (MBM) in general and in the shipping sector in particular. Firm opposition to the concept of a global mechanism was expressed by **South Africa**, **India**, **Venezuela**, **Brazil**, **Chile and China** amongst others, based mainly on the belief that such a measure will impact negatively on their economic development. Many argued that if a MBM is considered, the UNFCCC principle of 'common but differentiated responsibilities' must be a key element. Some states (e.g. **Panama)** called for a delay in the IMO process to consider MBM. **Russia** argued that IMO should limit itself to technical and operational mechanisms.

There was strong support for the further development of a MBM from some **EU** states as well as **Australia**, **New Zealand**, **Norway.** The Norwegian domestic emissions trading scheme has successfully included domestic maritime transport since July 2010. It was agreed that an intersessional meeting dedicated to MBM will be held in March 2011. The terms of reference will make it difficult for this meeting to achieve significant progress. The intersessional meeting will examine, inter alia, the MBM proposals in relation to the principles and provisions of relevant conventions, i.e. the applicability of UNFCCC principles in the IMO.

Any progress on a market-based mechanism in IMO is expected to be very difficult and slow.

5.3.2. Energy Efficiency Design Index EEDI

The **EU**'s objective, supported by **Norway**, **USA**, **Canada** and **Australia amongst others**, was to prepare and 'circulate' a revision of MARPOL Annex VI to include a mandatory design standard called Energy Efficiency Design Index (EEDI) for most new ships. Circulation is a prerequisite for adoption of the standard at the next MEPC in July 2011.

China proposed that the measures should only be voluntary for developing countries. Developing countries including **Saudi Arabia**, **Ecuador**, **Qatar**, **North Korea**, **India**, **Bangladesh**, **Peru**, **Sri Lanka** supported this position. China's proposals also included developing further measures on technology transfer and asking for the political aspects to be considered. **Brazil** proposed an eight-year 'phase in' period for developing countries, which received some support from **Nigeria**, **Angola**, **Kenya**, **Ghana**, **Argentina** and the **Philippines**.

Norway, the **United States**, **Russia**, many **EU Member States**, **Japan** and **Israel** all spoke against the Chinese proposal. China conceded that these countries constituted a small majority.

The Chair decided to avoid voting by noting that Parties are able to circulate an amendment themselves. Norway and France have already announced that they intend to circulate the amendment and other countries have expressed their interest to join them. For adoption, a positive vote of two thirds of the ratifiers of MARPOL Annex VI is needed. Apparently **China** is contacting small developing countries to ratify MARPOL Annex VI so that they can vote against the EEDI.

The EEDI, if adopted in its current form, would lead to approximately 20% reductions from business-as-usual by 2030. International maritime GHG emissions would still be expected to double by 2030.

5.4. GEF

The Global Environment Facility (GEF) is a global partnership among 182 countries, international institutions, non-governmental organisations, and the private sector to address global environmental issues while supporting national sustainable development initiatives (GEF 2010). It provides grants for projects related to six focal areas: biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants. As the financial mechanism of the UNFCCC, the GEF allocates and disburses hundreds of millions of dollars per year in projects on energy efficiency, renewable energy, sustainable urban transport and sustainable management of land use, land-use change, and forestry. The GEF also manages two separate, adaptation-focused funds under the UNFCCC — the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), which mobilise funding specifically earmarked for activities related to adaptation, and the latter also to technology transfer.

The atmosphere amongst many developing countries towards the GEF was very negative during the Copenhagen Conference but has become more positive again in 2010. The reforms to the GEF-5 which have been agreed together with the replenishment fell short of the expectations of many countries. Instead, the GEF Council is looking for input from the UNFCCC on the necessary reforms.

The GEF produced a detailed report to COP 16 (GEF 2010). Two main points include:

- During the GEF-4 period, the GEF Secretariat implemented a number of key reforms directed towards improving the effectiveness and efficiency of the partnership. Allocation of the funds to LDCs and SIDS has increased to 18.4 percent of all resources in GEF-4 from 12 percent in GEF-3. The processing time has been reduced from 44 months to an average of 16 months.
- Negotiations for the GEF-5 replenishment came to a successful conclusion with 35 donors pledging USD 4.34 billion for the GEF-5 period (July 1, 2010, to June 30, 2014), of which approximately USD 1.4 billion will be programmed under the agreed climate change mitigation strategy. The Russian Federation joined as a new donor to the GEF, and Brazil, following on its pledge to GEF-4, re-engaged as a donor with a significant GEF-5 contribution. As contributing participants significantly increased their contributions, total new donor funding for the GEF increased by 54 percent compared to GEF-4.

