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The Development of Climate Negotiations in View of Doha (COP 18)

STUDY

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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 2012 and provides short overviews for all negotiation areas. The overview also includes a state of play of the Durban 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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LIST OF ABBREVIATIONS

AAU	Assigned Amount Unit
ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AGF	high-level advisory group on finance appointed by the United Nations Secretary General
ALBA	Bolivarian Alliance for the Peoples of our Americas (section 4.5)
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
BASIC	Brazil, South Africa, India and China
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)
CO_2eq	Carbon dioxide equivalent
CMP	Conference of the Parties serving as the meeting of the Parties
COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
DP	Durban Platform
EB	Executive Board of the CDM
EIT	Economies in transition
EC	European Commission
EU	European Union

EU ETS	European Union Emissions Trading Scheme
FAA	Framework for Action on Adaptation
FMRL	forest management reference level
FVA	Framework for various approaches
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
LMDC	Like Minded Developing Countries
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
NMM	New market-based mechanism
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OECD DAC	OECD Development Assistance Committee
OPEC	Organization of Petroleum Exporting Countries
QELROs	Quantified Emissions Limitation and Reduction Commitments
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
UNEP	United Nations Enviromenmt Programme
UNFCCC	United Nations Framework Convention on Climate Change

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EXECUTIVE SUMMARY

The main challenges on the table for Doha are the agreement of an amendment for a second commitment period under the Kyoto Protocol, and establishing the foundations and the work programme to develop a global and comprehensive legally binding instrument for all Parties under the Convention in 2015 following the agreement on the Durban Platform for Enhanced Action and to ensure that action is already taken before 2020.

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

- An agreement on an ambitious work programme in the negotiations under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) for a new international, legally binding agreement until 2015. It will be important whether a substantial change in the approach can be achieved, e.g. related to dissolving the strict division between Annex I and Non-Annex I Parties;
- The enhancement of the level of ambition to close the gap between the currently pledged mitigation targets and the emission reductions necessary to achieve the 2° degree objective closing the pre-2020 mitigation ambition gap and to identify concrete options on how to close the gap and build political momentum for increased ambition for all, e.g. through support for the concept of international cooperative initiatives;
- The adoption of an amendment for a second commitment period of the Kyoto Protocol, including decisions that ensure its implementation from 1st January 2013 onwards;
- The negotiation process under the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) is expected to be closed and it will be important how individual topics from this work process will be carried forward, e.g. the clarification of mitigation pledges for 2010 and accounting rules for targets of the non-Kyoto Annex I Parties and the design of new market mechanisms, the work related to the implementation of the REDD+[1] mechanism and a review of the achieved action in 2013-15;
- The continuation of financial support after 2012 when the fast-start finance period ends and the development of a work programme on long-term finance;
- The further implementation of the Green Climate Fund;
- The further development and implementation of the new processes and institutions set up in Cancun and Durban, such as the Adaptation Committee and the Technology Mechanism;
- The further implementation of the decisions taken in Durban related to monitoring, reporting and verification (MRV) of mitigation action and finance for developed and developing countries.

[1] REDD+ = Reducing emissions from deforestation and forest degradation and for promoting conservation, sustainable management of forests and enhancement of forest carbon stocks

1. GENERAL ISSUES IN CLIMATE NEGOTIATIONS BEFORE DOHA

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 18) in Doha, Qatar, from 26th November to 7th December 2012. 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 the Environment, Public Health and Food Safety and prepared by the Öko-Institut e.V. (Institute for Applied Ecology).

Chapter 1 of the study gives an overview on the negotiation situation in 2012, starting with the results from the previous COP in Durban and looking at the progress made during 2012 prior to the conference in Doha. Chapter 2 addresses the main issues in the negotiations which are the work related to the Durban Platform for Enhanced Action, the outstanding issues under the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), the work on an amendment for a second commitment period under the Kyoto Protocol, mitigation commitments, monitoring, reporting and verification, finance, deforestation, flexible mechanisms, emissions from international transport, technology transfer, adaptation and capacity building. The third chapter gives an overview of the positions of the main negotiating Parties apart from the EU. 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 17 in Durban

The Durban Agreement (Decision 1/CP.17 and Decisions 1 to 5/CMP.7) includes the following political agreement

- A new process was launched to develop a protocol or another legal instrument or agreed outcome with legal force under the Convention which is applicable to all Parties. For this purpose a new subsidiary body was established: the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). A new legal instrument shall be agreed no later than 2015 and come into effect and be implemented from 2020 onwards.
- The decision was taken to launch a work plan on enhancing mitigation ambition to identify and to explore options for a range of actions that can close the ambition gap between the pledged emission reductions and the mitigation efforts to achieve the 2° degree objective and to ensuring the highest possible mitigation efforts by all Parties.
- It was agreed to continue the process of clarifying the developed country Parties' pledges for quantified economy-wide emission reduction targets.
- Parties also agreed on further elements and details related to the review to assess the adequacy of the long-term global goal, and the overall progress made towards achieving it. This review will start in 2013 and should be concluded by 2015.

- Parties agreed that the second commitment period under the Kyoto Protocol would start on 1 January 2013 and reached consensus on a number of the applicable rules for the second commitment period.
- The Green Climate Fund was launched as an operating entity of the financial mechanism of the Convention and will support projects, programmes, policies and other activities in developing country Parties. Interim arrangements and an interim secretariat were established to be in place until final arrangements of this new body are made. Parties were required to provide funding to the fund as soon as possible.
- For measurement/monitoring, reporting and verification (MRV) of developed countries guidelines for biennial reports on the mitigation progress achieved and on the support provided were agreed as well as modalities for a new process called 'international consultation and analysis' (ICA) to assess these reports.
- For MRV of Non-Annex I Parties, guidelines for a biennial update report, including a national inventory report and information on mitigation actions were agreed as well as modalities and guidelines for a process of 'international consultations and analysis' of these reports.
- The agreement defined a new market-based mechanism, operating under the COP, to promote mitigation actions in developing countries.
- In Durban decisions were taken related to a registry for nationally appropriate mitigation actions (NAMAs) and support for those NAMAs that specify that the registry should be developed as a dynamic, web-based platform managed by the secretariat. Parties were invited to submit information on NAMAs to be recorded in the registry.
- The Durban decisions specified the terms of operation for the Adaptation Committee and the development of a future work plan.
- In Durban the terms of reference, operating modalities and functions of the Climate Technology Centre and Network (CTCN) were adopted.

The EU was able to closely cooperate with progressive countries from Latin America, with AOSIS (Alliance of Small Island States) and LDCs (Least Developed Countries), and partly also the African Group.

1.3. Implementation of the Durban Platform for Enhanced Action

1.3.1. Agreement achieved in Durban

After continued negotiations and with a delay of almost two days Parties agreed in Durban to establish the Durban Platform for Enhanced Action (DP). This decision launches a "process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties" (1/CP.17, paragraph 2). Parties agreed to adopt the new instrument no later than 2015 and that it should come into force by 2020. In addition Parties decided:

- to establish the Ad hoc Working Group on the Durban Platform for Enhanced Action (ADP) which shall work towards the new instrument and start its work in the first half of 2012 as a matter of urgency;
- that the process under the ADP shall raise the level of mitigation ambition, taking into account the outcomes of Fifth Assessment Report of the IPCC; and

- to launch a work programme on enhancing mitigation ambition aiming at identifying options and actions that can close the ambition gap through the highest possible mitigation efforts by all Parties.

The EU welcomed the decision and considers it as a major success of EU climate diplomacy since it brings all major emitters, including the USA, China and India into a roadmap towards accepting legally binding cuts in their greenhouse gas emissions. The USA also welcomed the decision because it includes the symmetry which they were looking for.

1.3.2. Negotiation process in 2012

The first meeting of the ADP in May 2012 in Bonn was characterized by procedural discussions, particularly on co-chairs and the agenda. Only on the last day of the Bonn session Parties found an agreement on both issues.

Future sessions will be co-chaired by representatives from developing and developed countries. On the developing country side the first chair will be from India followed by Trinidad and Tobago and finally by a representative from the African Group. For the developed countries Norway will start chairing the sessions in 2012 while the chairs for 2013 to 2015 still need to be determined. With regard to the agenda parties agreed to separate two main work streams:

- elaborating a new legally binding instrument until 2015 that shall enter into force by 2020; and
- preparing a work programme for increasing the mitigation ambition and addressing the mitigation gap before 2020.

From the EU's perspective it was important to separate both issues in individual work streams in order to avoid that work on increasing the pre-2020 mitigation could be blocked due to limited progress under the other work stream.

Parallel to the first session of ADP a workshop on increasing the level of mitigation ambition was conducted. Compared to the difficult negotiations, this workshop proceeded quite constructively. Barbados, Gambia and to some extent also Japan made similar suggestions as the EU in terms of increasing the mitigation ambition before 2020. In addition Brazil contributed comparable suggestions but also claimed that differences between Annex I and non-Annex I countries need to be taken into account.

The September session of ADP in Bangkok included substantive discussions on both work streams in a constructive and interactive atmosphere. The initiative of the co-chairs to hold focused informal roundtables resulted in a useful initial exchange of views and ideas.

The first roundtable addressed the 2015 agreement and identified the issues which need to be tackled in the sessions up to 2015. From the discussions it became clear that much work needs to be conducted to reach a common understanding on how all parties can contribute to ambitious mitigation action in a post-2020 world while acknowledging the principles of the UNFCCC, particularly the principle of common but differentiated responsibilities (CBDR) and respective capabilities.

The second roundtable addressed the issue of increasing the mitigation ambition before 2020. Many Parties provided ideas on how to enhance mitigation action in Doha with the view to complementing existing national pledges. However, such initiatives would require preparatory work before Doha but BASIC countries, and to some extent also the USA, rejected the EU's and AOSIS's suggestion of additional informal sessions before Doha to move the process forward.

The challenge for Doha will be to incorporate the ideas introduced at the informal roundtables into the more detailed deliberations required for a work programme towards adopting the new instrument in 2015.

The key task in Doha will be to establish concrete milestones and inputs for the work process in 2013 on both elements, the work towards an overarching legally binding instrument and the process to examine options to enhance pre-2020 mitigation ambition to close the ambition gap.

With the aim of increasing the mitigation ambition prior to 2020, the EU has proposed international cooperative initiatives (ICIs) with the aim of acknowledging the need to stimulate and catalyse mitigation actions at all levels and through all possible channels, to agree to consider those ICIs further with a large quantified potential to bridge the ambition gap, to consider the role of the UNFCCC to support such initiatives, and to serve as a forum to recognise and increase visibility of such initiatives. As examples for such complementary initiatives the EU proposed in its submission under ADP in March 2012 to address emissions from HFCs, continued work through ICAO and IMO, phasing out of fossil fuel subsidies, enhanced action on REDD+, scaling up efforts to promote renewable energy and energy efficiency and reducing short-lived climate forcers (UNFCCC 2012). As another example for such additional initiatives, Blok et al. (2012) recently estimated that 21 coherent major initiatives globally could stimulate sufficient emissions reductions by 2020 of about 10 Gt CO_2eq. to bridge the global GHG emission gap and create benefits of enhanced air pollution reduction. Such initiatives would represent more a bottom-up approach of contributions by diverse actors compared to the top-down approach of national mitigation targets, however some double-counting between such initiatives and national targets will occur and has to be subtracted from the total effects.

From 21-23 October 2012, the pre-COP took place chaired by Qatar and South Korea in Seoul in which 43 countries participated. Participants emphasised that the balance achieved in the Durban package should be maintained. It was proposed to organise the debate in Doha in roundtable discussions at ministerial level. Key debates for Doha will be the detailed elements for the second commitment period of the Kyoto Protocol and whether the future agreement will include a spectrum of commitments for all countries or the clear divide between Annex I and non-Annex I Parties. The closure of AWG-LCA will also be a key question, in particular how exactly the open work streams under the LCA will be addressed by decisions in Doha.

1.3.3. Position of Parties

The overarching divide between Annex I and Non-Annex I Parties under the ADP work is whether and how the clear separation between these groups of Parties should be modified and replaced by a more differentiated spectrum of commitments.

OPEC countries (Saudi Arabia, Egypt) showed little interest in 2012 in progress under the ADP and made use of procedural disputes to delay the start of substantive work. To some extent China also tried to prevent a discussion on raising the mitigation ambition, though during the course of 2012 it took a more moderate position.

The so-called group of like-minded countries, which includes inter alia several Arabic and ALBA countries but also some middle-income countries such as Philippines, Pakistan and Argentina, fears that the clear distinction of commitments for developed countries and voluntary action by developing countries may be abolished through the ADP. This group tries to make progress under the ADP contingent on progress under the AWG-LCA.

Starting with the assumption that developed countries have not met their obligations in the last 20 years, they also claim that future contributions to global mitigation efforts need to be based on historic emissions.

The USA, on the other hand, considers Durban as the start of a new era in which the clear distinction between developing countries (non-Annex I) and developed countries (Annex I) is increasingly dissolving. Any reference to the work under the LCA is therefore rejected. The USA requests that the projected share in global GHG emission in 2020 should be the basis for determining future contributions to global mitigation efforts.

