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The development of climate negotiations in view of Durban (Cop 17)

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EUROPEAN PARLIAMENT

DIRECTORATE GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

The development of climate negotiations in view of Durban (COP 17)

STUDY

Abstract

This report provides an overview of the development of the negotiations within the UNFCCC since COP 17 in Durban. It summarises the key developments in 2011 and provides short overviews for all negotiation areas. The overview also includes a state of play of the Cancún Agreement 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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AAU	Assigned Amount Unit
AGF	high-level advisory group on finance appointed by the United Nations Secretary General
ALBA	Bolivarian Alliance for the Peoples of our Americas
AOSIS	Alliance of Small Island States
ARD	Afforestation, reforestation, deforestation
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 Cooperative Action under the Convention
BAP	Bali Action Plan
BAU	Business as usual
CA	Copenhagen Accord
CBDR	common but differentiated responsibilities
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
EB	Executive Board (EB) of the CDM
EC	European Commission

EU	European Union
EU ETS	European Union Emissions Trading Scheme
FAA	Framework for Action on Adaptation
FMRL	forest management reference level
G-77	Group of 77
GCAP	Global Climate Adaptation Partnership
GCCA	Global Climate Change Alliance
GCF	Green Climate Fund
GDP	Gross domestic product
GEF	Global Environmental Facility
GHG	Greenhouse gas
Gt	Giga tonnes
GW	Giga watt
HFC	Hydrofluorocarbons
IAR	International assessment and review
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
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
MEPC	Marine Environment Protection Committee under the IMO
MRV	Measurement, Reporting and Verificaton
NAMA	Nationally Appropriate Mitigation Action
NAPA	National Adaptation Plans of Action
NDRC	National Development and Reform Commission (China)
NGO	Non-governmental organization
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OECD DAC	OECD Development Assistance Committee
OPEC	Organization of Petroleum Exporting Countries
RD&D	Research, development and deployment
REDD	Reducing emissions from deforestation and degradation
REDD+	Reducing emissions from deforestation and forest degradation and for promoting conservation, sustainable management of forests and enhancement of forest carbon stocks
REEEP	Renewable Energy & Energy Efficiency Partnership
SC	Standing Committee (see section 2.4.2)
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SIDS	Small island developing state
t	Tonne
TC	Transitional Committee (see 2.4.2)

TEC	Technology Executive Committee
TM	Technology Mechanism
UNFCCC	United Nations Framework Convention on Climate Change

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EXECUTIVE SUMMARY

All Parties aim at a “balanced package of decisions” in Durban, however they considerably diverge regarding the content of such a balanced package.

The three main challenges on the table for Durban are what Parties agree in relation to a second commitment period of the Kyoto Protocol, whether they can adopt a mandate or "roadmap" for a global and comprehensive legally binding framework for all Parties, and whether they are able to achieve decisions implementing the Cancún Agreements.

It is rather unlikely that some type of legally binding outcome – either a second commitment period under the Kyoto Protocol or more comprehensive new legally-binding agreement - can be achieved in Durban because the USA will not agree with legally-binding emission reduction targets under the current political situation. Without the USA, also big emitters from emerging countries will not go ahead with emission reduction commitments. There is considerably divergence among Parties about the type of a legal agreement and the role of the Kyoto Protocol in such an agreement and about the appropriate ambition of mitigation reductions.

Expectations for Durban are that a balanced package of decisions will outline a process that generates a legally binding outcome for all Parties in a mid-term perspective (potentially by 2015) in parallel to an agreement on the continuation of the Kyoto Protocol. Related to the implementation of the Cancún agreement, the most important issues are the sources of long-term finance and the of implementation of the Green Climate Fund, the transparency in the implementation of Parties' emission reduction pledges and whether common international accounting rules will be decided as well as the implementation of the agreed enhanced rules for monitoring, reporting and verification (MRV) for Annex I and Non-Annex I Parties.

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

- the balance between decisions related to the continuation of the Kyoto Protocol beyond the first commitment period and a mandate for a new legally binding international agreement under AWG-LCA covering also the USA and key emerging countries;
- further decisions related to the implementation of the Cancún agreement, in particular:
    - on the operationalization of the Green Climate Fund;
    - a work programme on long-term financial support, addressing innovative sources of finance;
    - Acknowledgement and quantification of the “ambition gap” between the current pledges and the necessary emission reductions and identify options of potential means to address the gap and to increase the level of ambition;
    - the further implementation of the review process in 2013-2015 in which the overall ambition of mitigation action will be assessed;
    - decisions related to an international accounting framework of emission reductions for Annex I Parties, in particular common rules related to market mechanism and the use of sinks;

- decisions on the elements of MRV for developing countries, e.g. related to the reporting of biennial reports, to international consultation and analysis of these reports of Non-Annex I Parties and the establishment of a registry for nationally appropriate mitigation actions (NAMAs);
- the further implementation of a REDD+ mechanism to reduce deforestation in developing countries;
- decisions on new market mechanism at sectoral level that go beyond current CDM projects in developing countries;
- the further implementation and operationalization of institutions established in the Cancún agreement (adaptation committee, Technology Executive Committee, Climate Technology Centre and Network, Standing Committee related to coordination on finance)

At the last Panama meeting of the AWG-LCA a set of draft texts for Durban were produced that covered most of the important elements (i.e. shared vision, mitigation, MRV, adaptation, technology, finance, capacity-building, and legal options). Parties showed constructive engagement and willingness to make progress, and the Durban package started to take shape. However, divergences remain on all issues and the draft texts contain many options and brackets. Also many of the highly controversial issues, which were not incorporated in the Cancún agreement, were re-introduced in the discussions, especially on trade and intellectual property rights and potential consequences of response measures. Obviously, and a lot of work is necessary before to identify and work out compromises.

1. GENERAL ISSUES IN CLIMATE NEGOTIATIONS BETWEEN CANCÚN AND DURBAN

1.1. Introduction

The aim of this study is to prepare the European Parliament delegation and other interested persons for the upcoming UNFCCC Conference of the Parties (COP 17) in Durban, South Africa, from 28 November to 9 December 2011. 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 2011, starting with the results from the previous COP in Cancún and looking at the progress made in the three negotiation sessions during 2011 prior to Durban. Chapter 2 addresses the main issues in the negotiations which are the legal form of a future agreement, mitigation commitments, monitoring, reporting and verification, finance, deforestation, flexible mechanisms, emissions from international transport, technology transfer, adaptation and capacity building. The third chapter introduces the main negotiating Parties apart from the EU and gives an overview over their positions. Chapters 4 and 5 describe 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 16 in Cancún

The Cancún Agreement (Decision 1/CP.16) includes the following political agreement:

- Recognition of the long-term objective to limit global temperature increase to below 2°C above preindustrial levels;
- A review of the long-term objective and the progress to achieve it 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 implement the quantified economy-wide emissions targets for 2020, which were submitted in January 2010 to the UNFCCC. These pledges were included in an UNFCCC information document which is not a legally binding commitment;
- Developed country Parties are urged to increase the ambition of their economy-wide emission reduction targets, because the aggregate commitments do not achieve the global emission reduction necessary to achieve the 2 degree objective.
- Developing countries committed to implementing nationally appropriate mitigation actions (NAMAs), including those that were submitted to the secretariat by 31 January 2010. Developed countries enhanced financial support for the preparation and implementation of these NAMAs.
- A registry to record NAMAs seeking international support will be set up to facilitate matching of support for these actions;

- For measurement/monitoring, reporting and verification (MRV) of Annex I Parties, it was agreed that they should submit biennial reports on the mitigation progress achieved and on the support provided and that a new process called 'international consultation and analysis' (ICA) should assess the mitigation process;
- For MRV of Non-Annex I Parties, it was agreed that they should submit a biennial update report, including a national inventory report and information. 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 Cancún agreement 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. The future of the Kyoto Protocol

Since Cancún, the pressure from developing countries on Annex I Parties to agree to a 2nd commitment period has increased further. In negotiations and statements prior to COP 17, the issue of a fully-fledged second commitment period under the Kyoto Protocol, as a pre-requisite for the Durban outcome is omnipresent in most statements from developing countries, in particular of BASIC countries (Brazil, South Africa, India & China) and of environmental NGOs.

Many other Annex I Parties (USA, Russian Federation, Japan) clearly indicated that they will not participate in a 2nd commitment period under the Kyoto Protocol. With such limited participation (EU, Norway, Switzerland; Australia, New Zealand), the Kyoto Protocol would only cover about 16% of global emissions. Thus a second commitment period with such reduced participation would not be able to achieve the globally necessary emission reductions.

The EU does not oppose a second commitment period, but emphasizes that a possible second commitment period could only be considered in a broader perspective, i.e. within a mandate/roadmap for a new legal framework for all Parties and with improved and complete rules under the Kyoto Protocol (in particular related to LULUCF). The EU favours a transition period with a continued de facto/political application of the Kyoto rules, and continued to express its commitment to the Kyoto Protocol.
The Kyoto Protocol in this approach would be the core rules-based basis for the development of a more comprehensive international agreement which would be developed in a longer-term time horizon.

At technical level, the discussions related to the Kyoto Protocol in 2011 focus on the accounting of land use, land use change and forestry (LULUCF), on market mechanisms, especially new market-based mechanisms, on the quantified emission reduction objectives (QELRO), and on the carry over of assigned amount units (AAUs) to subsequent commitment periods (see further details on these issues in separate section below).
At the last session in Panama, the African Group presented a new option comprising a cap on carry over (1% of assigned amount), own use for domestic compliance, as well as earmarking of revenues of sold units for mitigation (greening) and the Adaptation Fund. In addition, the Rainforest Coalition of Parties, led by Papua New Guinea put forward a proposition for a new market-based REDD+ mechanism.

1.4. Legal nature of a new 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 2011.

The EU continued pursuing the objective of a single legally binding agreement and to integrate the Kyoto Protocol into such agreement. This one legally binding agreement would include developing countries, the US as well as Kyoto Parties. The Kyoto Protocol would be part of this one overarching agreement.

However, such a legally binding agreement cannot yet be achieved in Durban, therefore the EU favours a transition period in which Kyoto rules continue based on COP decisions and a new mandate is provided to develop a new more comprehensive legally-binding instrument. In Panama many developing countries, including small island states, the least developed countries, and progressive developing countries (Colombia, Bangladesh, Indonesia) supported such mandate. China and India were not in favour of such transition to a new instrument, but different to earlier sessions, did not prevent the discussion from happening. The US insisted on the need for symmetry between developed and developing country Parties' commitments.

However, in general developing countries mostly strongly push for the continuation of the Kyoto Protocol, and not to a new type of international agreement that encompasses all Parties. 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 favours a pledge- and review system as included in the Copenhagen Accord and the Cancún agreement and does not want to formalize any agreement beyond such system.

1.5. Negotiation process in 2011

The negotiation process in 2011 started in a very difficult way with the AWG meeting in Bangkok in April, where the entire meeting was spent on the discussion of the agenda and where no progress could be achieved at all. The negotiation session in June in Bonn faced similar problems related to discussions on the SBI agenda and again a lot of negotiation time was lost. However, in Bonn a constructive exchange of views on all the important areas took place. The last AWG meeting in Panama represented intensive negotiations on all issues and resulted in constructive negotiations and produced elements for negotiating texts on all items. However, these negotiation texts still include a lot of disagreement and divergence among Parties and it will be very challenging to resolve the large number of disagreement within two weeks in Durban.