5.5. IPCC

The main topics for the Intergovernmental Panel on Climate Change (IPCC) at the moment are the internal reform of the IPCC as a response to public criticism and mistakes found in reports and the work on the 5th Assessment Report. These issues were also the main topics of the recent IPCC plenary meeting in October 2010 in Korea.

While there were some substantive errors in the 4th Assessment Report, much of the criticism of the IPCC was politically motivated and fuelled by the initial reaction of the IPCC. The new procedures are designed to improve the quality of the report, enhance transparency and establish a process to evaluate potential errors.

An Inter Academy Council was established to propose improvements to the IPCC procedures. Some changes were already adopted at the last IPCC plenary and four task groups for "management", "conflicts of interest", "communication" and "procedures" were established which aim at elaborating further reforms. These groups shall elaborate proposals for adoption at the next plenary meeting.

Revised guidelines for the evaluation of scientific sources and uncertainties were presented in a draft and will be further elaborated for the next plenary meeting. Guidelines for the use of literature were adopted and a procedure for the deadline with mistakes shall be developed.

The plenary adopted a structure for the synthesis report of the 5th Assessment report (AR5) and a revised timeline. The adopted structure is based on recommendations from two expert meetings held for this purpose. One of the areas of conflict was whether the assessment report should address the objective of the UNFCCC, the stabilisation of GHG emissions at a level that avoids dangerous anthropogenic consequences in a separate section. This will now only be communicated in a text box.

The AR5 will once again be prepared by three Working Groups:

- WG1: The Physical Science Basis
- WG2: Impacts, Adaptation, and Vulnerability
- WG3: Mitigation of Climate Change

To ensure consistent assessment across all working groups a number of cross-cutting issues will be addressed jointly. The AR5 is scheduled for publication in 2014.

The IPCC Special report on Renewable Energy Sources and Climate Change Mitigation will be distributed for government review in November 2010 and is expected to be adopted in May 2011.

6. GLOSSARY

6.1. Understanding the agenda and the daily programme

- The **Conference of the Parties (COP):** the supreme body of the Convention, that is, its highest decision-making authority. It is an association of all the countries that are Parties to the Convention.
- The **meeting of the Parties (CMP):** the Conference of the Parties serves as the meeting of the Parties to the Kyoto Protocol (CMP). The CMP meets during the same period as the COP. Parties to the Convention that are not Parties to the Protocol are able to participate in the CMP as observers, but without the right to take decisions. The functions of the CMP relating to the Protocol are similar to those carried out by the COP for the Convention.
- The **Subsidiary Body for Scientific and Technological Advice (SBSTA)** is one of the two permanent subsidiary bodies established under the Convention. The SBSTA's task is to provide the COP with advice on scientific, technological and methodological matters.
- The **Subsidiary Body for Implementation (SBI)** is one of the two permanent subsidiary bodies established under the Convention. SBI gives advice to the COP on all matters concerning the implementation of the Convention.
- **Ad-hoc Working Group on further commitments for Annex I Parties under the Kyoto Protocol (AWG-KP):** at the United Nations Climate Change Conference in 2005, Parties to the Kyoto Protocol initiated a process to consider further commitments by Annex I Parties for the period beyond 2012. The resulting decision established an open-ended ad hoc working group of Parties to the Kyoto Protocol to conduct that process and report to each session of the CMP on the status of this process.
- **Ad-hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA):** the United Nations Climate Change Conference in 2007 culminated in the adoption of the Bali Road Map which consists of a number of forward-looking decisions that represent the various tracks that are essential to strengthening international action on climate change. Central to the Bali Road Map is the establishment of a two-year process to enable full and effective implementation of the Convention. This is taking place in a new negotiating group called the AWG-LCA, which is to reach an agreed outcome by 2010.
- **Annex I Parties:** The industrialized countries listed in this annex to the Convention which were committed return their greenhouse-gas emissions to 1990 levels by the year 2000 as per Article 4.2 (a) and (b). They have also accepted emissions targets for the period 2008-12 as per Article 3 and Annex B of the Kyoto Protocol. They include the 24 original OECD members, the European Union, and 14 countries with economies in transition. (Croatia, Liechtenstein, Monaco, and Slovenia joined Annex 1 at COP-3, and the Czech Republic and Slovakia replaced Czechoslovakia.)
- **Non-Annex I Parties:** Refers to countries that have ratified or acceded to the United Nations Framework Convention on Climate Change that are not included in Annex I of the Convention. Includes developing countries and emerging countries.

