

**ecbi** briefing paper

# GHG Emissions and the Kyoto Protocol

Gebru J. Endalew

December 2010

The contents of this paper are the authors' sole responsibility. They do not necessarily represent the views of the European Capacity Building Initiative (ecbi) or any of its Members

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the ecbi.

**Acknowledgments:**

This work has been made possible through funding support to the ecbi from the UK Department of International Development (DFID)

**About the authors:**

**Gebru Jember** is a Climate Change specialist and programme officer at Climate Change Forum-Ethiopia, based in Addis Ababa, Ethiopia  
E-mail address: [gebru\\_j@yahoo.com](mailto:gebru_j@yahoo.com)



## Table of contents

1. Executive Summary.....	2
2. Background.....	3
2.1 Kyoto Protocol.....	3
2.2 Mechanisms under KP (EMISSIONS TRADING, CDM, JI).....	4
3. Analysis .....	6
3.1 Current status of GHG.....	6
3.2 The first commitment period.....	7
3.3 First annual review under the Kyoto Protocol.....	8
3.4 Pledges for the second commitment period: The Copenhagen Accord.....	9
3.5 Status of the negotiation after COP 15.....	9
4. Conclusions and recommendations .....	15
Appendix I: Quantified economy-wide emissions targets for 2020.....	19

## I. Executive Summary

This briefing paper examines the status of greenhouse gases in the atmosphere, what Kyoto protocol mean for vulnerable countries like Africa, the different mechanisms within the protocol and their regional distribution, the pledges so far for the second commitment period and also looks the status of negotiations after Copenhagen.

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) was adopted at the third session of the Conference of the Parties (COP 3) in Kyoto, Japan, on 11 December 1997 and entered in to force on the 16<sup>th</sup> of February 2005. The first session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP 1) established the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) on the basis of Protocol Article 3.9, which mandates consideration of Annex I parties' further commitments at least seven years before the end of the first commitment period.

The share of Annex I Parties to the total emission is 63.7%. Parties in Annex I which shares at least 55% of total Carbon dioxide emissions for 1990 have ratified the protocol<sup>2</sup>. These Annex I parties agreed to reduce their overall emissions of six greenhouse gases by an average of 5.2% below 1990 levels from 2008-2012 for the first commitment period. To supplement meeting of targets for Annex I parties, three market based mechanisms have been introduced. The Kyoto mechanisms taken by a Party to achieve its target include: Emission Trading, The Clean Development Mechanism (CDM) and Joint Implementation (JI). The carbon market is growing and reaches \$30 billion in 2006. There are now nearly 2382 registered projects worldwide. 77.46% of them are in Asia and the Pacific regions followed by 20.07% in Latin America and the Caribbean regions. The share of Africa is 1.93% where South Africa takes the lion share out of it<sup>3</sup>. To improve participation of African countries in the CDM projects different mechanisms like regional distribution and different incentive mechanisms need to be agreed.

From 1990 to 2007, the total aggregate GHG emissions excluding emissions/removals from LULUCF for all Annex I Parties decreased by 3.9 per cent, from 18,848.0 to 18,112.1 Tg CO<sub>2</sub> equivalents. Including LULUCF decreased by 5.2 per cent from 17,459.6 to 16,547.1 Tg CO<sub>2</sub> equivalents<sup>4</sup>.

The pledges of Annex I Parties need to be based on Science. However, the pledges so far are inadequate to overcome the challenges of climate change. For the second commitment period the pledges from Annex I Parties reach 17-25% from 1990 levels by 2020. Besides, these pledges are also accompanied by loopholes. The main categories of loop holes include: LULUCF accounting rules, Market-based mechanisms, Surplus AAUs and International aviation and shipping<sup>12</sup>. These pledges together with the loop holes will allow Annex I parties to emit more to the atmosphere. Annex I Parties need to lead in emission reductions and actions of developing countries need to be supported by finance, technology and capacity building. Otherwise, the impact of climate change will affect most of the developing countries especially least developed once more and also hinder their development.

In order to deliver what the atmosphere is requesting and ensure the reliability and trustworthiness of Annex I Parties emission reduction, their pledges must raise using top down approach, and the loopholes must be closed.