Apart from the key questions on the future of the Kyoto protocol and the legal nature of a future international agreement the negotiation process in 2011 focused on the implementation of the Cancún agreements in the following areas:

- Mitigation in Annex I Parties: the clarification of mitigation pledges in several workshops, the gap between pledges and the overall 2 degree objective and process how to increase the level of ambition (see specific presentation in section 2.1);
- MRV in Annex I Parties: Guidelines for biennial reports on progress in mitigation action and guidelines for a process of International Assessment on Review of the biennial reports, discussion on accounting framework (see specific presentation in section 2.2);
- Mitigation in Non-Annex I parties: the clarification of pledged nationally appropriate mitigation action (NAMAs) (see specific presentation in section 2.2);
- MRV in Non-annex I Parties: Guidelines for biennial reports with GHG inventories and progress in the implementation of NAMAs, guidelines for a process of international consultation and analysis of biennial reports, guidelines on a registry for NAMAs and related support (see specific presentation in section 2.3).
- The operationalization of the Green Climate Fund (GCF) and discussions on long-term finance ((see specific presentation in section 2.4)

- Further implementation of a REDD+ mechanism and financing of REDD+ (see specific presentation in section 2.5)
- The implementation of the Cancún agreement in relation to adaptation (section 2.10), technology transfer (section 2.9) and capacity building (section 2.11).

The negotiations in 2011 also covered some of the issues that were important to the EU, but not included in the Cancún decisions, in particular new flexible mechanisms (section 2.7) and emissions from international aviation and marine sectors (section 2.8).

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

In 2011 the public debate is dominated by the financial crisis and an increase in the ambition of mitigation targets, an enhanced mitigation burden for developed countries and additional commitments to long-term financial support are clearly not top priorities for many governments of developed countries. 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.

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. In the negotiations the change in global economic and geo-political power has become more obvious. BASIC countries and in particular China gained and kept considerable influence in the negotiations. This is also due to the strongly growing importance of Chinese investments in African and Asian countries.

The outcome in Durban 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. In the USA there is no improved backing of climate policy in the public compared to Cancún that allows the US administration to accept a stringent legally binding global agreement. As a result the EU plays a minor role for the ultimate success in Durban 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.

In Cancún Alba countries, in particular Bolivia, fiercely blocked what was a rather general agreement by all other Parties. This opposition continued since Copenhagen and it has become 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.

The agreement in Cancún was important in showing that multilateralism still works and is able to produce results. However, it will be very difficult in Durban to produce again an outcome that is considered to be successful for all sides because the pressure is less strong, the key areas of disagreement related to the legal nature of future agreement cannot be resolved quickly.

2. INDIVIDUAL TOPICS IN CLIMATE NEGOTIATIONS

2.1. Mitigation of greenhouse gas emissions

2.1.1. Agreement achieved in Cancún

- The Cancún decision (Decision 1/CP17) sets a goal of limiting average global surface warming to below 2°C.
- To ensure a likely (>66%) chance of achieving the common goal of limiting global warming to less than 2°C above pre-industrial temperatures (BE 2010) a peak in global GHG emissions is required by approximately 2015 and a decrease in global emissions of 50-70% relative to 1990 levels is necessary by 2050.. The later the peak occurs, the steeper the decline in emissions would need to be in the subsequent decades. In the Cancún decision neither a timeframe for a peak in global emissions, nor a global long term emission reduction target by 2050 could be agreed, and such decisions were postponed to COP 17.
- Shortly after the COP in Copenhagen, developed countries submitted pledges for quantified economy-wide emissions reduction targets for 2020. These pledges were included in an INF-document in accordance with the Cancún decision, but not converted into legally binding commitments in an international agreement.
- Accordingly, developing countries, including all major emitters, committed to implement nationally appropriate mitigation actions (NAMAs) which they also had submitted at the beginning of 2010. These pledges were included in an UNFCCC information document which is not a legally binding commitment. The Cancún decision invites developing countries to submit further pledges for NAMAs. The implementation of NAMAs is conditional on the provision of support from developed countries.
- Developed country Parties are urged to increase the ambition of their economy-wide emission reduction targets, because the aggregate commitments do not achieve the global emission reduction necessary to achieve the 2 degree objective.
- The secretariat was requested to organize workshops to clarify the assumptions and the conditions related to the attainment of these targets and mitigation actions, for both developed and developing countries and these workshops took place during 2011.

2.1.2. Necessary emission reductions

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.
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).[1]

[1] The determination of temperature objective is based on gradual and smooth increase in scale and severity of impacts with increasing temperature. The reality, however, is that climate change is unlikely to be a smooth transition into the future and that there are a number of thresholds along the way that are likely to result in

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). Converted to absolute figures studies show that emission levels of approximately 44 gigatonnes of carbon dioxide equivalent ($GtCO_2eq$) (range: 39-44 $GtCO_2eq$) in 2020 would be consistent with a "likely" chance of limiting global warming to 2° C. Under business-as-usual projections, global emissions could reach 56 $GtCO_2eq$ (range: 54-60 $GtCO_2eq$) in 2020, leaving a gap of 12 $GtCO_2eq$ (UNEP 2010).

2.1.3. Mitigation commitments of developed countries

During the course of 2011, the mitigation pledges of Annex I Parties did not change compared to the pledges submitted in January 2010. 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 aggregated together only achieve a 12-18 % emission reduction and are still about 10 percentage points short of reaching even the lower 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

significant step changes in the level of impacts once triggered. The existence of such thresholds or 'tipping points' is currently not well reflected in mitigation or adaptation policy.

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 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.

Taking these two effects into account, the aggregate emission reduction in 2020 of Annex I Parties would only be -1 to -6% below 1990.

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.

If the emission reductions are converted to absolute amounts in gigatonnes CO_2eq, the situation looks as follows.

- If lowest-ambition pledges were implemented with the use of AAU surplus and LULUCF, emissions could be lowered slightly to 53 $GtCO_2$eq (range: 52-57 $GtCO_2$eq), leaving a significant **gap of 9 $GtCO_2$eq** (UNEP 2010).
- If countries would move to the higher end of the emission reduction pledges and if a net increase of emissions would be avoided by strict rules for LULUCF and AAUs surplus the gap could be reduced substantially, the emissions in 2020 could be lowered to 49 $GtCO_2$eq (range: 47-51 $GtCO_2$eq), reducing the size of the **gap to 5 $GtCO_2$eq**. (which is still almost 60 %per cent of the way towards reaching the 2° C target) (UNEP 2010).

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 2009a, EC 2009b).

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).

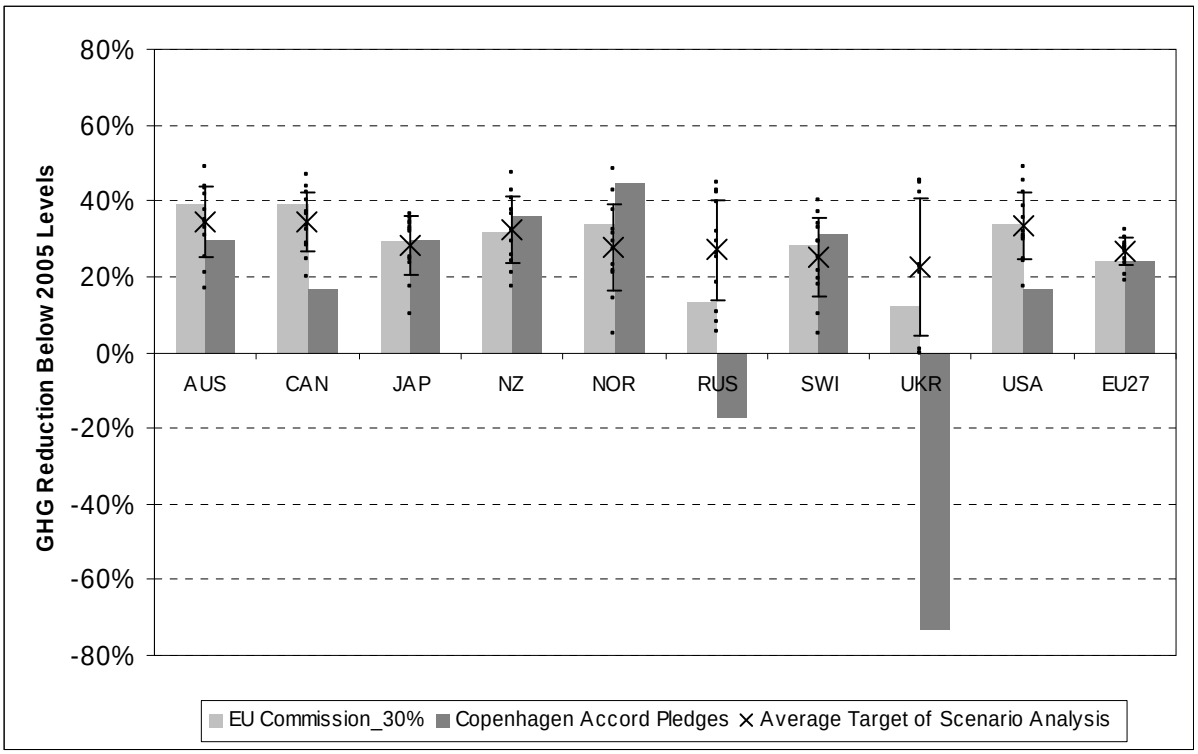
Table 2: Absolute emission targets and reductions of Annex I Parties (high end of range)

	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

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

2.1.4. 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 sectors (Table 3).

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

	NAMAs
Bhutan	carbon neutral by 2020
Brazil	36.1-38.9% below BAU by 2020
Chile	20% below BAU by 2020 as projected from the year 2007
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
Papua New Guinea	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 5 shows the emission reductions implied by the submitted NAMAs for those developing countries that submitted quantified NAMAs related to their total emissions. Many developing countries submitted lists of specific mitigation activities in different sectors. An overview of these submissions is provided in Table 4.

Table 4 : Overview of developing countries proposing specific non-quantified NAMAs in different sectors

	Submission of individual NAMAs without quantified contibution to total national emission reduction
Argentina	Developing programmes and list of NAMAs in the energy, forestry, waste sectors (No. of NAMAs: 5)
Armenia	List of NAMAs in the energy, transport, waste and forestry sectors (No. of NAMAs: 8)
Benin	List of NAMAs in the transport, waste and forestry sectors (No. of NAMAs: 3)
Botswana	List of NAMAs in the energy, transport, building and forestry sectors
Cambodia	Will undertake NAMAs through REDD
Cameroon	Will undertake NAMAs through REDD, CDM, reforestation, sector-specific mitigation actions
Central African Republic	List of NAMAs in the energy, transport, building, agriculture, waste, forestry LULUCF sectors (No. of NAMAs: 20)
Chad	List of NAMAs in the energy, forestry, agriculture, LULUCF and transport sectors (No. of NAMAs: 20)
Colombia	Undertaking studies on its mitigation potential and abatement cost curves for the transport, agriculture, energy, waste and industrial sectors. Preliminary actions in the following sectors : energy, forestry, LULUCF and transport
Congo	List of NAMAs in the energy, transport, waste, forestry sectors (No. of NAMAs: 22)
Ivory Coast	List of NAMAs in the energy, agriculture, industrial, transport and forestry sectors (No. of NAMAs: 10)
Ethiopia	List of NAMAs in the energy, agriculture, waste, transport and forestry sectors (No. of NAMAs: 10)
Eritrea	List of NAMAs in the energy, agriculture, LULUCF and forestry sectors (No. of NAMAs: 14)
Gabon	List of NAMAs in the energy, waste, transport, LULUCF and forestry sectors (No. of NAMAs: 22)
Ghana	List of NAMAs in all sectors (No. of NAMAs: 34)
Jordan	List of NAMAs in the energy, transport, waste, agriculture, LULUCF and forestry sectors (No. of NAMAs: 23)
Madagascar	List of NAMAs in the energy, transport, waste, agriculture and forestry sectors (No. of NAMAs: 19)
Mauritius	Embarked on a comprehensive Sustainable Development Programme which priortizes renewable energy and energy efficiency
Mauritania	List of NAMAs in the energy, transport, LULUCF and forestry sectors (No. of NAMAs: 13)
Mongolia	List of NAMAs in the energy, transport, industry, agriculture, LULUCF and forestry sectors (No. of NAMAs: 22)