6.2. Negotiation formats

- **Contact group:** An open-ended meeting that may be established by the COP, a subsidiary body or a Committee of the Whole wherein Parties may negotiate before forwarding agreed text to a plenary for formal adoption. Observers generally may attend contact group sessions.
- **Drafting group:** A smaller group established by the President or a Chair of a Convention body to meet separately and in private to prepare draft text -- text which must still be formally approved later in a plenary session. Observers generally may not attend drafting group meetings.
- **Friends of the chair:** Delegates called upon by the Chair (who takes into account the need for political balance among various interests) to assist in carrying out specific tasks.
- **Informal contact group:** A group of delegates instructed by the President or a Chair to meet in private to discuss a specific matter in an effort to consolidate different views, reach a compromise, and produce an agreed proposal, often in the form of a written text.

6.3. Types of documents

- **L. docs:** In-session documents that contain draft reports and texts for adoption by the COP or its subsidiary bodies.
- **Miscellaneous documents (misc. docs):** Documents issued on plain paper with no UN masthead. They generally contain views or comments published as received from a delegation without formal editing.
- **Non-paper:** An in-session document issued informally to facilitate negotiations. A non-paper does not have an official document symbol. It may have an identifying number or carry the name of its author.

6.4. Negotiating groups

- **ALBA Bolivarian Alliance for the Peoples of Our America** (Spanish: Alianza Bolivariana para los Pueblos de Nuestra América, or ALBA): is an international cooperation organization based on the idea of social, political, and economic integration between the countries of Latin America and the Caribbean. It is associated with socialist and social democratic governments and is an attempt at regional economic integration based on a vision of social welfare opposing to markets and trade liberalization as with free trade agreements. The agreement was initially proposed by the government of Venezuela, led by Hugo Chávez, as an alternative to the Free Trade Area of the Americas as proposed by the US. When it was launched, ALBA had two member states, Venezuela and Cuba. Subsequently 6 other countries Bolivia, Ecuador, Nicaragua, the Caribbean island nation of Dominica, Saint Vincent and the Grenadines, Antigua and Barbuda,

- **Alliance of Small Island States (AOSIS):** An ad hoc coalition of low-lying and island countries. These nations are particularly vulnerable to rising sea levels and share common positions on climate change. The 43 members and observers are American Samoa, Antigua and Barbuda, Bahamas, Barbados, Belize, Cape Verde, Comoros, Cook Islands, Cuba, Cyprus, Dominica, Dominican Republic, Federated States of Micronesia, Fiji, Grenada, Guam, Guinea-Bissau, Guyana, Haiti, Jamaica, Kiribati, Maldives, Marshall Islands, Mauritius, Nauru, Netherlands Antilles, Niue, Palau, Papua New Guinea, Samoa, Sao Tome and Principe, Seychelles, Singapore, Solomon Islands, St. Kitts & Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Tonga, Trinidad and Tobago, Tuvalu, US Virgin Islands, and Vanuatu.
- **Environmental Integrity Group:** A coalition or negotiating alliance consisting of Mexico, the Republic of Korea, and Switzerland.
- **Group of 77 (G-77) and China:** A large negotiating alliance of developing countries that focuses on numerous international topics, including climate change. The G-77 was founded in 1967 under the auspices of the United Nations Conference on Trade and Development (UNCTAD). It seeks to harmonize the negotiating positions of its 131 member states.
- **Umbrella group:** A loose coalition of non-European Union developed countries formed following the adoption of the Kyoto Protocol. Although there is no formal membership list, the group usually includes Australia, Canada, Iceland, Japan, New Zealand, Norway, the Russian Federation, Ukraine, and the United States.