The majority of countries, particularly the EU and their allies from Durban – namely progressive Latin American countries, AOSIS, LDCs and African countries – but also Brazil and South Africa want to use the ADP for increasing the mitigation ambition pre- and post-2020. They aim at replacing the non-Annex I/Annex I divide by a spectrum of commitments derived from both historic and projected emissions.

1.4. Amendment of the Kyoto Protocol

1.4.1. Agreement achieved in Durban

At COP 17 in Durban, Parties agreed that the second commitment period under the Kyoto Protocol would start on 1st January 2013 and reached consensus on a number of the applicable rules, in particular on:

- the rules how to account for land use, land-use change and forestry activities;
- the methodological guidelines for estimating greenhouse gas emissions and removals and the revision of global warming potentials to convert individual greenhouse gases into a common unit of CO_2equivalents; and
- a continued use of flexible mechanisms.

1.4.2. Negotiation process in 2012

In 2012 a negotiation text for an amendment of the Kyoto Protocol that inscribes targets for the second commitment period was developed that still includes options and disagreement in the following areas:

- the duration of the second commitment period,
- the continued eligibility to use the market mechanisms,
- the carry-over of surplus Kyoto units from the first to the second commitment period, and
- the legal continuity in the period before Parties formally ratify the new amendment and before it enters into force.

The USA, Russian Federation and Japan clearly indicated that they will not participate in a second commitment period under the Kyoto Protocol. The EU, Norway and Switzerland committed to a willingness to adopt targets for a second commitment period under the Kyoto Protocol.
Australia and New Zealand have not yet communicated a clear decision on whether or not they will be part of a second commitment period. The Ukraine announced its willingness to continue with a target for the second commitment period, but has not so far submitted a numerical pledge. The lack of full clarity on participation and the respective level of ambition was criticised by many Parties.

With such limited participation the Kyoto Protocol would only cover about 16% of global emissions. Thus a second commitment period with reduced participation of this kind is unlikely to achieve the globally necessary emission reductions.

Until May 2012 Annex I Parties submitted quantified emission limitation and reduction objectives (QUELROs) to be inscribed in the amendment for the second commitment period (see presentation in section 2.1.3)

1.4.2.1. Duration of the second commitment period

With regard to the duration of the second commitment period (CP2) the EU wants an 8-year commitment period (2013-2020) in line with the decisions on the EU climate and energy package. The Alliance of Small Island States (AOSIS), ALBA and the Least Developed Countries (LDCs) proposed a 5-year commitment period (2013-2017) and to relate this decision with the level of ambition. However, a 5-year commitment period would create a gap in commitments before 2020 (start of a new global agreement) for the years 2018/2019.

1.4.2.2. Eligibility to use the market mechanisms

The discussion on the continued eligibility to use the market mechanisms has several aspects:

On the one hand those Parties that agree to commit to a second commitment period under the Kyoto Protocol want to have continued access to the flexible mechanisms and want a direct continuation at least of the CDM in the second commitment period. For JI and international emissions trading such a continuation is more difficult because it is likely that AAUs (assigned amount units) for the second commitment period will only be issued in 2016, and international emission trading and JI depend on the issuance of such units. AOSIS and some other G77 Parties have recently opposed proposals for decisions that would ensure a smooth continuation of the CDM and transactions of CERs, the units resulting from CDM projects. AOSIS also links the continuation of the flexible mechanisms with the ratification and entry into force of the amendments. If no agreement can be found in Doha, during a period between 2013 and 2016 no CDM credits (CERs) for emission reductions that occurred in the second commitment period could be transferred to Parties and would only be transferred retrospectively in 2016 once the assigned amount for the second commitment period is issued. The continuation of the CDM is important for the EU, but even more for Norway which has an ambitious mitigation target for the second commitment period which depends on the use of CDM. The EU and other Annex I Parties are generally also in favour of a direct continuation of other flexible mechanisms; however they have so far not made any specific text proposals for how this should be achieved.

The second aspect related to eligibility to use market mechanisms under the Kyoto Protocol is the question of whether Kyoto Parties without a quantitative target for the second commitment period have access to the flexible mechanisms, in particular the CDM. Japan wants to keep using the CDM and wants to keep fulfilling the reporting and accounting requirements in a second commitment period in the absence of a Kyoto target after 2012. This is opposed by AOSIS and developing countries.

1.4.2.3. Carry-over of surplus Kyoto units from the first to the second commitment period

On the issue of the carry-over of surplus Kyoto units from the first to the second commitment period, developing countries presented a common proposal in September 2012 in Bangkok.

Full carry-over of surplus units is in line with the existing decisions, but due to non-ambitious targets for the first commitment period for the Russian Federation, the Ukraine and some other EIT countries (Economies in transition), a significant surplus will exist at the end of the first commitment period, which strongly reduces the ambition of the current targets, if these units will be transferred, traded and used in the second commitment period. Estimates for the carry-over of these unused units amount to 6% of the aggregate Annex I emissions in 1990. The proposed text from the G77 would allow a full carry-over of surplus units but restricts their use to domestic compliance in the second commitment period for emissions over and above the allowed emission budget of those countries with such a surplus in 2012-2020. The proposal of the G77 presented in Bangkok also caps the allowed emissions in the second commitment period at the level of 2012 emissions; thus no growth targets above the 2012 emission levels would be allowed. The Russian Federation, the Ukraine and Belarus rejected the proposal as they all presented pledges that include such growth targets.

1.4.2.4. Legal continuity

The discussion of the legal continuity in the period before an amendment enters into force is a conflict between AOSIS and the EU. AOSIS proposed a text that Kyoto Parties shall provisionally apply the amendments to the Kyoto Protocol starting from 1 January 2013 before formal ratification and entry into force. However, a decision on a provisional application of this kind would require similar legal procedures in national parliaments like the ratification of the amendment itself. Therefore Annex I Parties that want to commit to a second commitment period are convinced that the AOSIS proposal is not able to provide legal clarity for the period before ratification. The EU proposed text that Kyoto Parties should apply their commitments and other responsibilities under the amendments to the Kyoto Protocol prior to the entry into force and implementing decision for this period.

1.5. Work under the AWG-LCA in 2012

In Durban, many decisions were agreed under AWG-LCA, the Ad hoc Working Group for Long-term Cooperative Action under the Convention and the work of the group was extended until the end of 2012. The future work in these agreed areas will be undertaken by the regular subsidiary bodies of the Convention, the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI).
The AWG-LCA did not fulfil the expectations with which it started when the Bali Action Plan was agreed, which was an overarching international agreement for GHG mitigation covering all major emitters.

In 2012 the remaining work of AWG-LCA was difficult, also because a chair from Saudi Arabia was elected in 2012. The remaining issues on the agenda in 2012 are mostly the most controversial issues for which no agreement could be achieved, neither in Cancun nor in Durban. However, most Parties have some elements in this “basket”, for which they like a continuation of the discussions whereas they strongly oppose some other work streams on other topics. The challenge for Doha will therefore be what a balanced package will look like in terms of the remaining issues and what other bodies these issues will be forwarded to. If many controversial issues are directly forwarded to ADP, the ADP work process may have a difficult start and be blocked with the most controversial issues at the beginning.

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

In 2012 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 industrialised 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.

In the future the discussions under the ADP will again strongly depend 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 previous sessions that allows the US administration to accept a stringent legally binding global agreement. As a result the EU can contribute to the success in a somewhat limited way. It is unlikely that the forthcoming US elections will bring about a significant change in US climate policy.

During the previous COPs 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 progressive Latin American countries can contribute to ALBA countries adopting a more constructive position.

2. INDIVIDUAL TOPICS IN CLIMATE NEGOTIATIONS

2.1. Mitigation of greenhouse gas emissions

2.1.1. Agreement achieved in Durban

- The Durban decision (Decision 2/CP17) recognises the need 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 Cancun and Durban decisions no timeframe for a peak in global emissions could be agreed.
- Shortly after the COP 15 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 Cancun decision, but not converted into legally binding commitments in an international agreement. Some of these pledges were slightly updated and modified in 2012 and the Kyoto Parties submitted quantified QUELROs in 2012. However, the general situation did not change in 2012.
- 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 Cancun decision invites developing countries to submit further pledges for NAMAs and some additional pledges or clarifications of existing pledges were submitted in 2012. 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.
- In Durban further work to increase the mitigation ambition was agreed. A number of workshops were held in 2012 to discuss the increase of ambition of mitigation commitments.

2.1.2. Necessary emission reductions

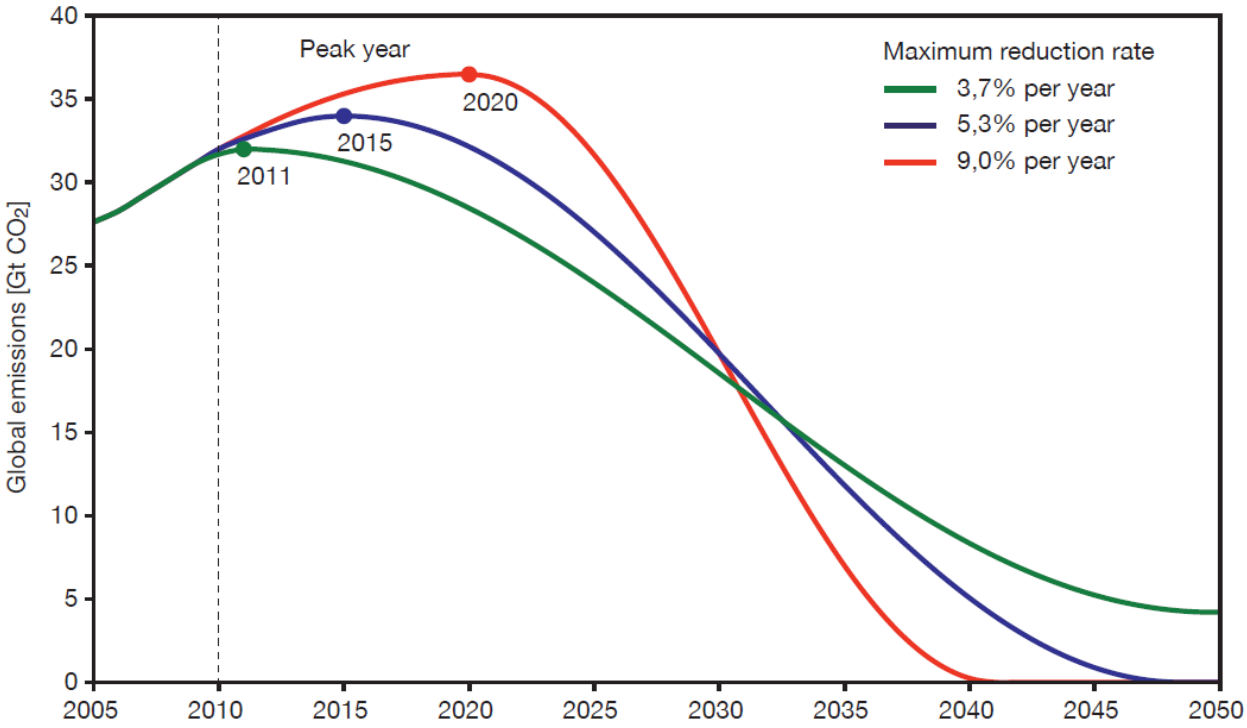
Recent literature reinforces the evidence provided by the 4th IPCC Assessment Report that limiting warming to less than 2°C above pre-industrial temperatures considerably reduces the risk of triggering accelerated or irreversible changes in the climate system as well as large-scale adverse impacts. Nevertheless, significant risks do still remain. The 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).[2]

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 the baseline (den Elzen and Höhne 2008). Converted to absolute figures studies show that emission levels of approximately 44 Gigatonnes of CO_2 equivalent ($GtCO_2eq$) (range: 41-46 $GtCO_2eq$) 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: 55-59 $GtCO_2eq$) in 2020, leaving a gap of 12 $GtCO_2eq$ (range 9-18 $GtCO_2eq$) (UNEP 2011) as shown in Figure 2.
Rogelj et al. (2011) show that global emissions have to peak between 2010 and 2020 to have a "likely" chance (>66%) of staying below 2°C during the 21st century. If global emissions will peak around 2020, they have to steeply decline by 2.6% per year (range 2.2-3.1%) afterwards.

Several studies (Meinshausen et al. (2009); WBGU (2009)) request an early peak year and even stronger reductions after the emissions peak to achieve the 2°C limit. The later global emissions will peak the stronger emissions have to decline after peaking to not exceed the 2°C limit (see Figure 1). If the peak year would be 2015 "the world would then have to meet *annual* emissions reduction targets equivalent to those established by the Kyoto Protocol for a full two decades" (WBGU 2009). Because of different assumptions, the different studies came to different conclusions about when global emissions should peak and the extent to which emissions should be reduced accordingly. But the studies are consistent with regard to the main message, namely that global emissions have to peak in a few years and then have to drop significantly. In 2050, global emissions must be about 46% lower than their 1990 levels to have a likely chance of complying with the 2°C limit (UNEP 2011).

[2] 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 to the future and that there are a number of thresholds along the way that are likely to result in 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.