	Submission of individual NAMAs without quantified contibution to total national emission reduction
Morocco	List of NAMAs in all sectors (No. of NAMAs: 43)
Peru	List of NAMAs in the energy, waste and forestry sectors (No. of NAMAs: 3)
San Marino	List of NAMAs in the energy and transport sectors (No. of NAMAs: 5)
Sierra Leone	List of NAMAs in the energy, agriculture, waste, transport and forestry sectors (No. of NAMAs: 12)
Tajikistan	List of NAMAs in the energy sector (No. of NAMAs: 5)
Macedonia	List of NAMAs in the energy, transport, industry, agriculture and forestry sectors (No. of NAMAs: 66)
Togo	List of NAMAs in the energy sector (No. of NAMAs: 8)
Tunisia	List of NAMAs in the energy, transport, waste, industry, LULUCF and forestry sectors (No. of NAMAs: 34)

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 5: 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
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	7 112	7 112	0	0
Total non-Annex I countries	27 237	24 327	-2 910	-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: Duscha et al 2010

2.1.5. Negotiation process in 2011

This "ambition gap" between Parties' current pledges and the level of reductions necessary to remain below the 2°C objective was addressed in the negotiations in 2011 and there was broad recognition of the existence of this "ambition gap". Parties outlined a number of options to help bridge the gap, including increased ambition of national targets, development of the carbon market, or stronger action on international aviation and maritime transport. Developing countries consider, however, that any process to increase the level of ambition should only apply to developed countries. The EU and developing countries are also pushing to adopt a common international accounting system in this respect, but the US and other developed countries are seeking a flexible system. The question whether to set up a process to increase the level of ambition and whether it should also relate also to developing countries remains one of the key questions to be resolved in Durban.

2.1.6. Review of the global ambition level and progress achieved towards it

The Cancún Agreement includes a decision to review the adequacy of the long-term global goal and overall progress towards achieving it in a first review that should start in 2013 and end by 2015. In 2011 the scope and the modalities of this review have been further discussed.

Recent discussions in Panama focused on a proposal by Australia to establish a specific new body in charge of conducting the review, which the EU considers inappropriate as it considers the COP itself should be in charge.

The biennial reports discussed in the MRV sections are considered to be important input for the 2013-2015 review as well as the 5th assessment report of the IPCC which will be released during this period.

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

2.2.1. Agreement achieved in Cancún

Key elements of the Cancún agreement related to MRV of developed countries include the following provisions:

- Continue with annual submission of GHG inventories and national communications (every 4 years)
- New requirement to submit biennial reports on the progress in achieving emission reductions. Biennial reports should include
    - information on mitigation actions to achieve the quantified economy-wide emission targets and emission reductions achieved,
    - emission projections,
    - information on provision of financial, technology and capacity-building support to developing country Parties.
- Improved reporting on the provision of financial, technology and capacity-building support to developing country Parties;
- Decision to enhance reporting guidelines for Annex I national communications, in particular related to financial support to developing countries and to enhance guidelines for the review of Annex I national communications.
- Decision that Annex I Parties should establish 'national arrangements' for the estimation of GHG emissions (a requirement currently only covered as 'national systems' for the Kyoto Protocol Parties, but not for the USA);
- Decision to establish a process for international assessment and review (IAR) of emissions and removals related to quantified economy-wide emission reduction targets under the SBI,
- Decision that developed Parties should establish low-carbon development strategies or plans.

For Kyoto Parties, the changes introduced by the Cancún agreement are relative small and include the preparation of new biennial reports and improved information on financial support. 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 will 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. In principle, important Kyoto MRV provisions could be transferred to the Convention under the Copenhagen Accord. However the USA opposes any linkages to a formal compliance regime with consequences and an international system of accounting of emission reductions and flexible mechanism as well as a more rigorous review process.

2.2.2. Negotiation process in 2011

The negotiation process in 2011 focused on the elaboration of guidelines for biennial reports of Annex I Parties and modalities and procedures for the process of international assessment and review of emissions and removals related to quantified economy-wide emission reduction targets. Accounting of emissions and removals toward emission reduction targets, in particular rules related to the accounting of flexible mechanism and LULUCF, were also discussed. Most Parties stressed in their priorities for Durban that COP17 should adopt guidelines for biennial reports and IAR in Durban to have the resulting reports available for the review of targets in 2014/2015.

Guidelines for biennial reports Annex I Parties

Key differences with regard to the content of guidelines for biennial report of Annex I Parties occur related to the following issues:

- Whether the biennial reports should address the level of ambition of the economy-wide target and a continuous evaluation of the gap towards the target;
- Whether common accounting rules should be adopted for the base year, LULUCF and the use of flexible mechanism, or whether such rules are chosen by Parties and only reported in biennial reports;
- The mandatory character of reporting provisions related to support ('shall' or 'should' or inclusion of 'to the extent possible');
- Whether standard reporting tables should be agreed in Durban
- Date of first biennial report between 2012 (AOSIS and Switzerland), 2013 (New Zealand and Australia and 2014 (EU).

International assessment and review (IAR)

The Cancún decision specified that international assessment and review (IAR) of emissions and removals related to quantified economy-wide emission reduction targets should occur under the SBI. This process originates from the different situation under the Kyoto Protocol that includes a compliance mechanism with consequences for non-compliance with both reporting requirements and reduction targets. Such mechanism does not exist under the Convention, and the IAR process was introduced to replace such a compliance mechanism. The USA brought forward the idea of a public assessment of a Party's progress under the SBI replacing a compliance mechanism. Thus, the key difference between the USA, other umbrella group countries (Canada, Japan) and developing countries or the EU is therefore whether the result of the IAR process at the end are linked with a compliance mechanism and consequences or whether this only results in a public discussion of an Parties' failure to meet its targets.

Another area of divergence is whether IAR only applies to the assessment of emissions and removals related to the quantified target or whether it also assesses the financial support provided by a Party. Positions on this issue are less clear, e.g. EU and Brazil would see information on support as part of the review process, but not part of the assessment process whereas New Zealand proposes to limit the process to the progress in achieving the reduction target. The USA in its most recent submission does not want to go beyond the language agreed in Cancún and opposes

Annex I Parties see the IAR procedure with two steps where a public assessment of a Parties' status in implementation under the SBI follows a technical review of the reports by expert teams. Developing countries foresee a technical review of the information similar to the current situation and the establishment of a special compliance body under the Convention responsible for the assessment.

Accounting framework

Many Parties including the EU highlighted the importance of a common accounting framework for mitigation targets that addresses the coverage of sectors and sources, metrics to convert gases to CO2equivalents, common base years, common accounting rules for LULUCF and for the use of flexible mechanisms. In their view it is essential to have a separate decision on accounting modalities in Durban. Similar to its internal compliance mechanism, the EU proposes that other Annex I countries should also establish a binding emission pathway or trajectory for the period until the end year of the target to enable a more frequent assessment whether Parties are on track with their mitigation pathway. The USA opposes any accounting rules beyond what is currently agreed under the Convention (coverage of gases and sectors, use of metrics) and stresses that any accounting framework should be the same for developed and developing countries.

No further discussions took place related to several other issues included in the Cancún decisions: the low carbon development strategies, the revision of the reporting guidelines for Annex I national communications or the preparation of review guidelines. Parties agreed to address work on national inventory arrangements as part of the ongoing work on the revision of Annex I reporting guidelines for GHG inventories under the Convention.

2.2.3. Position of Parties

- The most important dispute among Annex I Parties is related to international agreed accounting rules for mitigation targets. USA and Canada prefer domestic decisions on accounting, e.g. for LULUCF or mechanisms and only the outcomes are reported at international level.

EU:

- An MRV system should be established in which emission reductions and mitigation efforts of developed Parties can be easily compared and assessed;
- Supports improved reporting of polices and mitigation action and the use of indicators to track progress in the biennial reports.
- Pushes for international accounting rules for emission reductions (define gases and sectors covered, metrics to calculate CO_2 equivalents, accounting of LULUCF and mechanism). Wants all Annex I Parties to fix a target and a specific reduction pathway to enable a continuous assessment of mitigation progress.
- Agrees with enhanced reporting on finance as far as it is feasible and based on available data. New requirements should build on data collection systems already established. Therefore EU supports to use OECD DAC (Development Assistance Committee) reporting system with Rio markers for tracking financial support for mitigation and adaptation for an improved tracking of financial support.
- Is not against a link of the ICA process with compliance, but does not see this as a longer-term objective which cannot yet be developed for Durban.

USA

- Supports a common MRV approach for all Parties – both for developed and developing countries;
- refuses to consider international accounting rules for LULUCF or project-based credits;

- Objects a link between the IAR process and a compliance system with binding consequences.

G-77:

- Emphasises the link between MRV and compliance; thus Parties who are not in line with reporting requirements shall face consequences;
- Wants to enhance MRV for financial support;
- 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.

OPEC countries

- Want that biennial reports are used to report on response measures (effects of mitigation action in third countries).

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

2.3.1. Agreement achieved in Cancún

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 have 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 mitigation actions based on agreed reporting guidelines and that this information is assessed at international level.

Key elements of the Cancún agreement related to MRV of developed countries include the following provisions:

- Decision to enhance the reporting of Annex I Parties in national communications, including inventories;
- Decision that developing countries should submit **national communications every 4 years**;
- Decision that developing countries should also submit **biennial update reports** containing updates of national greenhouse gas inventories, including a national inventory report and information on mitigation actions, support needs and support received. Annex I Parties have to provide financial resources for these reports;

- Decision to conduct **international consultations and analysis** (ICA) of biennial reports under the SBI, with the aim to increase transparency of mitigation actions and their effects, through analysis by technical experts in consultation with the Party concerned and through a facilitative sharing of views. The ICA process shall result in a summary report. The Cancún agreement already decided that the information considered by the ICA process should include the national greenhouse gas inventory report, information on mitigation actions, including a description, analysis of the impacts and associated methodologies and assumptions, progress in implementation and information on domestic measurement, reporting and verification, and support received.
- Decision to set up a **registry to record nationally appropriate mitigation actions** (NAMAs) seeking international support and to facilitate matching of finance, technology and capacity-building support for these actions. This registry shall record and regularly update in the registry the information NAMAs seeking international support, on support available from developed country Parties for these actions and on support provided for nationally appropriate mitigation actions. Further modalities for the facilitation of support through the registry should be developed.
- Decision that internationally supported mitigation actions will be measured, reported and verified domestically and will be subject to international measurement, reporting and verification guidelines to be developed under the Convention;
- Decision that domestically supported mitigation actions will be measured, reported and verified domestically in accordance with general guidelines to be developed under the Convention;

2.3.2. Negotiation process in 2011

The work in 2011 focused on the guidelines for biennial reports, guidelines for the ICA process and on the development of the registry for NAMAs. On MRV for developing countries, progress was rather slow in 2011 and there is a clear divide between the positions of Annex I Parties and Non-Annex I Parties. However some developing countries such as those participating in the Cartagena group are very constructive in the elaboration of guidelines in these areas. The major areas of disagreement
G77 and China as a group refuses to implement many of the Cancún provisions related to MRV, in many areas, e.g.