6.5. Institutions under the UNFCCC

- **Adaptation Fund:** The Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol. The Fund is to be financed with a share of proceeds from clean development mechanism (CDM) project activities and receive funds from other sources.
- **Executive Board of the Clean Development Mechanism**: A 10-member panel elected at COP-7 which supervises the CDM and has begun operation in advance of the Protocol's entry into force.
- **Compliance Committee:** A committee that helps facilitate, promote and enforce on compliance with the provisions of the Kyoto Protocol. It has 20 members with representation spread among various regions, small-island developing states, Annex I and non-Annex I parties, and functions through a plenary, a bureau, a facilitative branch and an enforcement branch.
- **Consultative Group of Experts on National Communications from non-Annex I Parties:** A panel established to improve the preparation of national communications from developing countries. National communications are an obligation of Parties to the Climate Change Convention.
- **Expert Group on Technology Transfer (EGTT):** An expert group established at COP7 with the objective of enhancing the implementation of Article 4.5 of the Convention, by analyzing and identifying ways to facilitate and advance technology transfer activities under the Convention
- Joint Implementation Supervisory Committee (JISC): The JISC is, under the authority and guidance of the CMP, responsible for the governance of the JI and has 10 members from Parties to the Kyoto Protocol.

- **Special Climate Change Fund (SCCF):** The SCCF was established to finance projects relating to adaptation; technology transfer and capacity building; energy, transport, industry, agriculture, forestry and waste management; and economic diversification. This fund should complement other funding mechanisms for the implementation of the Convention. The Global Environment Facility (GEF), as the entity that operates the financial mechanism of the Convention, has been entrusted to operate this fund.

6.6. Other key terms

- **Bunker fuels:** A term used to refer to fuels consumed for international marine and air transport.
- **Clean Development Mechanism (CDM):** A mechanism under the Kyoto Protocol through which developed countries may finance greenhouse-gas emission reduction or removal projects in developing countries, and receive credits for doing so which they may apply towards meeting mandatory limits on their own emissions.
- **Joint Implementation (JI):** Jointly implemented projects that limit or reduce emissions or enhance sinks are permitted among developed countries under Article 6 of the Kyoto Protocol. JI allows developed countries, or companies from those countries, to cooperate on projects to reduce greenhouse gas emissions and share the emissions reduction units (ERUs). As JI occurs between Annex B countries (who have emissions caps), no new emissions units are generated (unlike the case with projects under the CDM).
- **Least Developed Countries (LDCs):** The World's poorest countries. The criteria currently used by the Economic and Social Council (ECOSOC) for designation as an LDC include low income, human resource weakness and economic vulnerability. Currently 50 countries have been designated by the UN General Assembly as LDCs.
- **Least Developed Countries Expert Group (LEG):** A panel of 12 experts which provides advice to LDCs on the preparation and implementation of national adaptation programmes of action (NAPAs) -- plans for addressing the urgent and immediate needs of those countries to adapt to climate change.
- **Least Developed Country Fund (LDCF):** The LDCF is a fund established to support a work programme to assist Least Developed Country Parties to carry out, inter alia, the preparation and implementation of national adaptation programmes of action (NAPAs). The Global Environment Facility, as the entity that operates the financial mechanism of the Convention, has been entrusted to operate this fund.
- **National adaptation programmes of action (NAPAs):** Documents prepared by least developed countries (LDCs) identifying urgent and immediate needs for adapting to climate change. The NAPAs are then presented to the international donor community for support.
- **National communication:** A document submitted in accordance with the Convention (and the Protocol) by which a Party informs other Parties of activities undertaken to address climate change. Most developed countries have now submitted their fourth national communications; most developing countries have completed their first national communication and are in the process of preparing their second.
- **Quantified Emissions Limitation and Reduction Commitments (QELROs):** Legally binding targets and timetables under the Kyoto Protocol for the limitation or reduction of greenhouse-gas emissions by developed countries.