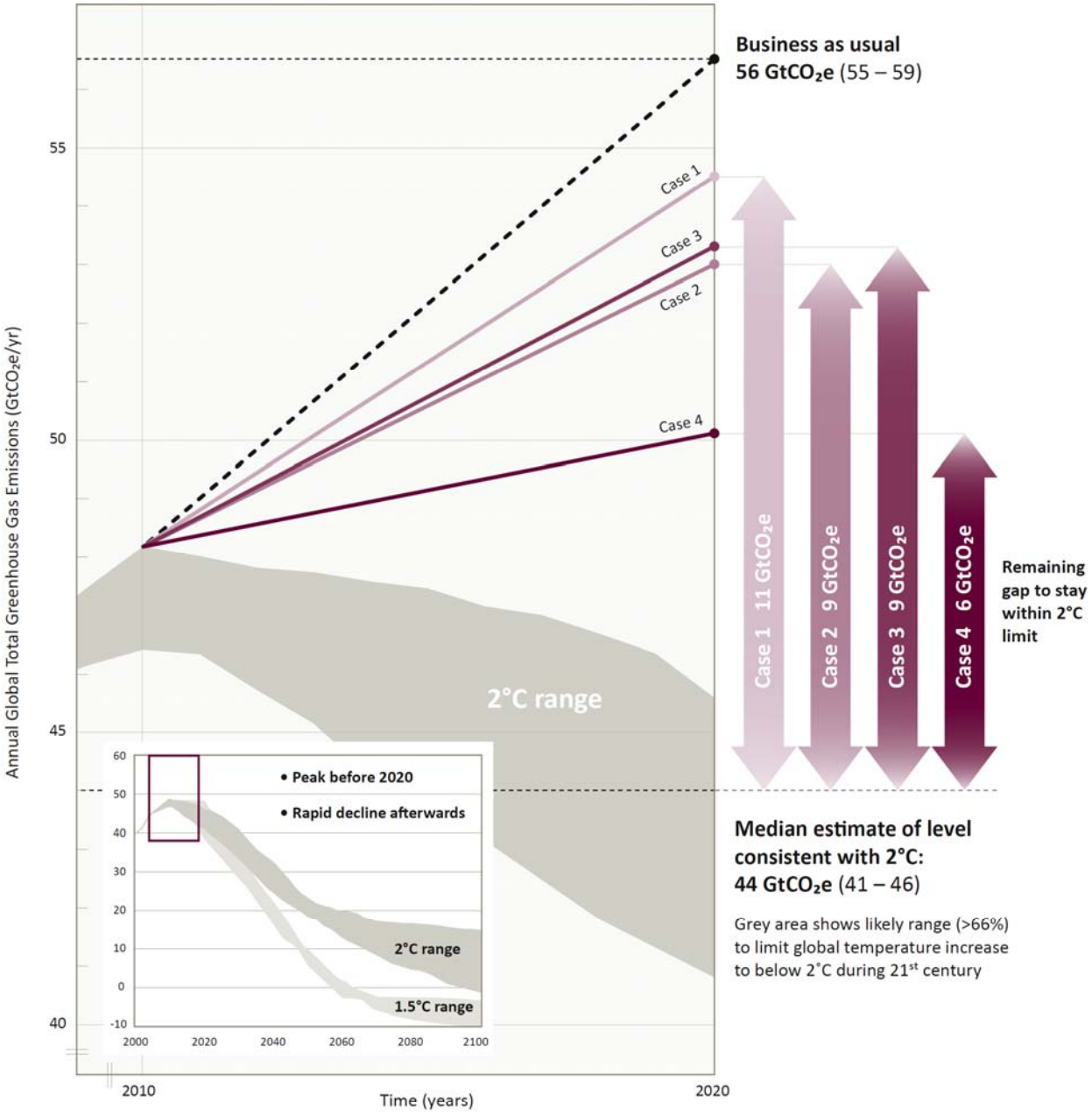
Figure 1:Examples of global emission pathways for the period 2010–2050



Note : Examples of global emission pathways for the period 2010–2050 with global CO2 emissions capped at 750 Gt during this period. At this level, there is a 67 % probability of achieving compliance with the 2 °C guard rail. The figure shows variants of a global emissions trend with different peak years: 2011 (green), 2015 (blue) and 2020 (red). In order to achieve compliance with these curves, annual reduction rates of 3.7 % (green), 5.3 % (blue) or 9.0 % (red) would be required in the early 2030s (relative to 2008).

Source: WBGU (2009)

Figure 2: The emission gap in the period 2010 to 2020



Case 1 – Unconditional pledges, lenient rules
If countries implement their lower-ambition pledges and are subject to "lenient" accounting rules, then the median estimate of annual GHG emissions in 2020 is 55 $GtCO_2e$, within a range of 53 – 57$GtCO_2e$.

Case 2 – Unconditional pledges, strict rules
This case occurs if countries keep to their lower-ambition pledges, but are subject to "strict" accounting rules. In this case, the median estimate of emissions in 2020 is 53 $GtCO_2e$, within a range of 52 – 55 $GtCO_2e$.

Case 3 – Conditional pledges, lenient rules
Some countries will be more ambitious with their pledges. Where this is the case, but accounting rules are "lenient", median estimates of emissions in 2020 are 53 $GtCO_2e$ within a range of 52 – 55 $GtCO_2e$. Note that this is higher than in Case 2.

Case 4 – Conditional pledges, strict rules
If countries adopt higher-ambition pledges and are also subject to "strict" accounting rules, the median estimate of emissions in 2020 is 51 $GtCO_2e$, within a range of 49 – 52 $GtCO_2e$.

Please note: All emission values shown in the text are rounded to the nearest gigatonne.

Source: UNEP (2011)

2.1.3. Mitigation commitments of developed countries

During the course of 2012, the mitigation pledges of Annex I Parties did not change much 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. In 2012, Belarus specified its pledge to 8 % below base year emissions (before: range -5 % to -10 %) and Kazakhstan changed its base year from 1992 to 1990 and its pledge to 15 % below base year emissions. 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 in 2020 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 current pledges correspond to a 50% chance that the increase in temperatures will exceed 3°C by 2100. Climate Analytics, PIK and Ecofys project that the global mean temperature will increase by 2.6 – 4.1 degress Celsius by 2100 if no further action beyond current pledges is taken (Vieweg et al. 2012).

Table 1: Annex I reduction pledges in 2020 (in %) for different base years excl. LULUCF

	% relative to 1990	% relative to 2000	% relative to 2005
Australia	13/ 1/ -11	-5/ -15/ -25	-11/ -21/ -30
Belarus	-8	62	52
Canada	3	-15	-17
Croatia	-20/ -30	-3/ -16	-17/ -28
EU-27	-20/ -30	-12/ -23	-13/ -24
Iceland	-15/-30	-24/ -37	-24/ -37
Japan	-25	-29	-30
Kazakhstan	-15	65	25
Liechtenstein	-20/ -30	-28/ -37	-32/ -41
Monaco	-30	-37	-28
New Zealand	-10/ -20	-22/ -31	-29/ -37
Norway	-30/ -40	-35/ -44	-35/ -45
Russian Federation	-15/ -25	39/ 23	34/ 18
Switzerland	-20/ -30	-18/ -29	-22/ -31
Ukraine	-20	87	73
USA	-3	-16	-17
Annex I	-12 to -18	-11 (high end)	-13 (high end)

Notes: Base year used by the Party is shown in bold. Several numbers indicated several targets linked with different conditions.
Source: Adapted from Duscha et al 2010, figures updated based on presentations provided in AWG-KP in 2012.

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 in the first commitment period. 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. It is difficult to assess the quantitative impacts due to options to elect for the accounting of LULUCF activities in the second commitment period. Some preliminary estimates assume that the overall emission reduction decreases by another 5 % of 1990 emissions for all years between 2013 and 2020 if the accounting of LULUCF activities is included.

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

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

- If the lowest ambition pledges were implemented with the use of AAU surplus and LULUCF, emissions could be lowered slightly to 55 $GtCO_2$eq (range: 53-57 $GtCO_2$eq), leaving a significant **gap of 11 $GtCO_2$eq** (UNEP 2011).
- If countries were to move to the higher end of the emission reduction pledges and if a net increase of emissions were avoided by strict rules for LULUCF and surplus AAUs the gap could be reduced substantially, the emissions in 2020 could be lowered to 51 $GtCO_2$eq (range: 49-52 $GtCO_2$eq), reducing the size of the **gap to 5 $GtCO_2$eq** (which is still almost 60 % of the way towards reaching the 2° C target) (UNEP 2011).

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 3: Necessary and current emission reduction pledges by Annex I countries

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, the 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).

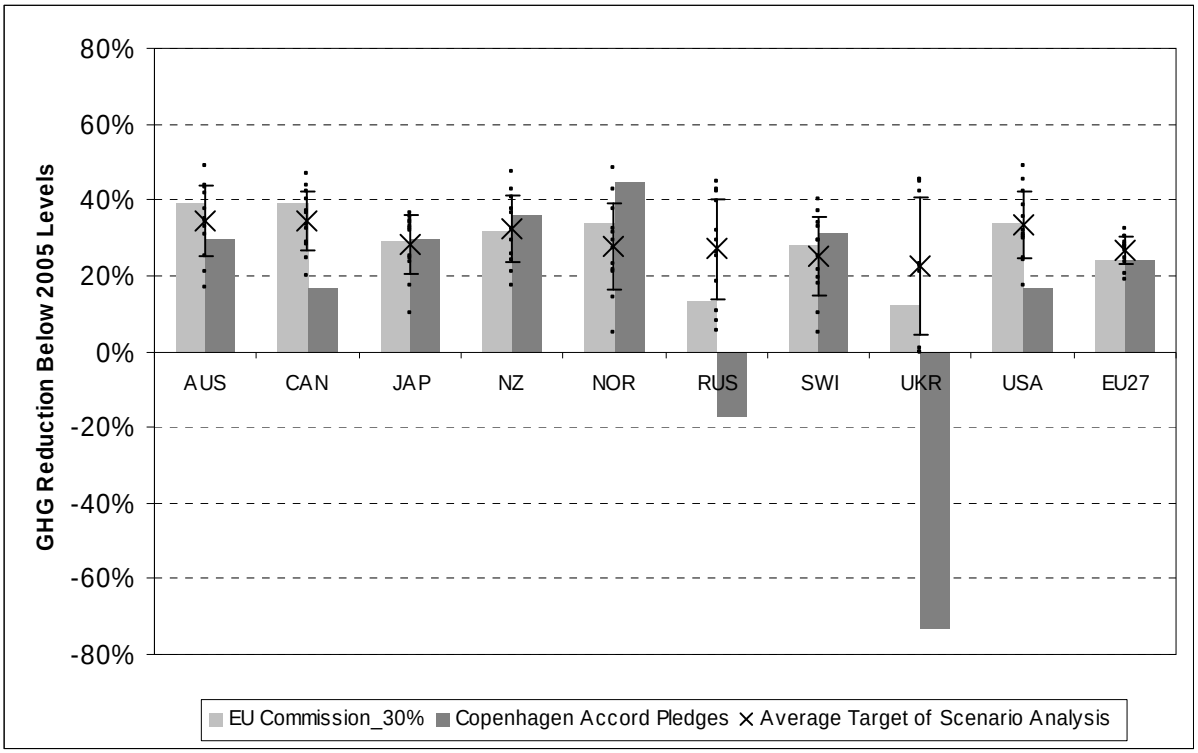
Table 2: Absolute emission targets and reductions of Annex I Parties (high end of range)

	Emissions [Mt CO_2eq]			Target [Mt CO_2eq]		
	1990	2005	2020 BAU	2020 Target	Reduction to 1990	Reduction to BAU
Australia[(a)]	419	528	539	372	-46	-167
Belarus*	139	84	128	128	-11	0
Canada	591	734	614	609	18	-5
Croatia	31	30	30	22	-9	-8
EU-27	5 589	5 149	4 394	3912	-1677	-481
Iceland	3	4	3	2	-1	-1
Japan	1 267	1351	950	950	-317	0
Kazakhstan	377	256	306	320	-57	14
Liechtenstein**	0	0	0	0	0	0
Monaco**	0	0	0	0	0	0
New Zealand	59	75	54	47	-12	-7
Norway	50	54	35	30	-20	-5
Russian Federation*	3 369	2 136	2 846	2527	-842	-319
Switzerland	53	54	42	37	-16	-5
Ukraine*	933	431	744	747	-187	3
USA	6 167	7185	5131	5964	-203	833
Annex I pledges	19 047	18 071	15 816	15 667	-3 380	-148
Annex I -25%	19 047	18 071	15 816	14 286	-4 762	-1 530
Annex I -30%	19 047	18 071	15 816	13 333	-5 714	-2 483
Annex I -40%	19 047	18 071	15 816	11 428	-7 619	-4 387

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. ** Absolute emissions and emission reductions below 0.5 Mt CO2eq, therefore rounded to 0.
Source: Adapted from Duscha et al 2010, updated based on figures in FCCC/TP/2012/2 and from M.Meinshausen.