Most parties are stressing that unless we reach an agreement on mitigation commitments or actions for developed and developing countries as well as the associated measuring, reporting and verification (MRV) of support to developing countries, no agreement will be reached on the other pillars. Hence, if part by part agreement is to come from Cancun onwards, mitigation needs to lead in order to have a balanced package. The other issue for most of the developing countries is the continuity of the Kyoto protocol. Most developed Parties, however, have been raising the issue of comparability with non-Kyoto party, US. Till the issue of comparability is addressed by the two AWGs, a two way approach is an option. The US pledges can be handled in a COP decision, while the pledges of the other Kyoto Protocol developed country parties via a Kyoto Protocol second commitment period.

After COP 15, four Climate Change Talks were held, two in Bonn, Germany from 31 May to 11 June<sup>8</sup> and 2-6 August<sup>9</sup> 2010, in Tianjin, China from 4-9 October<sup>11</sup> 2010 and the last one in Cancun, Mexico from 29 November- 11 December 2010. The AWG-KP focus was on: Annex I emission reductions; Other issues including the flexibility mechanisms and Land-use, land-use change and forestry (LULUCF); and Legal issues on ways to avoid the gap between the implementation of the first and second commitment periods as well as Potential consequences of response measures. The Chair's draft proposal from Tianjin session (FCCC/KP/AWG/2010/CRP.4) was discussed in Cancun and parties focused on narrowing down the options and to make progress on a number of issues.

A draft proposal (FCCC/KP/AWG/2010/CRP.4/Rev.4) and a draft decision on the result of the group (FCCC/KP/AWG/2010/L.8 and Add. 1-2) which could be used as a basis for the coming negotiations were forwarded.

The progress made in having a single base year and narrowing down options for the chairs text is encouraging. However, in order to deliver what the atmosphere is requesting and ensure the reliability and trustworthiness of Annex I Parties emission reduction, their pledges must raise using top down approach, and the loopholes need to be closed. Besides, the inclusion of CCS under the CDM<sup>14</sup> needs series consideration of the issues identified in decision 2/CMP.5, paragraph 29<sup>15</sup> addressed and resolved in a satisfactory manner.

## 2. Background

### 2.1 Kyoto Protocol

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) was adopted at the third session of the Conference of the Parties (COP 3) in Kyoto, Japan, on 11 December 1997 and entered in to force on the 16<sup>th</sup> of February 2005.

The rules and modalities for implementation of the protocol called the Marrakesh Accords was prepared during COP7 in 2001 in Marrakesh, Morocco and endorsed at Montreal (COP/MOP 1) Canada, in December 2005 with the objective to stabilize atmospheric concentrations of GHGs and hence enhance many of the commitments within the convention<sup>1</sup>.

The first session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP 1) established the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) on the basis of Protocol Article 3.9, which mandates consideration of Annex I parties' further commitments at least seven years before the end of the first commitment period.

Parties to both the convention and the protocol are currently 192. The share of Annex I Parties to the total emission is 63.7%. Parties in Annex I which shares at least 55% of total Carbon dioxide emissions for 1990 have ratified the protocol<sup>2</sup>. These Annex I parties agreed to reduce their overall emissions of six greenhouse gases by an average of 5.2% below 1990 levels from 2008-2012 for the first commitment period.

## 2.2 Mechanisms under KP

Reduction/limitation of greenhouse gases by countries which have the commitment under the Kyoto Protocol is primarily through national measures. To supplement meeting of targets for Annex I parties, three market based mechanisms have been introduced. The use of domestic actions and Kyoto mechanisms are reported in the national communications and assessed by the facilitative branch of the Compliance Committee. The Kyoto mechanisms taken by a Party to achieve its target include: Emission Trading, The Clean Development Mechanism (CDM) and Joint Implementation (JI). The carbon market is growing and reaches \$30 billion in 2006<sup>3</sup>.

To participate in these mechanisms, Annex I parties require to meet specific methodological and reporting requirements in order to ensure its accuracy for its emissions and assigned amounts and hence to impact the use of these mechanisms on the Party's compliance.