REFERENCES

- AGF 2010: Report of the Secretary-General's High-level Advisory Group on Climate Change Financing, 5 November 2010. http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/AGF_Final_Report.pdf
- Belgium 2010: Scientific Perspectives after Copenhagen. Information Reference Document. http://www.climatechange.be/IMG/pdf/ScientificPerspectivesAfterCopenhagen_4October2010_web.pdf
- Brazil. Ministry of Science and Technology 2010: Second National Communication of Brazil to the United Nations Framework Convention of Climate Change.
- Climate Action Network 2010: Cancun Building Blocks. http://www.climatenetwork.org/publication/cancun-building-blocks
- den Elzen, M.G.J. and Höhne, N. 2008: Reductions of greenhouse gas emissions in Annex I and non Annex I countries for meeting concentration stabilisation targets: an editorial comment. Climate Change 91, 249-274.
- Duscha V., Graichen J. et al: Post-2012 climate regime – How industrial and developing nations can help to reduce emissions – assessing emission trends, reduction potentials, incentive systems and negotiation options. http://www.umweltdaten.de/publikationen/fpdf-l/3954.pdf
- EC (European Commission) 2009: Staff Working Document accompanying the Communication from the Commission to the European Parliament, the Council, the European Social and Economic Committee and the Committee of the Regions: Towards a comprehensive climate change agreement in Copenhagen, Extensive Background Information and Analysis, Part 1 & 2, COM(2009) 39 final, 28. Januar 2009.
- EEA (European Environment Agency) 2010: Tracking progress towards Kyoto and 2020 targets in Europe. EEA report No 7/2010.
- EU (European Union) 2010a: Written Statement of Reservation by Belgium on behalf of the European Union (EU), its 27 ember States, and the 17 other states Members of the European Civil Aviation Conference (ECAC) on Resolution A37-17/2: Consolidated Statement of continuing ICAO Policies and Practices related to Environmental Protection – Climate Change.
- EU (European Union) 2010b: Presentation held by Artur Runge-Metzger at AWG-KP workshop on the scale of emission reductions to be achieved by Annex I Parties in aggregate and the contribution of Annex I Parties, individually or jointly to this scale, 2 August 2010, Bonn, Germany. http://unfccc.int/files/kyoto_protocol/application/pdf/awg_europeanunion.pdf
- GEF 2010: Report of the GEF to the sixteenth Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change. http://www.thegef.org/gef/sites/thegef.org/files/documents/document/GEF_COP16_Report.pdf

- Hare, B., Chen, C., Schaeffer, M 2010: Overview of quantification of Annex I proposals for 2020 emission targets. Presentation held at AWG-KP workshop on the scale of emission reductions to be achieved by Annex I Parties in aggregate and the contribution of Annex I Parties, individually or jointly to this scale, 2 August 2010, Bonn, Germany. http://unfccc.int/files/kyoto_protocol/application/pdf/potsdaminstitute.pdf
- ICAO 2010: Report of the Executive Committee on Agenda Item 17 (Section on Climate Change). A37-WP/402, P/66, 7/10/10
- IEA (International Energy Agency) 2010: World Energy Outlook 2010. Paris
- IPCC 2007: Climate Change 2007: Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland
- IPIECA (International Petroleum Industry Environmental Conservation Association) 2007: Climate Change - A Glossary of Terms, 4th Edition, London
- Mexico 2010: Líneas generales de posicionamiento de México. http://www.cc2010.mx/es/acciones-de-mexico/lneas-generales-de-posicionamiento-de-mxico/ accessed on 15 November 2010.
- PointCarbon 2010: EU to say it is on track to meet climate-funding pledge. 12 October 2010. www.pointcarbon.com
- Rogelj, J., Nabel, J., Chen, C., Hare, W., Markmann, K. ,Meinshausen, M., Schaeffer, M., Macey, K. and Höhne, N. (2010). Copenhagen Accord pledges are paltry. Nature 464, 1126-1128.
- TET (The Economic Times) 10 November 2010: India proposes new emission check system. http://economictimes.indiatimes.com/news/politics/nation/India-proposes-new-emission-check-system/articleshow/6898182.cms
- UNFCCC (United Nations Framework Convention on Climate Change) 2010a: Appendix II to the Copenhagen Accord – Nationally appropriate mitigation actions of developing country Parties. http://unfccc.int/home/items/5265.php (accessed on 22. November 2010)
- UNFCCC (United Nations Framework Convention on Climate Change) 2010b: CDM in Numbers. http://cdm.unfccc.int/Statistics/Issuance/CERsIssuedByHostPartyPieChart.html (12.11.2010 14:53)
- WWF 2010a: WWF recommendations for the Cancun Package. http://assets.panda.org/downloads/wwf_expectations_for_cancun_package.pdf
- WWF 2010b: WWF key country demands for Cancun. http://assets.panda.org/downloads/final_wwf_key_country_asks_for_cancun_oct_30_2010.pdf

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