- the biennial reports should not be biennial, but less frequent;
- disagreement that new guidelines are necessary and do not want to go beyond current guidelines for Non-Annex I national communications;
- mandatory character of reporting guidelines for biennial reports, G77 only wants wording of voluntary character (‘should’ or ‘encourage’ instead of ‘shall’);
- Objective of ICA process should not be an assessment of the inventories and mitigation action, but should only have the objective to identify resource needs;
- The biennial report should not undergo the ICA process, but only some other non-mandatory information;
- G77 does neither accept a transparent expert review process of their information as part of the ICA process, nor an open and public discussion of the reported information under SBI.

With regard to the registry for NAMAs, G77 and China see the registry limited to those NAMAs submitted in January 2010 and should not registry any additional information (which is clearly different in the Cancún agreement). Some developing countries see a link between the registry and the Green Climate Fund which Annex I Parties oppose.

Guidelines for biennial reports of developing countries

Key differences with regard to the content of guidelines for biennial report of Non-Annex I Parties occur related to the following issues:

- Whether the biennial reports should be biennial (Annex I Parties) or less frequent (G-77);
- The mandatory character of most reporting provisions: developing countries want only provisions that 'encourage' Parties or 'should' provision, whereas Annex I Parties want some mandatory elements, such as the provision of GHG inventories on a more continuous basis;
- whether an inventory report that explains the inventory methods and data used has to be submitted. This is essential for Annex I parties and addressed specifically in the Cancún decision, but G-77 rejects this as a mandatory requirement;
- Whether a periodic frequency of inventory information (every two years) is established (Annex I Parties) or whether inventory information is only submitted for one specific year (e.g. 2010) and continued requirement (G-77).
- Whether there is a mandatory requirement to provide information on mitigation action (Annex I Parties) or whether this is only voluntary (G-77);
- G-77 wants to continue with existing (weak) guidelines for national communication and guidelines for biennial reports should not deviate from these guidelines
- G-77 reject reporting on financial support received, only accept to report on financial needs
- Whether there is a requirement to report on domestic MRV system (Annex I Parties) or not (most developing countries)

Revision of guidelines for Non-Annex I national communications

While the Cancún agreement and Annex I parties foresees an enhancement of the outdated guidelines for Non-annex I national communications, G-77 refuses the need to revise the guidelines for Non-Annex I national communications.

Process of international consultation and analysis

The Cancún decision foresees to conduct a process of international consultations and analysis (ICA) of biennial reports of developing countries under the SBI, 'with the aim to increase transparency of mitigation actions and their effects, through analysis by technical experts in consultation with the Party concerned and through a facilitative sharing of views.' The ICA process shall result in a summary report. The Cancún agreement already decided that the information considered by the ICA process should include the national greenhouse gas inventory report, information on mitigation actions, including a description, analysis of the impacts and associated methodologies and assumptions, progress in implementation and information on domestic measurement, reporting and verification, and support received. However, there is a strong disagreement between Annex I and Non-Annex I Parties in relation to the objectives, the coverage and scope, the procedure as well as the outcome of the ICA process.

Annex I Parties see a process of technical analysis by review teams of the Non-Annex I biennial reports that covers GHG inventories, information on implementation of mitigation actions and the information on support received. This is followed by an open consultation specific to a Party under the SBI during with a question and answer session.

Developing countries reject any individual assessment of the information of a specific developing country.

Among developing countries there are different views related to the process of ICA. The developing countries participating in the Cartagena dialogue (e.g. Columbia, Mexico) would accept a process as described above with a number of specific proposals or changes.
China strongly opposes a public consultation of its information, a consultation is seen as the cooperation by the Party with a team of technical experts that analyses the report. G77 stressed that the consultation should come before the assessment and along this position Brazil suggested to have a consultation of biennial reports through a process of written questions and answers between Parties and a technical analysis by a written exchange between an expert team and the Party. This process shall result in a summary report presented to but, not discussed by the SBI.

Registry for NAMAs

In Cancún it was decided to set up a registry to record nationally appropriate mitigation actions (NAMAs) seeking international support in a web-based database with the aim to facilitate matching of finance, technology and capacity-building support for these actions. This registry shall record and regularly update in the registry the information NAMAs seeking international support, on support available from developed country Parties for these actions and on support provided for nationally appropriate mitigation actions. Further modalities for the facilitation of support through the registry should be developed.
Despite of the clarity of the Cancún provisions there is still considerably dispute around the establishment of the NAMA registry between Annex I and Non-Annex I Parties. The areas of divergence arise:

- Whether the registry should also register / recognize domestically funded NAMAs;
- The specific information that should be recorded
- Whether there should some format elaborated specifying types of information that should be recorded (many developing countries oppose and format that 'dictates' the types of information that developing countries should submit);
- Whether the registry has a link to the Green Climate fund or in general the financial mechanism. Most Parties agreed that the inclusion of proposed NAMAs in the registry does not pre-empt any decisions on support provided and that such decisions continue to be the responsibility of funding donors and governing bodies of funding mechanisms.
- Whether any additional mitigation actions should be recorded in the registry beyond the information pledged by developing countries by January 2010.

2.3.3. Position of Parties

- EU:
    - Biennial report guidelines for Annex I and Non-Annex I Parties essential for agreement in Durban.
    - Biennial reports for Non-Annex I Parties need to provide regular inventory data from developing countries, national inventory report with methodological information is important as well as information on the implementation of mitigation actions.
    - Decision on ICA process with technical analysis of the entire biennial report (including inventories and mitigation action) is important part of Durban package.

  - Current requirements for Non Annex I parties to submit NAMAs into the registry is not the end point for negotiations on Non-Annex I Parties'1 mitigation action. Registry as an instrument to improve transparency of information on NAMAs and support for NAMAs, but not as a key issue for Durban. Supports the development of a registry as an instrument to exchange information.
  - Stresses importance of decision on accounting framework for developed parties in Durban
  - COP17 should decide to revise guidelines for Non-Annex I National communication.

- Annex I Parties jointly support enhanced MRV provisions for Non-Annex I Parties. They would prefer a differentiation between developing countries in big and small emitters and apply more rigorous and more frequent MRV provisions to the key emitters only, a concept which is strongly rejected by the big Non-Annex I emitters (China, India, Brazil).
- G77 and China try to reduce the mandatory content of Non-Annex I biennial report as much as possible and make the ICA process voluntary and limit it to objectives that do not assess the implementation of mitigation action.
- A number of Latin American countries and AOSIS support enhanced MRV provisions (biennial reports and ICA) for developing countries:
- ALBA countries and Saudi-Arabia are the strongest opponents against MRV provisions for developing countries and most demanding in terms of provisions for annex I parties and compliance consequences.

2.4. Financial support including fast-start financing

2.4.1. Agreement achieved in Cancún

Key elements of the Cancún agreement related to financial support include the following provisions:

The agreement recognizes the mid-term financing commitment by developed countries which is to **mobilise jointly USD 100 billion per year by 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 Green Climate Fund. It was also decided that a significant share of new multilateral funding for adaptation should flow through the Green Climate Fund.

The Cancún agreement established the **Green Climate Fund** to support projects, programmes, policies and other activities in developing country Parties using thematic funding windows. The Fund will be governed by a Board of 24 members, comprising an equal number of members from developing and developed country Parties.

A **Transitional Committee** selected by Parties to the UNFCCC will design the details of the new fund. The Transitional Committee shall develop and recommend a number of operational documents for the Green Climate Fund for approval in Durban.

The Cancún agreement also established a **Standing Committee** to assist the COP in exercising its functions with respect to the financial mechanism of the Convention in terms of improving coherence and coordination in the delivery of climate change financing, rationalization of the financial mechanism, mobilization of financial resources and measurement, reporting and verification of support provided to developing country Parties. The roles and functions of this Standing Committee will be further defined.
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**).

2.4.2. Negotiation process in 2011

Green Climate Fund
The work in 2011 on climate finance included defining the functions of the Standing Committee, which seeks to address how financial flows complement each other and are coordinated, as well as the identification of sources of long-term finance. Both are relevant to ongoing parallel discussions on the Green Climate Fund. Developing countries want the Fund to be country-driven and integrated into national development planning processes.

The Transitional Committee (TC) met four times in 2011. Issues discussed in the TC include governance issues (selection or appointment of members of the GCF board; relationship between the GCF and the COP, the GCF's legal form and status, independence of the GCF), the GCF's guiding principles, the ambition and purpose of the GCF; the GCF's fiduciary standards and environmental and social safeguards (including whether new standards should be developed or whether existing standards should be used); structure and operational modalities of the GCF (allocation of funds under the GCF; direct access to funds; leveraging of funds for the GCF, role of the private sector; funding windows).
Under the operational modalities, the dispute aroused whether payments occur for verified results (Annex I Parties9 or whether there is ex-ante financing without a verified result.
The TC could not reach an agreement to adopt the recommendations and the instrument, and the draft documents will be forwarded to COP17. The draft governing instrument for the GCF outlines the GCF's objectives and guiding principles, stating that in the context of sustainable development, the objective of the Fund is to promote a paradigm shift towards low-emissions and climate-resilient development pathways. It also outlines the GCF's governance and institutional arrangements, the GCF Board's rules of procedure, and roles and functions. The inability of the TC to agree on these issues, reflect the divergence between Parties on these issues of governance and operation of the fund.
Developing countries are also pushing for an initial capitalisation of the GCF in Durban, while developed countries insist that the GCF design has to be established before any pledges can be made.

Long-term finance
Differing positions flared at the last AWG session in Panama when it came to the issue of long-term finance and whether this should be addressed in an outcome in Durban. While the fast-start funding pledged in Copenhagen and Cancún is being delivered to some extent, it only goes until 2012. Developed countries have committed to mobilize long-term finance from 2012 to 2020, but it is unclear how the post-2012 gap will be filled and what kind of roadmap countries can put in place to meet the $100 billion goal to be achieved by 2020.

The USA and other umbrella group countries considered the issue of long-term finance as “premature,” and rejected that the AWG-LCA has a mandate from the Cancún Agreements to discuss long-term finance. AOSIS proposes a work programme on source of climate finance. The African Group demanded a provision that developed countries should provide **public** finance of at least USD 100 billion per year by 2020, which beyond the Cancún Agreements (USD 100 billion from a variety of sources, public and private).

To solve the resulting impasse in the negotiations, the EU proposed reiterating the Cancún commitments on long-term finance, and suggested that the UNFCCC should do further work sources of finance taking into account the report of the Advisory Group on Finance (AGF) to the UN Secretary General and the report on mobilizing climate finance in the context of the G20. The EU's initiative triggered a submission by Japan, Australia and Canada. Subsequently the Chairs compiled a draft negotiating text at the session in Panama on long-term finance which was acceptable to all Parties.

The high-level advisory group on finance (AGF), appointed by the United Nations Secretary General, looked into the question of sources of long-term finance provided a variety of sources without ranking them or indicating preferences. While there has been little discussion within the UNFCCC on the issue, the G-20 has attempted to step in. The G-20 is of the view that the UNFCCC is "not the relevant forum" to discuss long-term finance and that an efficient track was required to follow up on long-term finances, to ensure that the climate fund doesn't end up becoming an empty shell.

For most developing country Parties, an agreement on long-term finance is a key part of the Durban outcome.

Fast-start financing

Developing countries requested the formalisation of the Copenhagen Accord pledges by developed countries in a COP Decision. There is a 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.