The EU's unilateral target of cutting emissions 20% by 2020 has lost much of its credibility since it was announced. As already highlighted in the 'analysis of options beyond 20% GHG emission reductions' by the Commission in February 2012, "*the effect of the EU's climate change policies and measures in the period 2005-2008, together with higher energy prices, already resulted in faster emissions reductions than originally expected when the Package was proposed. Secondly, the economic and financial crisis that started in 2008 resulted in further significant emissions reductions and a build up of a large buffer of banked allowances and unused international emission reduction credits in the EU emissions trading system (ETS) – potentially representing the equivalent of 2.4 billion allowances by 2020. Many Member States are now also projecting they will overachieve their target in the sectors outside the ETS under the Effort Sharing Decision*." (European Commission 2012)

Figure 3: 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
Gambia	Reduce the year 2000 national emissions by 50%
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

	NAMAs
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 contribution 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)
Bangladesh	Developing a fully fledged NAMA
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)

	Submission of individual NAMAs without quantified contribution to total national emission reduction
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)
Georgia	NAMA in energy sector
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)
Malawi	Developing NAMAs in the energy, agriculture, forestry and waste sectors; REDD strategy under development
Mauritius	Embarked on a comprehensive Sustainable Development Programme which prioritizes 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)
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.

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	882	618	-264	-30
Moldova	17	29	12	72
Republic of Korea	813	569	-244	-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	27 565	24 557	-3 008	-12

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

Source: Adapted from Duscha et al 2010, update with presentations provided in workshops on clarification of pledges.

2.1.5. Negotiation process in 2012

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 2012 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 question of whether to set up a process to increase the level of ambition and whether it should relate also to developing countries remains one of the key questions that was not resolved in Durban or during 2012 prior to the Doha session, the EU developed an approach to start 'international cooperative initiatives' (ICIs) to ensure the necessary mitigation efforts and early action prior to a new overarching agreement in 2015 which should be agreed in the high-level ministerial segment in Doha.

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.

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

2.2.1. Agreement achieved in Durban

Key elements of the monitoring, reporting and verification of mitigation actions of developed countries and support were agreed in Durban:

- **Guidelines for biennial reports** were agreed with the requirement to report on progress of mitigation action, projections and support. The start date for the first report will be 1st January 2014.
- It was agreed that **new methodologies would be developed to report on financial support** and the guidelines text already adopts the methodologies developed.
- **Modalities for the process of international assessment and review (IAR)** were agreed. This process assesses and evaluates biennial reports of Annex I Parties. The EU had requested a link to a non-compliance procedure from this process, which was not adopted. Now, the only consequence in this new process is that SBI will forward conclusions if Parties do not comply with their targets. No stakeholder/observer involvement is included in the multilateral consultation phase of the IAR procedure.
- **Revised guidelines for the reporting of Annex I national GHG inventories** were agreed that implement IPCC 2006 Guidelines for the reporting. Also revised global warming potentials (GWPs) were agreed for the reporting which are used to convert greenhouse gases into a comparable unit of CO_2equivalents. These decisions have impacts on the establishment of QUELROS and assigned amount for the second commitment period because it was decided that base year emissions will be recalculated with revised GWPs and 2006 IPCC methodologies. These revised emission estimates will only be submitted in 2015.
- With regard to the **accounting of progress towards targets under the Convention**, no rules or modalities, and not even a further work process was agreed in Durban. The EU had proposed such accounting modalities for a transparent and consistent assessment of targets, but the US blocked such provisions and was supported by BASIC countries in Durban. This means that it will be very difficult to achieve a consistent and comparable approach to assess the mitigation pledges provided by Annex I Parties in the future.

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. It remains unclear how flexible mechanisms and the LULUCF sector will be accounted outside the framework of the Kyoto Protocol. In the MRV discussions in Durban, it was not possible to commit the USA and other Annex I Parties no longer part of the Kyoto Protocol to similar reporting, verification and accounting standards.

2.2.2. Negotiation process in 2012

In 2012 a number of different topics were discussed related to MRV of Annex I Parties:

Common reporting tables for the guidelines for biennial reports

This work is important to achieve at least a common way of reporting on reduction targets and achievement of mitigation effects between all Annex I Parties. Revised and improved reporting tables are also foreseen for the reporting on finance. A workshop took place from 11-12 October 2012 in Bonn in a rather cooperative spirit where somewhat different views expressed by Parties in their submissions were condensed to more specific proposals for tables. The most difficult discussions on the tables in Doha will be to report on the achievement of progress with targets as these relate to important elements for the accounting of progress against targets. Whether the public will in the future be able to assess the progress of Non-Kyoto Parties like USA and Canada with their pledged targets, in particular the way in which they account for emissions and removals from the LULUCF sector and for units from flexible mechanisms, strongly depends on this work stream and the outcomes of Doha. There are no rules agreed so far under the Convention and no registry systems for units are in place outside the Kyoto framework that would track units and avoid double or multiple counting of such units. During the workshop in October this was also the most difficult discussion and where the least progress was achieved.

Accounting framework

The EU highlighted the importance of a common accounting framework for mitigation targets in the discussions within the scope of the AWG-LCA work in 2012 as no specific agenda item was agreed in Durban. This addressed more specifically the coverage of sectors and sources, metrics to convert gases to CO_2equivalents, common base years, common accounting rules for LULUCF and for the use of flexible mechanisms as part of the pledged targets. 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. One of the important areas in this regard is the tracking of units from flexible mechanisms outside the Kyoto framework. In this area, the US showed some openness in Bangkok to link to an international registry system that tracks units and avoids double counting of the same units by several countries. However, the US and Canada strongly oppose any decisions on accounting to be taken in Doha and it is therefore unclear whether a work stream on technical elements of accounting can be agreed at COP 18.

Work programme on the revision of the guidelines for the review of biennial reports and national communications, including national inventory reviews

Under this topic the revision of guidelines for the review of GHG inventories and national communications and designing further elements of the review of biennial reports of Annex I Parties is discussed.

The need for this work process arises for a number of reasons:

- Guidelines for GHG inventories under the Convention were revised in Durban, which requires a subsequent revision of guidelines for the review process;
- The review step of the new modalities for international assessment and review (IAR) agreed in Durban are rather general and may not yet provide sufficient guidance to the secretariat to start this process;
- Guidance for the review of national communications of Annex I Parties under the Convention is scattered in several decisions and a more streamlined set of guidance would be more transparent;

- The fact that more Annex I Parties withdraw from the Kyoto Protocol's thorough review procedures should lead to similarly rigorous review procedures under the Convention in order to achieve a comparable outcome for Kyoto and Non-Kyoto developed countries;
- The numerous review procedures are time-consuming and costly. In recent years there have been problems with the timing of the review procedures and funding which will get more difficult when the IAR procedure is added. Therefore some general streamlining of the review procedures and modalities that increase the efficiency of the implemented procedures are important to ensure the quality and implementation in the future.

A relatively short discussion took place in May/June 2012 in Bonn, which revealed different views between the EU and Umbrella Group countries with regard to an increased rigour of the review procedures under the Convention. G77 countries are sceptical with regard to any approaches to streamlining existing review procedures for Annex I Parties and are less concerned about the cost implications. The discussions are also influenced by the fact that Annex I Parties want to keep some balance between the progress under this agenda item and the development of modalities for international consultation and analysis of Non-Annex I Parties' biennial reports.

As the discussion started recently, it is not expected to already conclude with any revised guidelines in Doha, but rather with an agreed work plan specifying how this work on the review guidelines will be conducted in the subsequent 1-2 years.

Implications of Durban decisions under the Kyoto Protocol for the methodological decisions under the Kyoto Protocol (Articles 5, 7 and 8)

In Durban, a number of methodological changes were agreed for the second commitment period under the Kyoto Protocol, such as different accounting rules for LULUCF activities, the use of 2006 IPCC guidelines for GHG inventories in the second commitment period or revised global warming potentials. The ongoing work under AWG-KP will very likely lead to the need for additional changes at technical level, e.g. if new rules for the carry-over of surplus AAUs are agreed in Doha. In addition the existing methodological decisions that implement the Kyoto Protocol contain references that limit the provisions to the first commitment period. Therefore a technical work process was established which should prepare decisions that ensure the continuous technical implementation of the Kyoto Protocol in the second commitment period and in particular ensures that some of the flexible mechanisms, such as the CDM, will not be interrupted at the end of 2012.

Discussions commenced in May/June 2012 and continued in a workshop that took place from 8-10 October 2012. So far, the discussion has been very difficult between AOSIS/G77 and the EU. AOSIS is strongly arguing for a type of outcome that limits the changes to an absolute minimum and that incorporates many different changes into one overarching decision which would be very confusing for those that need to implement these decisions. The EU prefers one overarching decision with annexes that include new decisions for those parts that require many changes, such as the decisions on accounting modalities, reporting and review. If this work, in particular the accounting modalities and the links to CDM, cannot be resolved in Doha, no CERs from CDM projects for the second commitment period can be transferred from the CDM registry to Parties until 2016 when the new assigned amount for the second commitment period will be established. These units would need to be transferred retrospectively after 2016 for the earlier years.

2.2.3. Position of Parties

The most important dispute among Annex I Parties relates to internationally agreed accounting rules for mitigation targets. The USA and Canada prefer domestic decisions on accounting, e.g. for LULUCF or mechanisms and only the outcomes are reported at international level. The USA and Canada have also proposed rather intransparent ways of reporting on the achievement of domestic targets that would not allow comparing their efforts with other Annex I Parties.

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 flexible mechanisms.
- Agrees with enhanced reporting on finance as far as it is feasible and based on available data.

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;

G-77:

- 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.

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

2.3.1. Agreement achieved in Durban

Key elements of the Durban outcome relating to the MRV of developing countries include the following provisions:

- Guidelines for **biennial update reports** to be submitted by developing countries were agreed, which should contain 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.

- Modalities for the procedure to conduct **international consultations and analysis** (ICA) of biennial reports under the SBI were agreed. An analysis by technical experts in consultation with the Party concerned is followed by a consultation step among Parties through a facilitative sharing of views. The ICA process shall result in a summary report. 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.
- A 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 was already taken in 2011 and discussions on the implementation continued. This registry shall record and regularly update in the registry the information concerning 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 this registry were agreed in Durban.

However, the adopted guidelines for the content of the biennial update reports do not improve the information compared to guidelines for Non-Annex I National Communications and will therefore not provide transparent information on GHG inventories and mitigation actions for developing countries in a systematic way:

- Inventories will be reported for the year X-4 (X is the actual year); as the submission date is December, this means factually X-5 which is rather outdated.
- The guidelines only refer to the guidelines for Non-Annex I national communications which do not include any details on GHG inventories or emission data for sectors or a disaggregation to important source categories.
- For inventory data only summary tables are required. No process to develop reporting tables for the inventory data could be agreed.
- No process to revise Non-Annex I reporting guidelines for national communications could be agreed upon to improve in particular the sections on inventories of developing countries.
- There will be an inconsistent use of global warming potentials between Annex I and Non-Annex I Parties in the future. Developing countries can still convert individual gases to CO_2equivalent by using GWPs from Second IPCC Assessment Report, while developed counties will use GWPs from the Fourth IPCC assessment report.
- No synthesis and compilation report of the information from developing countries could be agreed.
- The 1st BURs will be reported by December 2014 which is too late for consideration as part of the review of adequacy of commitments.

2.3.2. Negotiation process in 2012

Composition, modalities and procedures of the team of technical experts under international consultation and analysis

The modalities and guidance for the procedure to conduct an international consultation and analysis (ICA) of biennial update reports (BUR) of developing countries require some further decisions before implementation can start, in particular with regard to the composition, modalities and procedures of the team of technical experts that conduct this analysis. In May/June 2012 in Bonn G77 preferred to mandate the existing 'Consultative Group of experts on Non-Annex I National Communications' (CGE) with this task.

However, 80% of the CGE are experts from Non-Annex I countries and 20% of experts from Annex I countries. Annex I Parties want to have a 50% participation of Annex I experts in the analysis of BURs. Overall the CGE is composed of 24 members. With 24 members the group is also rather small to be able to conduct an analysis of all biennial reports of all developing countries. The EU and other Annex I Parties have proposed that Parties should nominate experts and that the UNFCCC Secretariat should then select teams of experts for the analysis of biennial reports with some specified expertise in the different areas covered by the biennial reports. No agreement could be achieved in Bonn and discussions will continue in Doha.

Prototype of NAMA registry

A prototype of the NAMA registry was implemented in 2012 and Parties could provide more detailed views on the implementation of this prototype. The key debate is between some developing countries that oppose standardized information and standardized input fields for the key parameters. They emphasize the voluntary character of the registry and want to have the lowest level of standardized information possible. However, Annex I Parties as well as some other developing countries propose more specific fields for information to make the registry a useful tool for developing countries looking for support and for donors.

Guidelines for domestic MRV of domestically supported NAMAs by developing Parties

The discussion on additional guidance for domestic MRV for NAMAs only started in 2012 and few meetings were dedicated to this item during SB sessions in Bonn. The EU considers such guidance on domestic MRV as useful whereas many developing countries opposed the need for this work.

2.4. Financial support

2.4.1. Agreement achieved in Durban

Green Climate Fund

At COP 16 in Cancun the Green Climate Fund (GCF) as an operating entity of the financial mechanism of the Convention under Article 11. The GCF will support projects, programmes, policies and other activities in developing country Parties. The Fund will be governed by the GCF Board. The assets of the GCF will be administered by a trustee and the World Bank was invited to serve as the interim trustee of the GCF, subject to a review three years after operationalisation of the fund. An independent secretariat will support the operations of the fund and the further design of the GCF was mandated to the Transitional Committee (TC).