Standing commitee

The Standing Committee on climate finance should assist the COP in improving coherence and coordination in the delivery of climate change financing, rationalization of the financial mechanism, mobilization of financial resources and measurement, reporting and verification of support provided to developing country Parties. The Panama session produced a consolidated negotiating text on the Standing Committee but contains many options and different views for the powers and functions of the Standing Committee.

The EU and other developed countries propose that the Standing Committee should have an advisory role, whereas developing countries suggest a supervisory role. This has implications for the execution of the functions contained in the Cancún Agreements, in particular with regard to the "mobilization of financial resources" and "measurement, reporting and verification of support provided to developing country Parties".

2.4.3. Status of fast-start finance

In Copenhagen developed countries committed collectively to provide new and additional resources, approaching USD 30 billion for the period 2010 - 2012. 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.

The scepticism is shared even by progressive developing countries (e.g. Cartagena Group) and developing countries are pushing for a Decision in Durban 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.

In accordance with the Council conclusions 8 November 2011 to date a total of € 4.68 billion has been mobilized by the EU to meet its fast-start financing (FSF) commitment. Of this total amount 39% were allocated to fund mitigation action, 31% to support adaptation efforts and 12% to support action to reduce deforestation and forest degradation in developing countries. 18% of the funding cannot be strictly categorized. The public sector provides at least $21 billion, which is raised through carbon market revenues, carbon taxes and general tax revenues.

A recent report by the Climate Policy Initiative (CPI 2011) states that at least $97 billion per year is already being provided to support low-carbon, climate-resilient development (compared to the $100 billion pledge) , but the bulk is investment in mitigation projects like renewable energy, with only 5 % going to help vulnerable countries adapt to climate change. However, a "significant share" of the current estimated flows of $97 billion is not new money but was already being provided before the Copenhagen Accord.

2.4.4. Position of Parties

EU

- both public and private flows are indispensable elements of climate finance
- Stresses the important role that Multilateral Development Banks and carbon market instruments can play in leveraging greater private finance for climate change.
- Highlights carbon pricing is a potential source of revenues that would also generate the price signal necessary to efficiently achieve emissions reduction from these sectors.
- The EU wants to get an emission trading scheme on shipping and financial resources from the trading system shall contribute to the GCF. A recent World Bank report suggested that a $25/tonne carbon price on shipping fuel could raise around $40 billion by 2020.
- The EP called, in its resolution of 16 November 2011, for the use of innovative sources of financing and for a tax on financial transactions to be established at international level and for the revenues to be used in particular to support climate action in developing countries.

- Agrees to start discussion on long-term finance
- Any decisions on the Green Climate Fund, initial capitalisation and long-term financing depend on other parts of package, such as emissions reductions and progress towards a broader legally binding agreement,
- No role of the standing committee related to MRV of information submitted by Parties in biennial reports.

Umbrella Group

- Do not want to engage in discussions on long-term finance and questioned mandate of AWG-LCA to discuss long-term finance

G-77

- Urge Annex I Parties to commit to long-term finance in Durban
- Push for pledging to Green Climate Fund as soon as possible (before or at Durban)
- Want to have direct access to funds
- COP in Durban should decide to initiate the operation of the Green Climate Fund
- urged the developed countries to capitalize the fund from their public resources;
- request new and additional funding (related to ODA)
- Request public funding and some developing parties oppose to include private funding.
- In recent statements BASIC countries recognized that due to the financial crisis, it will be difficult for Annex I parties to implement the 100 billion $ commitment.

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.

2.5.2. Agreement achieved in Cancún

The Cancún agreement 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.

The Cancún agreement requests developing countries to develop a national strategy or action plan and a national forest reference level, a robust forest monitoring system and a system that provides information how the environmental safeguards are addressed.

The Cancún decision includes phases for the implementation of REDD+ that countries should follow on the path to reducing deforestation beginning with the development of national strategies or action plans, followed by the implementation of national policies and measures and national strategies and evolving into results-based actions that should be fully measured, reported and verified.
Further technical details on the REDD+ mechanism will be elaborated in a work programme under SBSTA.
The AWG-LCA was requested to explore financing options for the full implementation of the results-based action.

2.5.3. Negotiation process in 2011

The discussions currently focus on elements of a decision on the financing of REDD+ in Durban. In particular, there is now a shared understanding that REDD+ should draw from a variety of sources, that it should above all respect environmental integrity, that its unique nature justifies a specific window in the GCF, that it should incentivize adaptation and biodiversity on top of mitigation. The role of the private sector in addressing the drivers of deforestation and degradation (by adopting more sustainable forest management standards and cleaning supply chains for sensitive commodities) was often highlighted.
The most dividing issue remains the use of credits from REDD+ as an offset mechanism. Other open issues depend on the outcome of the overall discussions on finance and the technical discussions on modalities for REDD+, reference levels or baselines, MRV and safeguards under the SBSTA. Parties and observers have been invited to make further submissions on the technical issues. A decision on REDD+ finance under AWG LCA seems possible in Durban.

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+ partnership in 2011

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.

Activities in 2011 included the establishment of a voluntary REDD+ Database to improve the information how financing flows for REDD+ evolve, a review of the effectiveness of multilateral REDD+ initiatives. The REDD+ partnership also organized workshops on safeguards and REDD+ and on measuring and monitoring REDD+.

2.5.5. Position of Parties and stakeholders

- European Union:
    - Phased approach for REDD+; in the medium to long term REDD+ could be phased into the international carbon market in a long-term perspective under the condition that market integrity is preserved, and robust measurement, reporting and verification requirements are met.
    - The EU wants to extend MRV requirements to include safeguards.
    - The EU agrees with other Parties on the need to scale up international support, to support the full implementation of results-based REDD+ actions that at a later stage should be assessed against an independently reviewed and verified national reference level set on the basis of historical trends and projections.
    - Before results-based actions are fully measured, reported and verified, the EU is open to the interim use of simplified reporting requirements combined with conservative estimates of emission reductions.
    - Market mechanism should only be developed under the condition that environmental and market integrity is preserved, and robust measurement, reporting and verification requirements are met.
    - Supports a REDD+ window as part of the Green Climate Fund.
- 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.

2.6.2. Agreement achieved in Cancún

In Cancún it has not been possible to advance a decision text related to LULUCF accounting rules, nevertheless there was a decision that Kyoto Protocol Parties should submit information on data for their forest management reference emission levels, in accordance with the guidelines for such reference emission levels that were agreed in Cancún. The accounting approach using **reference emission level** means that 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.

2.6.3. Negotiation process in 2011

As agreed in Cancún, each Annex I Kyoto Party submitted to the secretariat information on the forest management reference level (FMRL). These submissions were subject to a technical assessment which was also completed during the course of 2011. After this technical assessment three Parties (Australia, Poland and the Czech Republic) submitted revised reference emission levels, taking into account recommendations from the assessment. This process is an important requirement for those Annex I Parties that demand that rules for LULUCF and the contributions of the LULUCF sector should be agreed and clear before final economy-wide targets can be agreed.

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. Some progress was achieved related to the detailed discussions on accounting rules on LULUCF issues in the last AWG session in Panama.

- On harvested wood products – a new activity -, text with fewer brackets could be achieved. According to the approved text, accounting of harvested wood products will be mandatory.
- Australia and Canada are strongly pushing for specific accounting rules for natural disturbances, there are different views on how exclusion of emissions related to natural disturbances should be accounted. The EU considers that there should be a threshold above which the emissions should be excluded. Others (Australia, Canada and New Zealand) would like to exclude all emissions from natural disturbances. In Panama, G77 proposed to replace the concept of a threshold by a background level for natural disturbances which would be defined following statistical methods.
- A proposal from New Zealand on flexible land use was also discussed, but no amendments were approved.

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 and for accounting of natural disturbances, 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.

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.
- 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 new market-based mechanisms addressing broad segments of the economy 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. Negotiation process in 2011

New market-based mechanisms

In Cancún the Parties could not agree to establish new market-based mechanisms. However, it was agreed to consider the establishment of new-market based mechanisms at the session in Durban (paragraph 80). Such mechanisms should promote mitigation actions and enhance their cost-effectiveness. In addition several principles of such new-market based mechanisms were agreed:

- participation in these mechanisms should be voluntary;
- they should complement other means to support nationally appropriate mitigation actions (NAMAs);
- they should stimulate mitigation actions across broach segments of the economy;
- environmental integrity should be ensured;
- they should go beyond pure offsetting and contribute a net decrease or avoidance of global greenhouse gas emissions;
- they should assist industrialised countries in meeting their greenhouse gas mitigation targets; however, their use should supplemental to domestic mitigation efforts;
- their governance and regulation should provide a robust carbon market.

Throughout 2011 parties have intensively discussed their views how new mechanisms such as sectoral trading could be designed. These discussions included – inter alia – the following issues:

- Development and implementation:
  While some Parties promote a general mechanisms (note: plural!) framework which provides general criteria how parties could develop such mechanisms; others prefer to establish one framework mechanism (note: singular!) with a core set of common rules for the domestic implementation of the mechanism in developing countries.
- Governance:
  The governance of market mechanisms includes processes such as determination of the baseline, monitoring of the performance, independent verification of monitoring results, issuance of units, etc.; in parallel to the diverging views in terms of development and implementation, Parties differ in their view to which extent those individual governance processes require strong international coordination or could be carried out independently by the involved Parties.
- Determination of the level of ambition:
  If units of market mechanism(s) should be traded internationally, it is indispensable to ensure that the target results in real and additional greenhouse gas reductions; some Parties intent to provide transparency on their level of ambition by unilaterally declaring what they are doing whereas others suggest to approve the level of ambition at UNFCCC level; a pure declaration approach may result in a scattered international carbon market without fully fungible units if some parties distrust what was declared by other and thus disallow to use such units for compliance with mitigation commitments.

In the run up to Durban, Parties finally have agreed to compile one negotiation text which still reflects the diverging views. This text is currently 18 pages long and it will be ambitious but not impossible to elaborate a decisions text for establishing new market-based mechanisms at COP 17.

CDM / JI

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 18% of the global carbon market.

In Cancún the EU had achieved to establish standardised methods and tools to calculate emission baselines and reductions with the view to further ensure that CDM and JI projects lead to genuinely additional emission savings. This standardisation will improve the mechanisms' environmental integrity, streamline the project registration process and reduce transaction costs.

Since Cancún, the Executive Board (EB) of the CDM has elaborated a framework for the development of standardised baselines involving the designated national authorities (DNAs) for the implementation of the CDM in host countries. In addition, the EB has developed guidelines for and thus improved its direct communication with stakeholders and increased the transparency of its decisions.

Currently, many large, capital intensive projects such as super- or ultra-critical coal power plants or hydro power plants are submitted for registration under the CDM. Based on the existing rules and methodologies for determining additionality most of them are registered although many of them are suspected to be non-additional since the technology is either required by domestic law of the host country and/or since the CDM revenues represent a very small fraction of the total project finance. The EU will therefore request the CDM Executive Board to appraise the extent to which the current approach for demonstration of additionality is adequate to sufficiently secure the environmental integrity.

2.7.3. Position of Parties

New market mechanisms

The EU wants to see the creation of an OECD-wide carbon market 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 new market-based 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.

The EU's proposals on new market-based 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 Cancún there has been further convergence among many Parties that progress on the establishment of new market-based mechanisms is needed, though there are still substantial differences in their views how they should be designed.

Existing market mechanisms

Generally, many countries acknowledge the progress that has been achieved in the governance of the CDM by decision of the Executive Board in the previous year. The negotiations on CMP guidance to the Executive Board may thus be less contentious than in the past.

However, the issue of additionality testing for capital intensive projects is quite sensitive particularly for China and India, since most of those projects are located in these countries. I can therefore be expected that they will oppose decisions which intend to strengthen the additionality criteria with the view to reduce the number of non-additional projects, even if such a decision is phrased in a very broad and general language.

Another issue that may emerge refers to the continuation of the exiting mechanism in the absence of a second commitment period of the Kyoto Protocol. Some provisions of the mechanisms in the Kyoto Protocol refer to commitments periods, although the mechanisms as such may continue even without a second commitment period.

The EU is of the view that all existing mechanisms should be continued, both in order to help developed countries in achieving the mitigation targets cost-effectively and to ensure the continuation of the institutions and the knowledge on mitigation action in developed countries accumulated in those institutions. However, countries generally opposed to market-based approaches such as ALBA countries and other put the continuation of the existing mechanisms into question unless a second commitment period of the Kyoto Protocol is agreed.

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. Negotiation process in 2011

Emissions from international aviation and maritime transport (so-called 'bunker fuels') were not directly included in the Cancún Agreement. 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 3.2.4.). 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 two years. 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 and planes. 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 recommended by the UNFCCC. Emissions would not be allocated to Parties but addressed directly at the level of vessels and planes, 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 per cent. 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. Developments at IMO and ICAO

Under the **IMO**, Parties were discussing two sets of measures to reduce emissions from international shipping:

- technological and operational measures to improve the energy efficiency and
- market-based mechanisms.

At the last session of the Marine Environment Protection Committee (MEPC 62) in July 2011, Parties to MARPOL Annex VI Regulations for the prevention of air pollution from ships adopted the mandatory energy efficiency design index (EEDI) for new build ships. In addition, they agreed to require all operators to prepare and monitor ship energy efficiency management plans. Both measures are first mandatory global greenhouse gas reduction measures for the shipping sector. Interestingly, they do not differentiate between flag states but treat all ships equally irrespective of their origin.

On market-based mechanisms the Committee had gathered for an inter-sessional meeting in March 2011. At that meeting in total ten different proposals for market-based mechanisms had been analysed and discussed. However, Parties were divided in their views whether the compelling need for establishing a market-based mechanism under the IMO had been clearly demonstrated or not. After the report of the outcome of the inter-sessional at MEPC 62, it was decided to continue the discussion on market-based mechanisms at the next meeting of the Committee in March 2012.

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. A country whose carriers contribute less than 1% to the global aviation activity is 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.

From 1st January 2012 all flights to and from the EU will be included into the EU ETS, irrespectively of the flag or carrier. Currently strong opposition against this move is emerging both in developed and developing countries. At the beginning of the 194th ICAO council meeting from 31st October to 18th November 2011 26 countries of the 36 council states including the USA, Russia and China adopted a resolution urging the EU not to include non-EU carriers into the EU ETS because this policy would infringe the basic principle of national sovereignty.

The resolution does not have any legally binding consequences. However, BASIC states (Brazil, South Africa, India & China) explained that such unilateral measures would jeopardise the principles of the Convention and could thus threaten international efforts to combat climate change. EU Commissioner Connie Hedegaard reminded that aviation emissions were strongly growing and requested the ICAO council to focus on what states could do to curb aviation emissions rather than on what states should not do. She was supported by environmental NGOs, including groups from the USA and other non-EU states.

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

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.

2.9.1. Agreement achieved in Cancún

With regard to technology transfer, Parties agreed that it should support action on mitigation and adaptation and that technology needs must be determined nationally, taking into account national circumstances and priorities. Moreover, Parties decided to establish a **Technology Mechanism (TM)** which includes a Technology Executive Committee and a Climate Technology Centre and Network:

- **Technology Executive Committee (TEC):** The TEC shall implement a technology transfer framework which may include priority areas such as development and enhancement of the endogenous capacities and technologies of developing countries, deployment and diffusion of environmentally sound technologies and knowhow, increased public and private investment in technology transfer, improved climate change observation systems and related information management, develop strategies to surmount barriers for technology transfer or facilitate the development of technology road maps and action plans.
- **Climate Technology Centre and Network (CTCN):** The CTCN will comprise a Centre and a network of (mainly) existing regional or 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).

The AWG-LCA should continue to work towards making the TM operational in 2012. In particular the AWG-LCA should clarify the relationship between the TEC and the CTCN, develop procedures for selecting the host of the CTCN and elucidate the link between the technology mechanism and the financial mechanism.

2.9.2. Negotiation process in 2011

Throughout 2011, Parties discussed several aspects with regard to the implementation of the CTCN including the correlation between the host and the TEC, relationship between the TEC and the CTCN, the potential mission statement, the architecture, budgets and projected funding, governance and organisational structures as well as provisions on a review of the TM.

In September 2011, the first meeting of the TEC took place in Bonn, Germany. The discussions centred in which way the TEC should provide overviews of nationally determined technology needs, analysed policies and measures aimed at enhancing technology transfer and development, circulate information on innovative technologies and, finally, identify options to involve stakeholders in the various activities of the TM.

2.9.3. Position of Parties

- Developing and developed countries emphasise different aspects of the decision. Developed countries specifically underline that the CTCN should be lean and efficient and reject therefore the establishment of an additional executive committee. In addition, the TEC should not monitor CTCN. Developing countries, in contrast, require exactly that the TEC should also be involved in managing and monitoring the CTCN.
- Developed countries also highlight that the protection and enforcement of Intellectual property rights (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.

2.10. Adaptation

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 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.

2.10.1. Agreement achieved in Cancún

With the Cancún Agreement four major adaptation related elements were agreed:

- **Cancún Adaptation Framework:** The Cancún Adaptation Framework was established aiming at enhancing the national and international action on adaptation. The framework, inter alia, includes activities such as planning and implementing actions, impact and vulnerability assessments, strengthening institutional capacities, coordination and cooperation with regard to climate change induced displacement or migration.
- **National adaptation plans:** A process was established to enable particularly least developed countries to elaborate and implement national adaptation plans as a means to identify medium- and long-term adaptation needs. At the same time developed country parties are requested to provide new and additional finance, technology and capacity-building to address identified adaptation needs.
- **Adaptation Committee:** The Adaptation Committee was established to promote enhanced action on adaptation. The Committee's tasks, inter alia, include providing technical support and guidance, sharing relevant information and knowledge, promote synergies and strengthening engagement with other relevant organisations or networks, incentivised the implementation of adaptation action, including through finance, technology and capacity-building as well as monitor and review adaptation action.
- **Loss and Damages:** Finally, a work programme was established in order to consider approaches to address loss and damages in developing countries induced by climate change impacts. The work programme includes workshops and expert meetings and should be implemented by the Subsidiary Body for Implementation (SBI).

The EU welcomed the establishment of the Cancún Adaptation Framework and is of the view that adaptation guided by the Framework will result in more coherent action and thus more effective interventions to respond climate change. The Adaptation Committee can play a central role in improving Parties' decisions making.

2.10.2. Negotiation process in 2011

In 2011, discussions focused mainly on two aspects with regard to the implementation of the Adaptation Committee:

- **Functions of the Adaptation Committee:** Discussions included issues such as providing on request technical support and guidance to parties through workshops or expert meetings; share information knowledge and experiences on good practice through websites, technical papers or reports as well as through regional centres and network activities.

- **Composition of the Committee:** This issued included discussion on whether Committee members should be elected by the COP, criteria on the experience required to become a Committee member and whether certain groups of countries should have a specific representation in the Committee or not.

In Panama, the EU underlined that the draft decisions text needs to be finalised in Durban in order to operationalize the Adaptation Committee.

2.10.3. Position of Parties

Ghana has proposed that the Adaptation Committee should comprise all together 32 members. The membership should be balanced in terms of regional representation and gender and include a variety of required expertise. In particular, Ghana's proposals suggest, that four members should derive from each of the five UN regional groups, two from small island developing states (SIDS), two from least developed countries (LDCs) and four members each from Annex I and non-Annex I countries. According to Ghana's proposal, developing countries would have a majority over developed countries. In terms of expertise the Committee should include sufficient knowledge on both vulnerability and adaptation.

The EU suggests keeping the Committee small, rather in the range of 12 to 18 members in order to keep it lean and efficient. An equal number of members should be mandated by developing and by developed countries. They should by nominated by parties, be elected by the COP and serve in their personal capacities. In addition to practical experience with development, support and implementation actions they should also be familiar with policy making and development of policies at country or regional level.

2.11. Capacity building

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.

2.11.1. Agreement achieved in Cancún

Parties agreed in Cancún that capacity building should be enhanced through strengthening respective institutions, through establishing networks for sharing of information and other knowledge, through training, education and public awareness raising as well as through stakeholder involvement. Financial resources required to implement this decision should be provided by developed countries. Furthermore the AWG-LCA was mandated to discuss options for the monitoring and review the effectiveness of capacity building activities and to elaborate a draft decision on institutional arrangements for consideration at the COP in Durban.

2.11.2. Negotiation process in 2011

Parties focussed their discussions on the need to improve the coherence of capacity building activities under the various UNFCCC processes and identified gaps in the provision of capacity building activities. Based on these deliberations, Parties discussed ways of reporting capacity building activities in developing country parties, options to improve monitoring the effectiveness of the capacity building activities as well as institutional arrangements required for the implementation of capacity building. A further discussion addressed the debate to which extent capacity building could be integrated into projects and programmes and how to resolve challenges of stand-alone capacity building projects.

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.

With regard to mitigation, developing country Parties reiterated the need to provide technical and financial support for the preparation of biennial update reports and for the development and implementation of NAMAs.

2.11.3. Position of Parties

The Cancún Agreement requests the AWG-LCA to develop details in terms of institutional arrangements and with regard to monitoring and review of capacity building. In the past, G-77 has promoted the establishment of a new capacity building institution and for performance indicators. In the run up to Durban, G-77 indicates more flexibility in terms of establishing a new institution but expects in turn flexibility from the EU and the Umbrella Group in terms of monitoring and review and particularly in terms of performance indicators.

Similarly to other developed countries, the EU furthermore does accept neither new capacity building institutions nor performance indicators but rather promotes integrated, country specific solutions. In addition, the EU may, in a spirit of compromise, accept to schedule a specific sessions focussing on effective implementation and on monitoring and review of capacity building during regular COP sessions.

3. COUNTRY POSITIONS

3.1. China

3.1.1. Facts

Cancún agreement pledge: "China will endeavour 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).

China's new Five –year plan (12 FYP, 2011-2015) includes the following targets:

- Emissions intensity: Decrease its carbon dioxide emissions per unit of GDP -17% from 2011 to 2015
- Non fossil fuel target : Increase the share of nonfossil fuels in primary energy consumption from 8.3% in 2010 to 11.4% in 2015
- Energy intensity – Decrease energy consumption per GDP by -16% from 2011 to 2015
- Recent energy and emissions data and China's new 12th Five year indicate that China is set to not only meet its Cancún Agreement emissions intensity pledge, but is likely to go beyond it. However, at the same time, largely due to faster than expected economic growth, emissions in 2020 are likely to be higher than previous estimates (Climate Analytics et al. 2011).
- China has been successful in rapidly reducing its energy intensity. China reported that energy consumption per GDP decreased by more than 19% over the period 2006 to 2010, coming in just under the domestic target of 20% (range 18% to 27% depending on the data source).
- China has been successful in introducing renewable energy and other non-fossil energy sources. The share of non fossil energy sources has increased to 8.3% in 2010. China revised its expectations for wind energy upwards: the new target for wind is 70 gigawatts of additional installation by 2015. The domestic target to increase the share of non-fossil fuels in primary energy consumption to 11.4% in 2015 is consistent with the international pledge to increase it to 15% in 2020.
- These targets constitute a major effort and, for most model calculations, the non-fossil target leads to emissions dropping by around 580 to 800 Mt CO2 (or 6-8%) below business as usual in 2020. (Climate Analytics et al. 2011)
- According to the analysis by the climate action tracker (Climate Analytics 2011) China's forestry target in the international pledge is of limited influence on national total emissions. The new Five Year Plan does include implementing additional national actions that could reduce emissions further.