At COP 17 in Durban Parties approved the governing instrument for the GCF. Arrangements between the COP and the Fund are to be concluded at COP 18 to ensure that it is accountable to and functions under the guidance of the COP. The COP will provide guidance to the Board related to policies, programme priorities or eligibility criteria. The Board was requested to operationalise the fund in an expedited manner. The UNFCCC Secretariat and the Global Environment Facility Secretariat were requested to set up an Interim Secretariat until the independent secretariat of the GCF is established.

Long-term finance

In Cancún the developed countries reiterated their commitment from Copenhagen to a goal of jointly mobilizing USD 100 billion per year by 2020 to address the needs of developing countries. In addition to this long-term objective fast-start finance was agreed at COP 15 in Copenhagen until 2012.

However, it remained unclear what financial support will be available after the fast-start finance period ends and no trajectory for the continuity of finance during the 2013-2020 period to achieve the long-term goal for 2020 has been agreed upon to date. COP 17 in Durban decided to undertake a work programme on long-term finance (LTF) in 2012, including workshops, in order to make progress on the issue. The aim of the LTF work programme is to contribute to ongoing efforts to scale up the mobilization of climate change finance after 2012. Thus, it analyses options for mobilizing resources from a wide variety of sources, such as public, private, bilateral, multilateral and alternative sources, and undertakes relevant analytical work on climate-related financing needs of developing countries for adaptation and mitigation. To fulfil its mandate, the work programme will draw on reports from the High-level Advisory Group on Climate Financing and the report on mobilizing climate finance prepared for the G-20, and also aims to take into account lessons learned from fast-start finance.

Standing Committee

The Cancun 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.

In Durban, Parties further defined the roles and functions, as well as the composition and working modalities, of the Standing Committee. These functions include:

- Organizing a forum for communication and continued exchange of information among bodies and entities dealing with climate change finance in order to promote linkages and coherence;
- Maintaining linkages with the Subsidiary Body for Implementation (SBI) and thematic bodies of the Convention;
- Providing the COP with draft guidance for the operating entities of the financial mechanism of the Convention, with a view to improving the consistency and practicality of such guidance, taking into account the annual reports of the operating entities as well as submissions from Parties;
- Making recommendations on how to improve the coherence, effectiveness and efficiency of the operating entities of the financial mechanism;
- Providing expert input, including through independent reviews and assessments, into the preparation and conduct of the periodic reviews of the financial mechanism by the COP;
- Preparing a biennial assessment, an overview of climate finance flows, to include information on the geographical and thematic balance of such flows, drawing on available sources of information, including national communications and biennial reports of both developed and developing country Parties, information provided in the registry, information provided by Parties on assessments of their needs, reports prepared by the operating entities of the financial mechanism, and information available from other entities providing climate change finance.

2.4.2. Negotiation process in 2012

In 2012 climate finance was discussed in several work streams under the COP (work programme on long-term finance; SBSTA work on measurement, reporting and verification (MRV) of finance, the Standing Committee work on several finance issues and under the Board of the Green Climate Fund (GCF).

Green Climate Fund

At the pre-COP prior to the conference in Doha it was decided that the GCF will be hosted by South Korea. Six expressions of interest had been received by the Interim Secretariat. Candidates for the location of the permanent secretariat had been Bonn (Germany), Mexico City (Mexico), Windhoek (Namibia), Warsaw (Poland) New Songdo City (Korea) and Geneva (Switzerland).

In 2012 further discussions took place on the arrangements between the COP and the GCF. Developing countries would like to see a strong role of the COP in supervising the work of the GCF, while developed countries see the GCF as a more independent institution. The interpretation and practical implications of the agreed language from Durban (stating that the GCF will be "accountable to" and work under the "guidance of the COP") is controversial.

Long-term finance

In 2012 the agreed work programme on long-term finance was implemented.

The first workshop on long-term finance was held from 9-11 July 2012 in Bonn, Germany. The purpose of the workshop was to provide an understanding of the general nature and overview of long-term climate finance, with a focus on solutions rather than problems. It also addressed lessons learned from fast-start finance that can be used post-2020. While many valuable insights were gained from inputs received and views exchanged, the first workshop also highlighted the considerable amount of work required in the coming months to address information gaps and to identify options for financing climate action.

From 1-3 October 2012 in Cape Town, South Africa, the second workshop on long-term finance convened and focused on approaches to scaling up climate finance and creating enabling environments. The workshop was organized under the work programme on long-term finance. The workshop considered new and innovative sources of climate finance, various approaches and strategies to mobilize climate finance from various sources, and ways to strengthen developing country capacity for improved access to climate finance. In terms of the second workshop's achievements, it was highlighted that an enhanced collective understanding of the mobilization of climate finance; increased institutional knowledge on climate finance issues; valuable knowledge sharing; and engagement of experts was achieved.

In addition, an e-forum (www.unfccc.int/ltf-eforum) was set up to provide a platform for engaging with stakeholders, exchanging views, and sharing technical and analytic information on a variety of topics. It includes subforums addressing the following: scaling mobilization of finance resources from multiple sources of finance (3-9 September); insight from approaches applied to the assessment of financing needs to implement mitigation and adaptation measures in developing countries (10-14 September); addressing the adaptation finance needs of developing countries (15-22 September); and enabling conditions needed to mobilize climate finance (23 September to 6 October).

The focus of the AWG-LCA negotiations in Bangkok in August 2012 was also on post-2012 climate finance; developing countries pushed for concrete numbers and reassurance about the level of climate finance after 2012, in particular in the 2013-15 period. Some Parties requested a mid-term finance target for the period up to 2015. However, specific finance commitments are very difficult for many Annex I Parties during the current finance crisis and it will be difficult to provide reassurance to developing countries that the long-term objectives will be met.

Standing Committee

The Standing Committee (SC) took up its work in the course of 2012. Two meetings took place in 2012, one in September in Bangkok and a second one the beginning of October in Cape Town South Africa. The SC will develop a work programme based on its activities for presentation to COP 18. The SC also discussed draft guidance and recommendations to the COP for the operating entities of the financial mechanism. Annex I Parties generally stress the independence of operating entities of the financial mechanisms in their decisions whereas developing countries want to influence these decisions more directly via the COP.

Fast-start financing

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**). Fast start finance supports immediate action by developing countries to strengthen their resilience to climate change and mitigate their greenhouse gas emissions, including those from deforestation.

The European Union has committed to provide €7.2 billion in fast start finance over the years 2010-2012. To date two-thirds of this amount, €4.59 billion, has been mobilised by the EU's 27 Member States and the European Commission at the end of August 2012. Despite the difficult economic situation and tight budgetary constraints, the EU mobilised €2.32 billion in fast start finance in 2011. Together with the €2.27 billion provided in 2010, this brings the EU fast start contribution to date to €4.59 billion, or 64% of the overall pledge for 2010-2012.

Table 6 below provides an overview on the fast-start contributions as reported in Parties' submissions to the UNFCCC secretariat by 24 August 2012. The total amounts reported are about US$ 27 billion for 2010-2011.

Table 6: Fast-start finance provided in 2010-2011

	2010-2011	Commitment 2010-2012
EU	€ 4.59 billion (US$ 5.9 billion)	€ 7.2 billion
USA	US$ 5.1 billion	
Australia	US$ 0.60 billion	
Canada	$ 1 billion committed, $ 0.8 billion disbursed	$1.2 billion
Japan	US$ 13.2 billion	US$ 15 billion, of which US$ 11 billion public
New Zealand	$ 0.53 billion (US$ 0.43 billion)	$ 0.89 billion
Switzerland	CHF 0.14 billion new and additional, total US$ 0.45 billion or CHF 0.4 billion	

Source: Parties' submissions to the UNFCCC Secretariat by 24 August 2012 (submissions from Iceland and Liechtenstein were not taken into account)

2.4.3. Position of Parties

The 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 as 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 introduce an emission trading scheme on shipping with financial resources from the trading system contributing to the GCF;
- The EP demanded in a resolution that the EU should promise to provide €30 billion ($42.4 billion) a year in climate financing from 2020 as part of its negotiating position for the meeting in Durban;
- 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.

Umbrella Group:

- Does not want to engage in discussions on long-term finance.

G-77:

- Urges Annex I Parties to commit to long-term finance in Doha, in particular to specific numbers;
- Urges the developed countries to capitalize the fund from their public resources;
- Requests new and additional funding (related to ODA);
- Requests public funding and some developing parties oppose to include private funding.

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 estimated 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 Durban

The Cancún agreement included an incentive scheme on forest emissions to 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 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.
A work programme under SBSTA was established to elaborate further technical details on the REDD+ mechanism. The AWG-LCA was requested to explore financing options for the full implementation of the results-based action and in Durban a work programme was adopted for 2012 to develop modalities and procedures for payments for result-based REDD activities.

2.5.3. Negotiation process in 2012

The discussions in 2012 on REDD+ focused on the future financing of a REDD+ mechanism. A draft decision text was developed in Bangkok which contains many options. The two broad options identified in Durban (market and non-market based approaches) have been further explained. New options regarding the institutional arrangements and the means of defining and rewarding REDD+ performance have been clarified. The draft text foresees to verify, issue, value and track REDD units, and to do so through existing institutions of the Convention, in a simple and transparent fashion. Debates remain around the nature of these units, whether they would only represent the mitigation of one ton of carbon or several benefits, e.g. for adaptation and mitigation or biodiversity. Some Parties consider paying for mitigation only would at the same time bring other positive co-benefits, other Parties argue that carbon incentives do not address the underlying drivers and co-benefits and would only enable short term mitigation, if any. The aspect of permanence cuts across technical and accounting aspects in the debate and will require further discussions in the context of adaptation, finance, various approaches and market based mechanisms.
Brazil generally opposes the creation of new offsetting mechanisms for REDD which Annex I Parties can account against their emission reduction targets. Australia, USA and Japan argue in favour of such offsetting. The EU argues for clear conditions and rules with regard to robust MRV systems, stable markets and standards for environmental integrity that need to be fulfilled for any market-based approaches.

The discussions in SBSTA at COP 18 focus on methodological guidance that can be grouped into different topics:

- Guidance related to modalities for national forest monitoring systems;
- Drivers of deforestation and degradation;
- Guidance on systems for providing information on how safeguards are addressed and respected;
- Guidance of the technical assessment of forest reference emission levels.

The guidance on national forest monitoring system is expected to be finalized in Doha with a decision. The other work streams only started in May/June 2012 or are more controversial (e.g. work on drivers for deforestation) and work will continue in Doha, but is unlikely lead to decisions at this point in time.

2.5.4. REDD+ partnership in 2012

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. 75 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 2012 included:

- the establishment of a voluntary REDD+ database to improve the information on how financing flows for REDD+ evolve;
- analysis of financing gaps and overlaps;
- discussion of effectiveness of multilateral REDD+ initiatives;
- sharing lessons on REDD+ initiatives and best practices & promote and facilitate co-operation among Partners;
- institutional arrangements.

The work program for 2011-12 is divided into the following five components:

- facilitating readiness activities;
- facilitating demonstration activities;
- facilitating results based actions;
- facilitating the scaling up of finance and actions;
- promoting transparency.

Three meetings and workshops of the REDD+ partnership were held in 2012. The first meeting focused on financing options for REDD+. A short second meeting was arranged for management issues of the partnership. The third meeting/workshop discussed drivers of deforestation and the role of industry.
By May 2012, donors had pledged US $5.1 million to the REDD+ Partnership, of which $4.41 million has been transferred or is in the process of being transferred to developing countries. Expenditures until March 2012 were US $2.6 million leaving an amount of about US$ 1.7 million for use beyond 2012.

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.
  - A 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.
  - Supported 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 for 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 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: opposes 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. Agreement achieved in Durban

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.

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.

In Durban a decision on the accounting of LULUCF activities in the second commitment period under the Kyoto Protocol was agreed. It included the following elements:

- Forest management became a mandatory activity in the second commitment period.
- The accounting approach for forest management will use reference emission levels. This 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. On harvested wood products (a new activity), text with fewer brackets could be achieved. According to the approved text, the accounting of harvested wood products will be mandatory.
- A new LULUCF activity of 'wetland drainage and restoration' was agreed.
- Specific accounting rules for natural disturbances were agreed.
- A proposal from New Zealand on flexible land use was agreed.
- The accounting will take into account the time lag of emissions from harvest in Harvested Wood Products.
- In the first commitment period, net emissions for deforestation and reforestation could increase the permitted cap of net removals from forest management. This provision will no longer exist in the second commitment period.

2.6.2. Negotiation process in 2012

With the decisions in Durban, the work stream of accounting of LULUCF activities under the Kyoto Protocol was generally completed. Some technical work remains before the agreed decisions in the accounting, reporting and review modalities under the Kyoto Protocol can be implemented.

2.7. Flexible mechanisms

New market-based mechanisms

Putting a price on carbon through the use of market mechanisms is imperative to drive low carbon investment and reduce global emissions cost-effectively. The EU proposes enhancing the global carbon market by establishing a new market-based mechanism addressing broad segments of the economy to promote greater emissions mitigation taking into account own contributions of developing countries to global mitigation efforts and as a prerequisite for agreeing to ambitious targets by developed countries. 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.