Table 6 : Emissions profile for China

	China	EU 27
CO_2 emissions (2007)		
• Absolute (Gt)	6.7	4.0
• Rank	1	3
• Of global total	22.7%	13.8%
• Per capita (t/capita)	5.1	8.2
GHG emissions (2005)		
• Absolute (Gt)	7.2	
• Of global total	19.1%	
• Per capita (t/capita)	5.5	

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.

3.2. India

3.2.1. Facts

Cancún agreement 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 7: Emissions profile for India

	India	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	1.4	4.0
• Rank	5	3
• Of global total	4.8%	13.8%
• Per capita (t)	1.3	8.2

Source: http://cait.wri.org

India has provided a quantitative target, however, the assessment is difficult, as the data underlying the target is not available. An updated national communication is currently under preparation and is expected to be available soon (the initial national communication was submitted in 2004 and no further official emission data was submitted since this point in time).

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 2010).

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.

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.

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

Before Cancún, India 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). However in the discussions in 2011 on ICA, India has no longer very proactively supported such detailed procedure, nor has it submitted specific views in the last rounds of submissions on this issue in 2011.

3.3. Brazil

3.3.1. Facts

Cancún agreement pledge: Brazil communicated that it anticipates its mitigation actions, listed below, to lead to an expected emissions reduction of between 36.1 per cent and 38.9 per cent below its projected emissions in 2020.

(a) A reduction in deforestation in the Amazon (range of estimated reduction: 564 Mt carbon dioxide equivalent (CO_2eq) in 2020);

(b) A reduction in 'cerrado' deforestation (range of estimated reduction: 104 Mt CO_2eq in 2020);

(c) A restoration of grazing land (range of estimated reduction: 83 to 104 Mt CO_2 eq in 2020);

(d) An integrated crop–livestock system (range of estimated reduction: 18 to 22 Mt CO_2 eq in 2020);

(e) No-till farming (range of estimated reduction: 16 to 20 Mt CO_2 eq in 2020);

(f) Biological nitrogen fixation (range of estimated reduction: 16 to 20 Mt CO_2eq in 2020);

(g) Energy efficiency (range of estimated reduction: 12 to 15 Mt CO_2 eq in 2020);

(h) An increase in the use of biofuels (range of estimated reduction: 48 to 60 Mt CO_2 eq in 2020);

(i) An increase in energy supply from hydroelectric power plants (range of estimated reduction: 79 to 99 Mt CO_2 eq in 2020);

(j) Alternative energy sources (range of estimated reduction: 26 to 33 Mt CO_2eq in 2020);

(k) Iron and steel – replacing coal from deforestation with coal from planted forests (range of estimated reduction: 8 to 10 Mt CO_2 eq in 2020).

Table 8: 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 9: 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.
- At the AWG-LCA Workshop in April 2011, for the first time, Brazil presented a business-as-usual scenario that forms the basis for its internationally pledged 36% to 39% reduction from business as usual reduction target. Since Brazil did not specify a baseline in the Copenhagen Accord submission made in January 2010, past analyses had to rely on assumptions and data derived from the Brazilian submission. The emissions level presented by Brazil in April 2011 is significantly higher than the level that had been previously estimated, leading to a significantly higher absolute emission level in 2020. Brazil added sources to historical emissions that were not previously included and projected larger emissions from deforestation and other sources. It also explicitly excluded the effect of planned policies. The baseline also excludes the most recent data on deforestation, which is available for 2006 to 2010, but instead calculates future trend on the basis of the average rate from 1996 to 2005. This also implies higher emissions in the baseline for 2020 (Climate Analytics 2011). Taken together the new Brazilian information results in business as usual emissions being over 0.5 GtCO2 or 18% higher in 2020 than previously estimated, and hence the international pledge will result in significantly higher emissions (Climate Analytics 2011).

- 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.
- REDD is a central part of the national mitigation strategy in Brazil. It is therefore essential that the reported emission reductions are 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 Cancún agreement. 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 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

Cancún agreement 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 10: **Emissions profile for Mexico**

	Mexico	**EU 27**
CO_2 emissions (2006)		
• Absolute (Gt)	0.47	4.0
• Rank	12	3
• Of global total	1.6%	13.8%
• Per capita (t)	4.4	8.2

Source: http://cait.wri.org

Mexico presented a highly detailed climate plan with significant actions up to 2020 and ambitious long-term goals. It recently increased the 2020 target from a 20% to a 30% reduction below the baseline. However, Mexico has made reductions after 2012 conditional on external financing without further specification. Mexico puts a large effort on MRV of its mitigation activities.

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 Cancún (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.

3.5. South Africa

3.5.1. Facts

- **Cancún agreement 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 11: **Emissions profile for South Africa**

Emission trend	1990-2005 excl. LUCF)[2], in %	+ 26.5%
Total CO_2 emissions	2007, in Mt CO_2eq (excl. LUCF)	353
Per capita CO_2 emissions	2007, in t	7.4
Share / global CO_2 emissions[2]	2007, in %	1.2%

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 will be 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 was approved by the Cabinet in October 2011 as 'National Climate Change Response Policy' (Government of South Africa 2011).

3.5.2. Positions

- South Africa is one of the important 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.

3.6. USA

3.6.1. Facts

Cancún agreement 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).

The Obama Administration has experienced difficulties in moving major policies forward that would contribute substantively to achieving this goal (Climate Analytics 2010). Annual reductions rate of 1.3% annually would have been needed to reach a 17% reduction from emission levels that prevailed in 2010, just after the announcement of the US target in Copenhagen in December 2009. If the US is not able to substantially ramp up policies before 2015, it will need larger reduction rates of 3% annually to meet its target. Higher annual reduction rates are more expensive to achieve. The technical feasibility of actually achieving reductions decreases with higher reduction rates, and the costs tend to increase rapidly (Climate Analytics 2010).

Table 12: Emissions profile for USA

	USA	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	5.8	4.0
• Rank	2	3
• Of global total	19.7%	13.8%
• Per capita (t)	19.3	8.2

Source: http://cait.wri.org

3.6.2. Positions

The USA is in favour of a pledge and review system for emission reduction targets without a legally-binding framework. It strongly opposes any system that includes an international compliance system with consequences. Apart from some basis agreement, the US prefers domestic accounting rules for LULUCF and flexible mechanism instead of an international accounting framework. The US stresses that major emitters from developing countries should be bound by the same rules. 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.

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.

[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.

3.7. The Russian Federation

3.7.1. Facts

Cancún agreement pledge: The Russian Federation communicated a target within the range of a 15–25 per cent emission reduction by 2020 compared with 1990 levels. The range of its GHG emission reductions will depend on the following conditions:
(a) Appropriate accounting of the potential of Russia's forestry sector in the context of its contribution to meeting the obligations of anthropogenic emission reductions;
(b) The undertaking by all major emitters of the legally binding obligations to reduce anthropogenic GHG emissions. (4 February 2010).

Table 13: Emissions profile for the Russian Federation

	Russian Federation	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	1.6	4.0
• Rank	4	3
• Of global total	5.5%	13.8%
• Per capita (t)	11.4	8.2

Source: http://cait.wri.org

3.7.2. Positions

The Russian Federation also clearly announced that it will not participate in a second commitment period under the Kyoto Protocol. Russia has set clear formal preferences for economic development and aims at doubling its GDP by 2020. In addition, Russia highlights specific national circumstances (large size, cold climate 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 Cancún pledge would actually not contribute to emission reductions but result in increasing GHG emissions.

At the end of the first commitment period Russia is likely to have 18% excess AAUs ("hot air") from the 1st commitment period (about 5.5 Gt). This large amount raises concerns whether this is carried over to the second commitment period (AAU surplus). 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. Russia also requested that special rules for EIT (Economies in transition) countries should continue in the future.

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.

3.8. Japan

3.8.1. Facts

Cancún agreement 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 14: Emissions profile for Japan

	Japan	EU 27
CO_2 emissions (2006)		
• Absolute (Gt)	1.27	4.0
• Rank	6	3
• Of global total	4.3%	13.8%
• Per capita (t)	9.9	8.2

Source: http://cait.wri.org

The new Government of Japan is holding to Japan's conditional 25% reduction below 1990 by 2020 emission reduction pledge, despite the tragic and extremely damaging tsunami caused by the 2011 earthquake and the meltdowns at three reactors in the Fukushima Nuclear power plant complex.
Japan is moving on domestic implementation with the approval of a new renewable energy bill in August, which has the potential to improve performance. Japan has made clear that achievement of this emissions target is contingent on an international agreement including China and India.

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. Japan clearly announced that it will not participate in a 2nd commitment period under the Kyoto Protocol.

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.

3.9. Australia

3.9.1. Facts

Cancún agreement pledge: Australia will reduce its greenhouse gas (GHG) emissions by **25 per cent compared with 2000 levels** by 2020 if the world agrees to an ambitious global deal capable of stabilizing levels of GHGs in the atmosphere at 450 ppm carbon dioxide equivalent (CO_2eq) or lower. Australia will unconditionally reduce its emissions by **5 per cent compared with 2000 levels** by 2020 and by up to 15 per cent by 2020 if there is a global agreement which falls short of securing atmospheric stabilization at 450 ppm CO_2 eq under which major developing economies commit to substantially restraining their emissions and advanced economies take on commitments comparable to Australia's.

Table 15: Emissions profile for Australia

	Australia	EU 27
CO_2 emissions (2007)		
• Absolute (Gt)	0.4	4.0
• Rank	14	3
• Of global total	1.4%	13.8%
• Per capita (t)	19	8.2

Source: http://cait.wri.org

Australia has recently endorsed a national scheme to put a price on carbon which will start by mid-2012 and which includes carbon credits from farming and forestry. The bill, recently adopted by parliament and senate, introduces a fixed carbon price first, starting in June 2012, to be replaced by a cap and trade system in 2015. The initial carbon price will be set at $23 per tonne CO_2eq, with an annual increase of 2.5%. It covers facilities with more than 27 kt of CO_2eqivalent emissions, natural gas retailers and landfill operators. The Carbon Farming Initiative lets Australia's agricultural sector reduce emissions and create carbon credit units. Emissions reduction may happen by avoiding emissions in the first place, or by removing carbon from the atmosphere and storing it in soil or trees. The credits generated can be sold to liable entities both in Australia and overseas.
For the first three years, a transitional carbon price ceiling and a floor will manage price volatility. Thereafter the price will be set only at auction.
Carbon units will be issued free to emissions-intensive trade-exposed industries (EITEs – these are industries which compete with industries in countries without a carbon price), coal-fired electricity generators and LNG projects.

3.9.2. Positions

Australia tried to play a constructive role in the negotiations under the AWG-LCA and is frequently acting as part of the umbrella group and supporting the umbrella group positions. It put forward very decisive positions in relation to the accounting of natural disturbances for future LULUCF accounting rules under the Kyoto Protocol. Australia and Norway proposal for a broader climate pact by 2015?