CDM / JI

The two project-based market mechanisms established by the Kyoto Protocol – the Clean Development Mechanism (CDM) and Joint Implementation (JI) – generate 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 15% of the global carbon market. The CDM and JI need to be further reformed to strengthen their environmental integrity and effectiveness; the continuation of the mechanisms between 1st January 2013 and the entry into force of the second commitment period requires a technical decision.

2.7.1. Agreement achieved in Durban

New market-based mechanisms

In Durban the Parties agreed to define the new market-based mechanism (NMM) and to elaborate so-called *modalities and procedures* for the implementation of the NMM (1/CP.17, paragraph 83-84) guided by the principles and criteria agreed at the session in Cancun (1/CP.16, paragraph 80):

- they should promote mitigation actions and enhance their cost-effectiveness;
- 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 broad segments of the economy;
- environmental integrity should be ensured;
- they should go beyond pure offsetting and contribute to 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 be supplemental to domestic mitigation efforts; and
- their governance and regulation should provide a robust carbon market.

In addition, the Parties agreed to conduct a work programme to consider a framework for various approaches (FVA), including opportunities for using markets. These approaches must meet standards that ensure their environmental integrity (1/CP.17, paragraph 79-80).

CDM/JI

In 2010, the EU had achieved the establishment of standardised methods and tools to calculate emission baselines and reductions with a view to further ensuring that CDM and JI projects genuinely lead to additional emission savings. This standardisation will improve the mechanisms' environmental integrity, streamline the project registration process and reduce transaction costs. Since then, 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 Durban, Parties requested that the EB intensifies the work on the top-down development of standardised approaches. In addition, they requested that the EB continues promoting equitable distribution of the CDM by enhancing its support for countries underrepresented in the CDM through the development of standardized methodologies applicable for those countries and by accelerating the operationalization of the loan scheme for the development of methodologies.

2.7.2. Negotiation process in 2012

New market-based mechanisms

Throughout 2012 parties have intensively discussed their views of how the NMM and the FVA should be designed. These discussions included – inter alia – the following issues:

- Development and implementation:
  While some Parties promote a FVA which provides general criteria for how parties could develop such mechanisms, others prefer to elaborate implementing decisions (modalities and procedure) for the NMM 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 intend to provide transparency on their level of ambition by unilaterally declaring what they are doing whereas others suggest approving 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 others and thus disallow the use of such units for compliance with mitigation commitments.

In the run-up to Doha, Parties finally agreed on a list of elements which would need to be addressed in a decision on modalities and procedures for both the FVA and the NMM. Each of the lists contains 11 or 13 elements, respectively, plus several sub-elements. However, a draft decision text has not been tabled yet. It will therefore be challenging but not impossible to elaborate a decisions text, at least if it focuses on the core modalities and procedures to be decided at COP 18 while further details can be mandated to SBSTA in 2013.

CDM / JI

In the run-up to the end of the first commitment period, many projects are currently submitted for registration under the CDM, because the EU has limited the eligibility of credits accepted under the EU ETS to those which register in the first commitment period or which are from LDCs. Project participants are thus keen to get their projects registered before this cut-off date.

In September 2012, the JI Supervisory Committee adopted recommendations to the COP which would align the governance of JI with the CDM. If these recommendations are adopted in Doha, responsibility for the environmental integrity of JI projects would shift from the host countries to the Supervisory Committee.

2.7.3. Position of Parties

New market-based mechanism and framework of various approaches

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 similar to the link with the Australian emissions trading system which should become effective in 2015 (see section 3.9.1). Currently, the EU ETS accounts for 80% of the demand on the international carbon market.

The new market-based mechanism could serve as a stepping stone to the introduction by developing countries of domestic cap-and-trade systems. More advanced developing countries should set ambitious crediting thresholds or trading caps for specific sectors as part of their low-carbon growth plans.

The thresholds and caps 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.

In the new agreement with legal force the NMM should facilitate the transition towards a global carbon market and thus provide clarity to investors and ensure the continuing stability of the international carbon market. The CDM should be phased out for those sectors of countries that participate in the sectoral mechanisms but existing CDM investments would be honoured.
A robust system of monitoring, reporting and review of the NMM must be put in place to ensure that only real emission reductions are recognised. Developing countries will require additional capacity building support for their participation in the carbon market, including monitoring and reporting. This is especially the case for the participation of more advanced developing countries in the NMM and of LDCs in the CDM.

The EU's proposal on the NMM is actively supported by Switzerland and a number of developing countries such as South Korea and some progressive Latin American countries such as Chile, Colombia, Mexico or Peru. Other developing countries such as Brazil, China or India are less supportive and highlight potential difficulties such as data availability but are willing to explore the concept further. Umbrella group countries such as USA, Japan, New Zealand, Australia and Norway prefer the FVA for different reasons but would be willing to agree to implementing decisions for the NMM as long as similar progress is made on the FVA.

CDM / JI

Generally, many countries acknowledge the progress that has been achieved in the governance of the CDM by decisions of the Executive Board in recent years. The negotiations on guidance of the Conference of the Parties serving as the meeting of the Parties (CMP) to the Executive Board may thus be less contentious than in the past.

In 2011, the EB mandated a high-level panel to conduct a policy dialogue on the future of the CDM. The panel's report was released in September 2012 and includes more than 50 recommendations for improving the CDM (CDM Policy Dialogue 2012). The recommendations are addressed to the CMP, the EB, the Secretariat, national governments and other stakeholders and range from enhancing CER demand by increasing the mitigation ambition over cooperation with the Green Climate Fund to revising the process for how EB members are selected and nominated. It remains to be seen which of the recommendations will be taken up by parties in Doha. However, they will certainly be taken into account in the review of the CDM's modalities and procedures, which will be conducted in 2013.

Another current discussion refers to the continuation of the exiting mechanisms before the entry into force of the second commitment period of the Kyoto Protocol. Some provisions of the mechanisms in the Kyoto Protocol refer to first commitment period, although the mechanisms as such may continue even without a 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, views diverge on which Parties should have access to the mechanisms. The EU and many developing countries want to limit access to countries which agreed to ratify the second commitment period, while Parties which will not participate in the KP's second commitment period request, for different reasons, unlimited access to the mechanisms for all Parties. Even though this issue seems to be very technical at first glance, it is ultimately highly political.

2.8. International aviation and maritime emissions

International civil aviation and maritime transport are two of the fastest-growing GHG emission sources. In recent years, emissions from international aviation and maritime transport have grown at a yearly average of 2.5% and 2.9 %, respectively. In 2005, they account together for some 5.3% of global CO_2 emissions (UNEP 2011). In absolute terms, international aviation emitted approx. 460 Mt CO_2 (2.1 %) and international maritime transport 800 Mt CO_2 (3.2 %); these quantities are comparable to total GHG emissions of Spain (368 Mt CO_2eq) and Germany (920 Mt CO_2eq) in 2009.

2.8.1. Agreement achieved in Durban

In Durban, Parties could not agree on how to address emissions from international aviation and maritime transport (so-called 'bunker fuels'). However, they agreed to continue discussion on this issue. The overall objective to limit global warming to below 2°C implies that emissions from international transport need to be tackled as well, due to the forecasted emission growth in these sectors up to 2050.

2.8.2. Negotiation process in 2012

These sectors are addressed under cooperative sectoral approaches in the mitigation track of the LCA. The main issues discussed between Parties are:

- the role of the UNFCCC in relation to IMO/ICAO;
- the treatment of developing countries; and
- 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 policies 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 hardly converged in the last 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 reduction 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 because differentiating according to nationality of ships or planes would provide strong incentives for flagging out ships or planes from developed to developing countries. As a result the smaller share of covered bunker fuel emissions would be reduced even further and the contribution of these sectors to global mitigation efforts may turn out to be negligible.

Absolute emission caps for such global sectoral approaches should be recommended by the UNFCCC in the EU's view. 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 (GHG fund, emissions trading schemes, levy, etc.) 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.

Almost all developing countries are worried about the impacts that any measures could have on trade and/or tourism and therefore their development. Most studies estimate that negative impacts will be negligible in the vast majority of cases but could be in the order of a few per cent for a small number of countries or products. 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 energy efficiency and
- market-based mechanisms.

At the 62nd session of IMO's Marine Environment Protection Committee (MEPC) in July 2011, Parties to MARPOL Annex VI (Protocol 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 the 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.

Market-based mechanisms have been on the agenda of several formal and inter-sessional MEPC meetings. Ten different proposals for market-based mechanisms had been analysed and discussed so far. However, Parties are still divided in their views as to whether the compelling need for establishing a market-based mechanism under the IMO had been clearly demonstrated or not. In the last meeting in early October 2012, the MEPC could not even agree on a methodology and criteria for a comprehensive impact assessment due to time constraints and postponed this discussion on market-based mechanisms to the next meeting in May 2013.

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.

Since 1st January 2012 all flights to and from the EU are included in the EU ETS, irrespectively of the flag or carrier. Strong opposition against this move emerged from both developed and developing countries.

At the 194th ICAO council meeting in 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.

However, the EU's initiative increased ICAO's understanding that the work on market-based mechanisms has to be intensified. In autumn 2011, an expert working group had been established to analyse options for market-based mechanism. Initially six options for market-based mechanisms had been discussed and analysed. In a number of working group meetings and telephone conferences these options were narrowed down to three remaining options in less than one year. It is unlikely that these options are further narrowed down at the next ICAO council meeting in November 2012. However, ICAO's Secretariat suggested considering a merger of options by starting initially with offsetting and transferring it to a fully-fledged emissions trading scheme at a later stage.

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 the 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 Durban

Already in Cancun, Parties decided to establish a **Technology Mechanism (TM)** which includes a **Technology Executive Committee (TEC)** and a **Climate Technology Centre and Network (CTCN)**. In Durban, Parties adopted the modalities and procedures for the TEC and further details of the approach for establishing the CTCN. The modalities and procedures specify six functions of the TEC:

- Analysis and synthesis: producing periodic technology outlooks and technical papers on issues arising from technology needs assessments and conducting a regular overview of existing technology development and transfer initiatives;
- Policy recommendations: recommending actions to promote technology development and transfer as well as guidance on policies related to technology development and transfer, with special consideration given to LDCs;
- Facilitation and catalysing: collaborating with relevant organizations and establishing an inventory of existing collaboration activities and a regular review process, with a view to identifying key achievements and gaps, good practices and lessons learned;
- Linkage with other institutional arrangements: achieve coherence and maintain interactions with other relevant institutional arrangements under and outside of the UNFCCC including the financial mechanism;
- Engagement of stakeholders: offering participation in the TEC meetings as observers or expert advisers and establishing consultative groups, stakeholder forums and technical task forces;

- Information and knowledge sharing: disseminate its outputs and facilitate knowledge sharing through a well-functioning information platform that responds to the information and knowledge service requirements of its potential users.

Parties also reiterated that the TM should support action on mitigation and adaptation and that technology needs must be determined nationally, taking into account national circumstances and priorities.

2.9.2. Negotiation process in 2012

In 2012, the TEC has held three meetings so far. One of the main issues discussed was the selection process for the host organization of the CTCN. A panel of three Annex I and three non-Annex I TEC members narrowed the initially nine applications down to three (UNEP, GEF and Det Norske Veritas). Based on this short list, SBI will select one organization for adoption by the COP in Doha.

The main issues discussed in the negotiations were whether the mandate of the TEC and the CTCN are specified clearly enough to allow for them to be distinguished between them and other technology transfer organizations. In addition, Parties discussed the progress made in the operationalization of the TM and the need for further work under the AWG-LCA, in particular with regard to linkages of the TM with the financial mechanism and with regard to intellectual property rights (IPR).

2.9.3. Position of Parties

Despite the consensus achieved in Durban, many developing countries, particularly Philippines, China, Nigeria, Uganda and Argentina, still want to enhance the functions of the TM by establishing a direct link to the Financial Mechanism and by explicitly mentioning that IPR needs to be addressed under the TM.

Developed countries, including Australia, USA and the EU, highlighted that there is obviously a need for further work with regard to technology development and transfer but that the new institutions under the TM as well as the SBs should conduct this work rather than the AWG-LCA.

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 mobilizing 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 Durban

In Durban Parties made progress on the implementation of the Cancún Adaptation Framework adopted in 2010 and agreed on the composition of the Adaptation Committee and its modalities and procedures. The **Adaptation Committee** includes 16 members, a slight majority of them coming from developing countries. To comply with its mandate, the Adaptation Committee should apply the following working methods:

- workshops and meetings;
- expert groups;
- compilation, review, synthesis, analysis reports of information, knowledge, experience and good practice;
- channels for sharing information, knowledge and expertise; and
- coordination and linkages with all relevant bodies, programmes, institutions and networks, within and outside the Convention.

Parties also decided that the Adaptation Committee should

- report annually to the COP on its activities, performance, guidance, recommendations, etc. and on further action required under the Convention,
- develop a three-year work plan including activities, milestones, deliverables and resource requirements, which should be approved by COP 18, and
- meet at least twice a year, if possible back-to-back with other adaptation-related events.

Generally, Adaptation Committee meetings can be attended by accredited observer organisation, except when decided differently by the Committee. Moreover, the COP requested that the Adaptation Committee develop linkages with all adaptation-related work programmes and institutions under the UNFCCC and engage with relevant organisations, centres and networks at intergovernmental, regional, national or sub-national level outside the UNFCCC with the view to drawing on their expertise.

2.10.2. Negotiation process in 2012

The first meeting of the Adaptation Committee was held in early September 2012 in Thailand, immediately after the Bangkok sessions of the AWGs. Its agenda focused on mandated deliverables, particularly development of the three-year work programme, establishing linkages inside and outside the convention and its report to the COP. In addition the Committee discussed visions and expectations of its work, information needs of the Committee, modalities of its work and arrangements for the next meeting.

The implementation of National Adaptation Plans for LDCs, another element of the Cancún Adaptation Framework, was discussed under the SBI. The SBI took note of the progress made in developing guidelines for establishing National Adaptation Plans due to be decided at COP 18 and of the regional training workshops planned for 2012-2013. Furthermore the SBI looked forward to the compilation and analysis of support needs identified by the least developed country expert group.

2.10.3. Position of Parties

Discussions under the AWG-LCA focused on the issue of whether and how to sign off this agenda item since the LCA is reaching the end of its mandate. G77/China is of the view that the mandate of the Bali Action Plan has not been completed and that negotiations need to be continued. The main point made here is that the financial support for adaptation activities of developing countries is considered to be insufficient and that it needs to be enhanced. In a submission they also highlighted the need for linkages of the Adaptation Committee with the Standing Committee and suggested conducting annual workshop for the promotion of enhanced adaptation action.

More progressive developing countries see, however, no need to continue this agenda item under the LCA. With the establishment of the Adaptation Committee they consider the Cancún Adaptation Framework fully implemented. The EU and Umbrella Group countries share and support that view and highlight that all remaining issues are mandated to the Adaptation Committee or the Subsidiary Bodies. Therefore, no decisions text would be required for this agenda item at COP 18.

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 Durban

After three years of negotiations, Parties finally agreed in Durban on another review of the framework for capacity building. In Cancún, many developing countries still requested the establishment of a separate capacity building institution for the international coordination of capacity building activities, a specific financial mechanism to cover the cost of capacity building and to define global quantitative performance indicators for monitoring the effectiveness of capacity building. However, Parties could not find consensus on any of these issues in Durban. As a compromise for an institutional arrangement for coordinating capacity building activities they instead agreed to request the SBI to organise an annual in-session **Durban Forum** for in-depth discussion on capacity building. This forum should aim at enhancing ideas through sharing experiences, best practices and lessons learned regarding the implementation of capacity building.

2.11.2. Negotiation process in 2012

The first meeting of the Durban Forum was held on 22nd and 23rd May 2012 in Bonn. The discussions mainly focused on two issues:

- Snowball effect: it was highlighted that capacity building should be conducted in a way that capacity building actions become self-reinforcing to enhance their coverage and effectiveness.
- Country-driven action: many speakers underlined that the right project needs to be built in the right place at the appropriate time and the action for local communities should be led by them.

Another session on monitoring and review of capacity building activities reiterated earlier discussions on the appropriateness of quantitative versus qualitative indicators for monitoring and reviewing capacity building projects.

Despite recognizing the richness of information provided during the first meeting of the Durban Forum, some Parties were of the view that the Durban Forum does not enable a thorough assessment of the results of capacity building activities and that identification of performance indicators for monitoring and analysing the outcome of capacity building still needs to be addressed under the LCA. Other parties however highlighted that these issues do not need to be reconsidered since the agreement to establish the Durban Forum fully covers the issues which were raised by Parties in previous years.

2.11.3. Position of Parties

G77, particularly China, Jamaica and Liberia, were requesting further work on capacity building under the LCA, above all on global performance indicators and on separate reporting of developed countries expenditure for capacity building activities. Moreover, they requested a two year lasting work programme.

The EU, together with several Umbrella Group countries (Australia, Canada, USA), rejected this request and highlighted that the Durban decision does not provide a mandate for further negotiations on these issues and that neither a negotiation text nor a decisions is needed on this topic. They also underscored the cross-cutting nature of capacity building and that capacity building needs to be integrated in mitigation and adaptation efforts.

3. COUNTRY POSITIONS

3.1. China

3.1.1. Facts

Cancun 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 per unit of GDP -17% from 2011 tp 2015;
- Non fossil fuel target: Increase the share of non-fossil 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 FYP 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 CO_2 (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 7: Emissions profile for China

	China	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	7.8	4.3
• Rank	1	3
• Of global total	21.2%	11.6%
• Per capita (t/capita)	5.8	8.1
• Per GDP (t/mil USD)	1.7	0.23
GHG emissions (2008)		
• Absolute (Gt)	9.9	5.1
• Rank	1	3
• Of global total	21.1%	10.9%
• Per capita (t/capita)	7.4	9.9
• Per GDP (t/mil USD)	2.2	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

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

Cancun agreement pledge: "India will endeavour to reduce the emissions[3] intensity of its GDP by 20-25% by 2020 in comparison to the 2005 level" (30 January 2010).

Table 8: Emissions profile for India

	India	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	1.6	4.3
• Rank	6	3
• Of global total	4.3%	11.6%
• Per capita (t)	1.3	8.1
• Per GDP (t/mil USD)	1.3	0.23
GHG emissions (2008)		
• Absolute (Gt)	2.4	5.1
• Rank	5	3
• Of global total	5.0%	10.9%
• Per capita (t/capita)	2.0	9.9
• Per GDP (t/mil USD)	1.0	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

- The 2nd national communication was submitted in May 2012.
- India earlier provided a climate plan, which provides eight national missions in key areas. It provides several measures but only a few of them are quantified in terms of resulting emission reductions. However, detailed targets on the electricity sector are contained in the 11th Five-year plan. Most measures in the climate plan are rather general, e.g. promoting public transport or a fuel switch in industry. The plan does not provide an overall baseline and mitigation scenario. (Climate Analytics et al. 2012)

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

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 be 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.

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

Cancun 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 9: Emissions profile for Brazil

	Brazil	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	0.9	4.3
• Rank	9	3
• Of global total	2.3%	11.6%
• Per capita (t)	2.1	8.1
• Per GDP (t/mil USD)	0.52	0.23
GHG emissions (2008)		
• Absolute (Gt)	1.4	5.1
• Rank	7	3
• Of global total	3.1%	10.9%
• Per capita (t/capita)	5.1	9.9
• Per GDP (t/mil USD)	0.87	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

Table 10: 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 trends 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 $GtCO_2$ 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 for 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 the IPCC Fourth 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 CO_2 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 Cancun 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 11: **Emissions profile for Mexico**

	Mexico	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	0.48	4.3
• Rank	12	3
• Of global total	1.3%	11.6%
• Per capita (t)	3.7	8.1
• Per GDP (t/mil USD)	0.44	0.23
GHG emissions (2008)		
• Absolute (Gt)	0.61	5.1
• Rank	12	3
• Of global total	1.3%	10.9%
• Per capita (t/capita)	5.2	9.9
• Per GDP (t/mil USD)	0.56	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

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 makes great efforts to thoroughly MRV its mitigation activities.

Mexico adopted a General Climate Change Law implementing economic instruments, planning framework and mandatory emissions reporting. However, more action is needed to meet the current emissions reduction targets for 2020 and Mexico needs to put more effort into implementing policies that secure long-term action. Current policies would reduce emissions by 21% below business as usual by 2030 - with the reductions coming from industry, land use and forest control and energy supply. (Climate Analytics et al. 2012)

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.

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.

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

- **Cancun Agreement pledge**: South Africa has committed itself to reducing emissions by 34% by 2020 and by 42% by 2025 compared to BAU, conditional on an international deal with an 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 12: **Emissions profile for South Africa**

	South Africa	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	0.37	4.3
• Rank	16	3
• Of global total	1.0%	11.6%
• Per capita (t)	7.4	8.1
• Per GDP (t/mil USD)	1.3	0.23
GHG emissions (2008)		
• Absolute (Gt)	0.58	5.1
• Rank	13	3
• Of global total	1.2%	10.9%
• Per capita (t/capita)	9.1	9.9
• Per GDP (t/mil USD)	2.1	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

- 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).
- South Africa has published the 2nd National Communication including suggestions for carbon taxing, emission trading and diversification of energy sources. In 2009 a renewable electricity feed-in tariff system has been established.

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 in relation to developing countries.
- Adaptation: This is a high priority for South Africa; an 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 a lack of ambition with regard to finance pledges.

3.6. USA

3.6.1. Facts

Cancun 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.[4]; **Base year: 2005**" (28 January 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). A larger uncertainty relates to the policies for the national implementation of the target. While the Administration maintains a strong commitment to the goal, the legal and political processes at the national level are confronting its attempts to embed policies (Climate Analytics 2011).

Table 13: Emissions profile for USA

	USA	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	5.5	4.3
• Rank	2	3
• Of global total	14.9%	11.6%
• Per capita (t)	17.8	8.1
• Per GDP (t/mil USD)	0.39	0.23
GHG emissions (2008)		
• Absolute (Gt)	6.6	5.1
• Rank	2	3

[4] 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.

	USA	EU 27
• Of global total	14.1%	10.9%
• Per capita (t/capita)	21.5	9.9
• Per GDP (t/mil USD)	0.46	0.23

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

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.

3.7. The Russian Federation

3.7.1. Facts

Cancun 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 14: Emissions profile for the Russian Federation

	Russian Federation	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	2.0	4.3
• Rank	4	3
• Of global total	5.3%	11.6%
• Per capita (t)	12.3	8.1
• Per GDP (t/mil USD)	1.2	0.23
GHG emissions (2008)		
• Absolute (Gt)	2.6	5.1
• Rank	4	3
• Of global total	5.5%	10.9%
• Per capita (t/capita)	16.8	9.9
• Per GDP (t/mil USD)	1.5	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

Without any LULUCF credits, the new -25% target leaves Russia's emissions still above the business-as-usual range and would also be rated as Inadequate. (Climate Analytics et al. 2012)

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 Cancun 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 first 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

Cancun 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 15: Emissions profile for Japan

	Japan	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	1.3	4.3
• Rank	7	3
• Of global total	3.4%	11.6%
• Per capita (t)	9.4	8.1
• Per GDP (t/mil USD)	0.26	0.23
GHG emissions (2008)		
• Absolute (Gt)	1.3	5.1
• Rank	8	3
• Of global total	2,8%	10.9%
• Per capita (t/capita)	10.4	9.9
• Per GDP (t/mil USD)	0.27	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

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 making progress 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 an international review of mitigation commitments. Japan clearly announced that it will not participate in a second 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 power or CCS.

3.9. Australia

3.9.1. Facts

Cancun 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 16: Emissions profile for Australia

	Australia	EU 27
CO_2 emissions (2008)		
• Absolute (Gt)	0.45	4.3
• Rank	13	3
• Of global total	1.2%	11.6%
• Per capita (t)	20.3	8.1
• Per GDP (t/mil USD)	0.42	0.23
GHG emissions (2008)		
• Absolute (Gt)	0.63	5.1
• Rank	11	3
• Of global total	1.3	10.9%
• Per capita (t/capita)	28.5	9.9
• Per GDP (t/mil USD)	0.59	0.28

Source: http://edgar.jrc.ec.europa.eu, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD

In 2011, Australia endorsed a national scheme to put a price on carbon which came into force in July 2012. Up to 2014, the bill introduces a fixed carbon price 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%. In summer 2012, Australia and the EU agreed to link their emissions trading systems. From 2015 onwards Australian emitters will have access to allowances from the EU ETS while bidirectional trading is envisaged to start in 2018. Details on the implementation of this agreement still need to be developed.

The scheme covers facilities with more than 27 kt of CO_2eq emissions, natural gas retailers and landfill operators and also includes carbon credits from farming and forestry. The Carbon Farming Initiative lets Australia's agricultural sector reduce emissions and create carbon credit units. Emission reductions may occur 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.

The new policies are not yet sufficient to meet its unconditional pledge through domestic action only. It is also unclear how Australia would meet its conditional pledges of 15% and 25% by 2020 through domestic action. (Climate Analytics et al. 2012)

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.

4. POSITIONS 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.
- G77 & China are requesting additional financial support for developing countries for mitigation action, adaptation to climate change impacts, capacity building and technology transfer.

4.2. Like minded developing countries

The group of the Like Minded Developing Countries (LMDC) on Climate Change is a relatively new group under the UNFCCC. They held their first meeting only on 18-19 October 2012 in Beijing, China. This recent meeting was attended by representatives from Bolivia, China, Ecuador, Egypt, India, Malaysia, Nicaragua, Pakistan, Philippines, Saudi Arabia, Thailand and Venezuela. The group is a platform which includes up to 20 other developing countries in varying configurations depending on the issues at stake. The group made joint statements and proposals already at the UNFCCC session in Bonn (May 2012) and Bangkok (August/September 2012). In 2011, the grouping occasionally had coordinated joint statements and positions against further action under the UNFCCC related to emissions from bunker fuels (international aviation and shipping).

At the meeting in Beijing they stressed that LMDC is part of and firmly anchored in the G77 & China Before the UNFCCC, a like-minded group already organised themselves as block voters in the UN Human Rights Council and the World Trade Organization using its influence to hold up progress in the fields of human rights. The formation under the UNFCCC also seems to be a reaction to the Cartagena group of countries as well as to the cooperation between the EU AOSIS and small and least developed countries in Durban.