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 Cancún, 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 Cancún 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. Umbrella group

The Umbrella Group is a loose coalition of non-EU developed countries which formed following the adoption of the Kyoto Protocol. Although there is no formal list, the Group is usually made up of Australia, Canada, Japan, New Zealand, Norway, the Russian Federation, Ukraine and the US.
The umbrella group countries together stresses that major emitters from developing countries should have similar responsibilities than Annex I Parties and that the division in the two groups of Parties Annex I and Non-Annex I is no longer adequate given the global economic developments. 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.
The umbrella group countries also focus on the importance of MRV rules for transparent information.

4.4. 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 and the Cancún agreement. Some of the key positions are:

- 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.

4.5. Cartagena Dialogue

The Cartagena Dialogue for Progressive Action is a group of 27 countries seeking ambitious outcomes from the UNFCCC negotiations. Participating countries include Antigua and Barbuda, Australia, Bangladesh, Belgium, Colombia, Costa Rica, Ethiopia, France, Germany, Ghana, Guatemala, Indonesia, Malawi, Maldives, Marshall Islands, Mexico, the Netherlands, New Zealand, Norway, Peru, Samoa, Spain, Tanzania, Thailand, Timor-Leste, Uruguay, the UK and the European Commission.

The Dialogue emerged as a spontaneous and informal effort to elaborate the negotiation texts in Copenhagen. It was open to countries with ideas to create an ambitious regime, both comprehensive and legally binding across constructive positions and that, within the domestic sphere, strive to continue with or promote low carbon economies in the medium- and long-term. These participating countries share a main goal that the negotiations advance, and that countries work together positively and proactively both within and with other regional groups.

However, the Dialogue is neither a negotiation block, nor does it have the intention to challenge the blocks in the negotiations. The dialogue serves as a discussion forum to exchange opinions and to explore options and texts that can generate support and consensus from other parts.

Outside of the formal negotiation rooms, a space is created where frank discussions can take place to explore areas of common interest —which is very different from the polarizing environment that prevails in the negotiations.

In Cancún, the Cartagena Dialogue met daily and several times at night in subgroups to search for consensus, to take the pulse of the negotiations, and to explore strategies to work with the most inflexible countries.

In 2011, the meeting of the Cartagena Dialogue continued and the platform will hopefully again contribute to achieving a compromise in Durban.

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. The CAN position paper includes the following main points (Climate Action Network 2011):

- Mitigation: In Durban, developed countries must agree targets in line with the Cancún Agreements, of at least 25-40% below 1990 levels by 2020, as a target floor and agree a process to increase their ambition level to more than 40% for adoption by COP18/CMP8. This is part of their fair share to keep temperature increase below 2°C, and to keep open the pathway to stay below 1.5°C. In the lead up to Durban all developed countries must move to the high end of their current pledges and show how their targets are consistent with decarbonising their economies by 2050. Where their targets are less than 40% by 2020 they should indicate which other developed country should compensate for their low pledges by making higher cuts. Loopholes must be closed to ensure developed countries honestly meet their targets.
- Governments must agree to peak emissions by 2015 and reduce global emissions by at least 80% below 1990 levels by 2050, within an equitable approach to sharing this effort.
- Finance:
    - Agree a decision to mobilise adequate finance from 2013 onwards, including commitments to specific sources of public finance in 2013-2015, and a Work Program on mobilising adequate public finance over the long term from a range of sources. This should include delivery of scaled-up budgetary contributions from developed countries and supplementary innovative sources of public finance such as mechanisms in the shipping and aviation sector, a financial transaction tax and use of Special Drawing Rights.

  - Take key political decisions in Durban on the nature and form of the Green Climate Fund, including the appointment of the Board with arrangements for meaningful civil society participation, establishment of thematic funding windows and access modalities;
  - Reach agreement by Durban on the functions of the Standing Committee, to ensure that the financial mechanism of the Convention operates effectively under the COP and to improve coordination between institutions involved in climate finance - inside and outside the UNFCCC,

- REDD+: The Durban COP must ensure that adequate, predictable and sustainable finance is available for REDD+ to deliver the substantial reductions required, in the range of $15 – 35 billion per year by 2020. The COP should also decide on guidance on reference levels, measuring, reporting and verification of carbon, and information systems for safeguards based on recommendations made by SBSTA this year. This guidance is necessary to maximise the effectiveness of REDD+ and inform current capacity building efforts..
- 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: KP architectural elements are crucial to ensure that mitigation commitments are legally binding and have environmental integrity. Parties should secure a mandate to negotiate a legally binding instrument under the LCA to be adopted no later than 2015 and in force by the end of the second commitment period of the Kyoto Protocol. By 2015 at the latest, the commitments and actions of all Parties, while respecting the principles and provisions of the Convention, should be inscribed in legally binding instrument[s].

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 28th September to 8th 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 per cent up 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 autonomous 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.

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.

The Assembly 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. From 1st January 2012 all flights to and from the EU will be included into the EU ETS, irrespectively of the flag or carrier.

However, currently strong opposition against this move is emerging both in developed and developing countries. At the beginning of the 194th ICAO council meeting from 31st October to 18th November 2011 26 countries of the 36 Council states including the USA, Russia and China adopted a Council resolution urging the EU not to include non-EU carriers into the EU ETS because this policy would infringe the basic principle of national sovereignty.

The Council resolution does not have any legally binding consequences. However, BASIC states (Brazil, South Africa, India & China) explained that such unilateral measures would jeopardise the principles of the Convention and could thus threaten international efforts to combat climate change. EU Commissioner Connie Hedegaard reminded that aviation emissions were strongly growing and requested the ICAO council to focus on what states could to curb aviation emissions rather than on what states should not do. She was supported by environmental NGOs, including groups from the USA and other non-EU states.

5.3. IMO

The 62nd meeting of the Marine Environment Protection Committee (MEPC 62) was held in London from 11th to 15th July 2011. 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. As the major result of the meeting, mandatory technical and operational measures to reduce emissions of greenhouse gases from international shipping were adopted by an overwhelming majority of Parties to MARPOL Annex VI (Regulations for the prevention of air pollution from ships) of the IMO. Nearly fifty states voted in favour, only five against while some abstained. The approval of the mandatory, non-discriminatory rules on energy efficiency needs to be considered as an important step towards combating climate change in international shipping.

5.3.1. Technical and operational measures

The amendments to MARPOL Annex VI establish a mandatory Energy Efficiency Design Index (EEDI) for all new ships, and a Ship Energy Efficiency Management Plan (SEEMP) for all existing and new ships. The EEDI required ship architects and builders to comply with minimum efficiency standards while providing flexibility to identify the most cost-efficient technological solution to achieve these standards. The SEEMP requires ship operators to monitor and to improve the energy efficiency of their ships. The new regulations apply to all ships with 400 gross tonnage or more and will enter into force on 1st January 2013.

Furthermore the MEPC agreed to the development of EEDI and SEEMP related guidelines and to the terms of reference for an inter-sessional working group on extending the regulation to ship types and sizes currently not yet covered by the EEDI, scheduled to take place in February 2012.

The final compromise on the establishment of the EEDI was promoted by Singapore which suggested a phase-in period during which flag state administrations can exempt its own ships from the application of the new regulation. In addition, Singapore proposed to enhance technical cooperation and technology transfer, drawing on a resolution of Japan and Marshall Island on this issue. With these elements many developing states, especially LDCs and SIDS, were able to support the amendments.

Finally, many developing states, especially LDCs and SIDS, supported the suggested compromise. However, Brazil, China and Saudi-Arabia, all Parties to MARPOL Annex VI, voted against the amendments, as well as Chile and Kuwait. The usual references to common but differentiated responsibilities (CBDR) were continuously made. India spoke also against the adoption of the amendments at this session, but could not vote because India is not a Party to MARPOL Annex VI. South Africa, also a MARPOL non-Annex VI Party, distanced itself to some extent from the other BASIC countries and seemed to be slightly positive towards the compromise which was reached. Argentina, Ecuador, Venezuela, Bolivia, Cuba, Mexico, Peru, Uruguay, Oman, Qatar and Angola also objected the adoption of the new regulation. Some of them stated that the new rules were not yet mature for adoption.

5.3.2. Market-based mechanisms

Due to the intensive discussions on technical and operational measures the MEPC did not manage to further consider the development of market-based mechanisms at its 62nd session. The discussion was postponed to the 63rd session of the MEPC in March 2012.

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. 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 in 2010 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 17 (GEF 2011). The main points include:

- During the GEF-4, the GEF Secretariat implemented a number of key reforms directed towards improving the effectiveness and efficiency of the partnership. As a result, the performance of the GEF has improved significantly. Allocation of the funds to LDCs and small island developing states (SIDS) has increased to 18 per cent of all resources in GEF-4 from 12 per cent in GEF-3. The time to process FSPs from concept approval to CEO endorsement has been reduced from 44 months to an average of 16 months. The results-based management (RBM) Framework has become the framework for developing programming strategies. The corporate budget support for three Implementing Agencies was abolished, and all the GEF Agencies were provided with the same level of fees to implement projects.

- 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 per cent compared to GEF-4.
- The funding of projects on climate change mitigation through the Trust Fund and for adaptation through the specialized funds has proceeded at a level and pace expected, and that a first multi-trust fund project has been initiated in the area of technology transfer, in which also otherwise significant progress is reported, and that the streamlining of the project cycle has continued in accordance with decisions and recommendations made;
- The GEF has met all requests to support National communications and that as of June 2011 143 non-Annex 1 countries have received funding for the preparations of their National Communications;
- As of June 2011, 48 least developed countries (LDCs) have received GEF LDCF funding for, and 45 have completed, the preparation of their National Adaptation Programmes of Action;
- The GEF, together with its partner agencies, continues to provide significant capacity building support to developing countries, and that the reporting on these activities has been improved and made more informative;

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.

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 Fifth Assessment Report (AR5) is now underway. It will consist of three Working Group (WG) Reports and a Synthesis Report, to be completed in 2013/2014:

- WG I: The Physical Science Basis - mid September 2013
- WG II: Impacts, Adaptation and Vulnerability - mid March 2014
- WG III: Mitigation of Climate Change - early April 2014
- AR5 Synthesis Report (SYR) - October 2014

The AR5 will provide an update of knowledge on the scientific, technical and socio-economic aspects of climate change. More than 800 authors, selected from around 3000 nominations, are involved in writing the reports. First Lead Authors meetings have been held.

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.

In the next IPCC session in Kampala from 18-19 November 2011, it is expected that the Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation will be finalized.

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.

- **Global Environment facility (GEF):** The GEF is an operational entity of the financial mechanism of the Convention that provides financial support to the activities and projects of Non-Annex I Parties. The COP regularly provides guidance **to the GEF.**
- **IPCC Intergovernmental Panel on Climate Change:** The IPCC is a scientific body. It reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change. It does not conduct any research nor does it monitor climate related data or parameters. The COP receives the outputs of the IPCC and uses IPCC data and information as a baseline in.
- **Technology Executive Committee (TEC):** The Technology Executive Committee (TEC) is the policy arm of the Technology Mechanism. The Technology Mechanism's overarching goal is to sharpen the focus, step up the pace, and expand the scope of environmentally-sound technology development and transfer in a highly qualitative way. The key functions of the TEC are to consider and recommend actions to promote technology development and transfer in order to accelerate action on mitigation and adaptation, to provide an overview of technological needs and to catalyse the development and use of technology road maps or action plans at the international, regional and national levels through collaboration with relevant stakeholders including governments, relevant international and regional organizations, the private sector, non-profit organizations, academic and research communities to support action on mitigation and adaptation on the ground.

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 joined the group.
- **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.
- **BASIC countries:** Brazil, South Africa, India & China
- **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 analysing 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.

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