A top priority for LMDC in Doha is the adoption of the second commitment period of the Kyoto Protocol starting on 1 January 2013 with 'sufficiently deep' emission reduction targets which means higher emission reductions than those currently proposed.

They oppose a reorganisation of the negotiation process (closing AWGs except ADP) until further emission reductions for Annex I Parties are agreed. The process under the Durban platform must be fully in accordance with the principle of common but differentiated responsibilities and within a framework of equity. Moreover, they aim at the following outcome under the AWG-LCA, particularly:

- Support for developing countries to adapt to climate change;
- Provision of adequate financing and transfer of technology to developing countries;
- Adequate mitigation efforts by developed countries in aggregate terms and comparable efforts for emission reduction among them;
- Results that recognise equity, trade, that dispense intellectual property rights for climate technologies and that encompass response measures.

4.3. 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.

In 2012 AOSIS became one of the key opponents to the EU in the discussions on the detailed elements for the second commitment period under the Kyoto Protocol.

For most of the outstanding issues, such as the length of the commitment period, the eligibility to use flexible mechanisms or the legal continuity, AOSIS holds very firm position against the EU's views. AOSIS is currently also not supportive of progress with regard to methodological and accounting modalities for the second commitment period that need to be revised for the implementation of the new amendment. AOSIS is currently chaired by Nauru which presents much stronger positions than other AOSIS countries such as Grenada.

4.4. 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.

4.5. ALBA countries

he 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 second 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; and
- 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.

4.6. Cartagena Dialogue

The Cartagena Dialogue for Progressive Action is a group of around 40 countries seeking ambitious outcomes from the UNFCCC negotiations. Participating countries include Antigua and Barbuda, Australia, Bangladesh, Belgium, Burundi, Chile, Colombia, Costa Rica, Denmark, Democratic Republic of Congo, Dominican Republic, Ethiopia, France, Gambia, Germany, Ghana, Guatemala, Indonesia, Kenya, Lebanon, Malawi, Maldives, Marshall Islands, Mexico, the Netherlands, New Zealand, Norway, Panama, Peru, Rwanda, Samoa, Spain, Switzerland, Sweden, South Africa, 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 2012, the meeting of the Cartagena Dialogue continued and the platform will hopefully again contribute to achieving improved understanding and compromises in Doha. A recent meeting of the Cartagena dialogue agreed that the following areas are important for the Doha package:

- A comprehensive work programme under ADP to achieve an new international legally binding agreement by 2015 for the period starting in 2020;
- The need for action to increase the ambition level prior to this agreement to close the gap to the 2°C objective;
- Decisions related to the provision of support after the end of the fast-start finance period;
- The agreement on amendments for the second commitment period under the Kyoto Protocol;
- Closing of AWG-KP and AWG-LCA.

There was no common understanding related to the specific elements for the second commitment period under the Kyoto Protocol as discussed in AWG-KP and explained above in section 1.4.2 where AOSIS has opposing views to the EU.

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.

Climate Action Network (CAN)
The Climate Action Network is a worldwide network of roughly 500 non-governmental societies 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 elements (Climate Action Network 2012):

- A second commitment period of the Kyoto Protocol applying immediately to a range of countries, including Australia and New Zealand with targets between 25 and 40% while minimising carried over AAUs and improving CDM and JI rules;
- Non-Kyoto developed countries must demonstrate their responsibilities by adopting stringent quantified emission reduction commitments, comparable in effort and transparency with Kyoto Parties;
- Developing countries should register their mitigation actions and required support, and all developing countries should make pledges;
- Developed countries should commit to provide at least $10-15bn in new public finance for the Green Climate Fund over the period 2013-2015;
- Funding modalities for National Adaptation Plans and a work programme to elaborate on the principles, functions, and institutional structure of an International mechanism to address loss and damage associated with climate impacts;
- Operationalising bodies already established, particularly the NAMA registry, the Adaptation Committee, the Technology Executive Committee and Climate Technology Centre and Network, the GCF and the Standing Committee as well as the initial capitalisation of the GCF and the Technology Mechanism.

Under the ADP, Parties should agree on a workplan to increase short term and long term ambition with clear timelines, milestones and deadlines for agreements required for the new globally binding instrument to be adopted in 2015:

- To enable developing countries to increase their mitigation actions and to adequately deal with adaptation, public finance from 2013-15 must be at least double the amount of the Fast Start Finance;
- The discussion should build on the Review incorporating IPCC drafts, and by an equity work programme beginning immediately;
- Agreed targets and actions should be consistent with a 1.5ºC global carbon budget supported by an equitable framework that provides the financial, technology and capacity building support to countries in need;
- Building on, further developing and improving the rules of the Kyoto Protocol and the Convention, including transparency through common and accurate accounting and effective compliance processes;
- Shepherded by a consistent Bureau responsible for producing a compilation text by COP19, complete negotiating text by COP20, and a draft fair, ambitious and legally binding protocol circulated by May 2015.

CAN highlights that "the agreements at Durban opened a window of opportunity for governments to put the world on a low emissions pathway, ready to leverage clean technologies for green development and create green jobs, investment and economic development, and to take important steps to build resilience to unavoidable impacts of climate change."

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

Current efforts under ICAO on addressing greenhouse gas emissions from international aviation are based on Resolution A37-19, which was adopted by the 37th Session of the ICAO Assembly in October 2010. In this 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 would have blocked any action such as the inclusion of aviation into the EU ETS. Since 1st January 2012 all flights to and from the EU are included into the EU ETS, irrespectively of the flag or carrier. However, strong opposition against this move emerged both in developed and developing countries. At the 194th ICAO council meeting in 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. However, the Council resolution does not have any legally binding consequences.

As a reaction, EU Commissioner Connie Hedegaard reiterated 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. BASIC states (Brazil, South Africa, India & China) argue that such unilateral measures would jeopardise the principles of the Convention and could thus threaten international efforts to combat climate change.

On the contrary, the EU's initiative increased ICAO's understanding that the work on market-based mechanisms has to be intensified. In autumn 2011, an expert working group had been established to analyse options for market-based mechanism. Initially six options for market-based mechanisms had been discussed and analysed. In a number of working group meetings and telephone conferences these options were in less than one year narrowed down to three remaining options:

1) Global mandatory offsetting: Emissions above a baseline have to be offset through the purchase of eligible allowances or credits; the baseline could be based on historic emissions (grandfathering) or by multiplying activity data with an emission rate (benchmarking).

2) Global mandatory offsetting with revenue generation: In addition to option 1) a fee per surrendered offsets would be raised; as an alternative, a fee could be raised by a central entity high enough to cover the costs for both the aggregated offsets and other mitigation purposes.

3) Global emission cap and trade system: This approach is similar to the EU ETS; based on a cap for aviation emissions allowances would be allocated to the sector; ways how to allocate allowances and how revenues should be used still have to be refined.

It is unlikely that these options are further narrowed down at the next ICAO council meeting in November 2012. However, ICAO's secretariat suggested considering a merger of options by starting initially with offsetting and transferring it to a fully-fledged emissions trading scheme at a later stage.

5.3. IMO

As the major result of the 62nd meeting of the IMO's Marine Environment Protection Committee (MEPC) in July 2011, 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 (Protocol for the prevention of air pollution from ships). Nearly fifty states voted in favour and 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.

Technical and operational measures

The amendments to the MARPOL Protocol Annex VI established 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.

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 their 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 not a Party to MARPOL Annex VI, 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.

Both measures have been welcomed by many stakeholders as the first mandatory GHG reduction measures for the shipping sector. Since they do not differentiate between flag states but treat all ships equally irrespective of their origin, they also illustrate that polies to address GHG emissions can be implemented at the global level.

Market-based mechanisms

Since 2008, MEPC discussed the options for establishing market-based mechanisms to address GHG emissions of international maritime transport. In addition, three inter-sessional meetings had been devoted to that issue. Furthermore, a smaller expert working group had been established to analyse the differences and impacts of the various proposals submitted by Parties. The analysis included criteria such as environmental effectiveness, cost-efficiency, impact on trade, incentives to technological change and innovation, practical feasibility and potential contribution to climate financing.

All together 10 different proposals had been identified including a GHG contribution fund, a port state levy, an efficiency trading approach, an emissions trading system and a rebate mechanism to deal with revenues of market-based mechanisms. The expert working group concluded that all proposals could be implemented in a practical and feasible manner despite the fact that all proposals will incur some additional administrative burden, though their administrative requirements vary. However, the expert working group could not identify a clear preference for one specific market-based mechanism but drafted terms of reference for a conducting a more comprehensive impact assessment.

This draft has been on the agenda of all MEPC meetings since the summer of 2011 but parties could not yet agree on adopting the draft and postponed this decision in the last meeting in early October 2012 again to the next meeting in May 2013 (MEPC 65). Despite focusing negotiation time on other issues, this delay is mainly due to the fact that Parties are still divided in their views as to whether the compelling need for establishing a market-based mechanism under the IMO had been clearly demonstrated or not.

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 afterwards. 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 18 (GEF 2012). The main points include:

- The GEF supported activities based on the Cancun agreement and the Durban decisions and provided policy guidelines for financing biennial update reports and resources for the preparation and/ or implementation of NAMAs and financing under the Sustainable Forest Management (SFM)/REDD+ Program.

- The GEF, through the LDCF, is preparing initial measures in support of the National Adaptation Plan (NAP) process in least developed countries, and is exploring additional support for the implementation of the least developed countries work programme.
- In response to the COP 17 decision on the Green Climate Fund (GCF), the GEF Secretariat and the UNFCCC Secretariat have jointly taken the necessary steps to establish the interim Secretariat of the GCF.
- For technology transfer, the GEF has supported projects and programs in both mitigation and adaptation based on the Poznan Strategic Program on Technology Transfer as well as its Long-Term elements. As for the operationalization and activities of the Climate Technology Centre and Network (CTCN), three regional technology centre and network projects were approved by the GEF Council in the reporting period. Another pilot project in Asia and the Pacific was approved by the GEF Council in May 2011. These four regional projects will enable integrated and innovative technology transfer support for mitigation and adaptation in Asia and the Pacific; Africa; Latin America and the Caribbean; and Europe and Central Asia.
- On climate change mitigation, to date the GEF has supported 569 projects with $3.6 billion in funding to 156 developing countries and economies in transition, attracting co-financing of $23.7 billion. Most of the projects were funded from the GEF Trust Fund. During the reporting period (the fiscal year 2012), the GEF allocated $546.6 million to 67 projects in the climate change mitigation focal area. This GEF investment leveraged an additional $3.9 billion in outside funding, resulting in a co-financing ratio of 1 (GEF) to 7.1 (co-financing). The 67 mitigation projects are expected to mitigate over 1000 Mt CO_2eq directly and indirectly over their lifetime, satisfying the GEF-5 cumulative greenhouse gas (GHG) mitigation target of 500 Mt CO_2eq.
- For adaptation, the GEF, through the LDCF and the SCCF Adaptation Program (SCCF-A), had mobilized $317.3 million and $162.2 million respectively for 76 and 41 projects as of June 30, 2012. Through the LDCF, the GEF has also financed the preparation of 48 National Adaptation Programmes of Action (NAPAs) with grants amounting to $11.4 million. During the reporting period, LDCF resources amounting to $142.0 million were approved for 27 projects, mobilizing $650.4 million in co-financing. This represents an increase of 81 per cent in grant approvals compared to the last reporting period. Through SCCF-A, the GEF provided $37.4 million for nine projects and two programs.
- The GEF has met all requests to support National communications and in the reporting period 28 Non-Annex I parties submitted national communications.
- The GEF 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 topic for the Intergovernmental Panel on Climate Change (IPCC) at the moment is the work on the Fifth IPCC Assessment Report.
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 – approval by 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 Author meetings have been held. The expert and government review of the Second Order Draft of the IPCC Fifth Assessment Report (AR5): The Physical Science Basis (WG1) recently started and will continue until 30 November 2012.

During the writing and the review of the IPCC reports authors and reviewers are not allowed to quote from the draft reports.
The IPCC is also currently conducting additional work on methodologies for LULUCF activities.

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.

- **Group of like-minded countries:** new group under the UNFCCC which held their first meeting only on 18-19 October 2012 in Beijing, China and currently comprises representatives from Bolivia, China, Ecuador, Egypt, India, Malaysia, Nicaragua, Pakistan, Philippines, Saudi Arabia, Thailand and Venezuela. The group is rather a platform which includes up to 20 other developing countries in varying configurations depending on the issues at stake.
- **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 Committee:** As part of the Cancun Adaptation Framework, Parties established the Adaptation Committee to promote the implementation of enhanced action on adaptation in a coherent manner under the Convention
- **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 (EB)**: A 10-member panel established at COP-7 which, under the authority of the COP, governs and supervises the CDM.
- **Compliance Committee:** A committee that helps facilitating, promoting and enforcing 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
- **Green Climate Fund (GCF):** The GCF, established at COP 16, will support projects, programmes, policies and other activities in developing country Parties. The Fund will be governed by the GCF Board.
- **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.
- **Technology Executive Committee (TEC):** The Technology Executive Committee is established under the Technology Mechanism to facilitate the effective implementation of the Technology Mechanism, under the guidance of the COP.

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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NOTES

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