### 2.2.1. Emissions Trading

This mechanism is the redistribution of the assigned amount of the Kyoto units among Annex I Parties. The number of units that an Annex I party transfers is limited by the Party's commitment period reserve (CPR).

### 2.2.2. Joint Implementation

Joint implementation (JI) and Clean Development Mechanism (CDM) are the two project-based mechanisms which feed the carbon market. Joint implementation (JI) is

when one Annex I Party invests in a project that reduces emissions or enhances sequestration in another Annex I Party, and receives credit for the emission reductions or removals achieved through that project. The unit associated with JI is called an emission reduction unit (ERU). ERUs are converted from existing AAUs and RMUs before being transferred. JI does not affect the total assigned amount of Annex I Parties collectively; rather it redistributes the assigned amount among them.

### 2.2.3. The Clean Development Mechanism

The CDM is when one Annex I Party invests in sustainable development projects that reduce emissions in developing countries. CDM credits may be generated from emission reduction projects or from afforestation and reforestation projects. CDM projects, unlike the schemes emission trading and JI, creates new Kyoto units and their possession by Annex I Parties increases both the total assigned amount available for those Annex I Parties collectively and their allowable level of emissions. Hence, such projects need to meet in depth requirements and follow exact procedures and steps for the validation and registration of projects and the verification and certification of emission reductions and removals.

The CDM is supervised by the CDM Executive Board under the authority and guidance of the CMP and is responsible for registering projects, approving methodologies for determining project baselines and monitoring emission reductions, and for issuing certified emission reductions (CERs) as well as accreditation of designated operational entities (DOEs).

There are now nearly 2382 registered projects worldwide. 77.46% of them are in Asia and the Pacific regions followed by 20.07% in Latin America and the Caribbean regions. The share of Africa is 1.93% where South Africa takes the lion share out of it<sup>3</sup> (Figure 1).

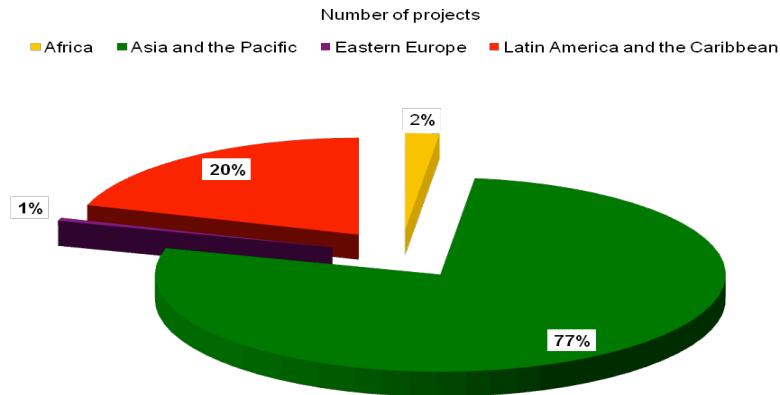


Figure 1: Registered CDM projects by region

### 3. Analysis

#### 3.1 Current status of GHG

From 1990 to 2007, the total aggregate GHG emissions excluding emissions/removals from LULUCF for all Annex I Parties decreased by 3.9 per cent, from 18,848.0 to 18,112.1 Tg CO<sub>2</sub> equivalents. Including LULUCF decreased by 5.2 per cent from 17,459.6 to 16,547.1 Tg CO<sub>2</sub> equivalents. However, comparison between 2000 and 2007 shows an increase of 3.1 per cent (excluding LULUCF) and 0.9 per cent (including LULUCF). From 2006 to 2007, emissions increased by 0.9 per cent (excluding LULUCF) and by 1.4 per cent (including LULUCF)<sup>4</sup> (Figure 2 and 3).

The emission of CO<sub>2</sub> accounts for nearly 80% of the total emission and the emission of all GHGs is increasing from year to year. For all Annex I Parties taken together, emissions from all sectors decreased between 1990 and 2007 and net GHG removals by LULUCF increased by 12.7 per cent. Between 2006 and 2007, emissions from all sectors increased. And net GHG removals by LULUCF decreased by 4.3 per cent<sup>4</sup>.

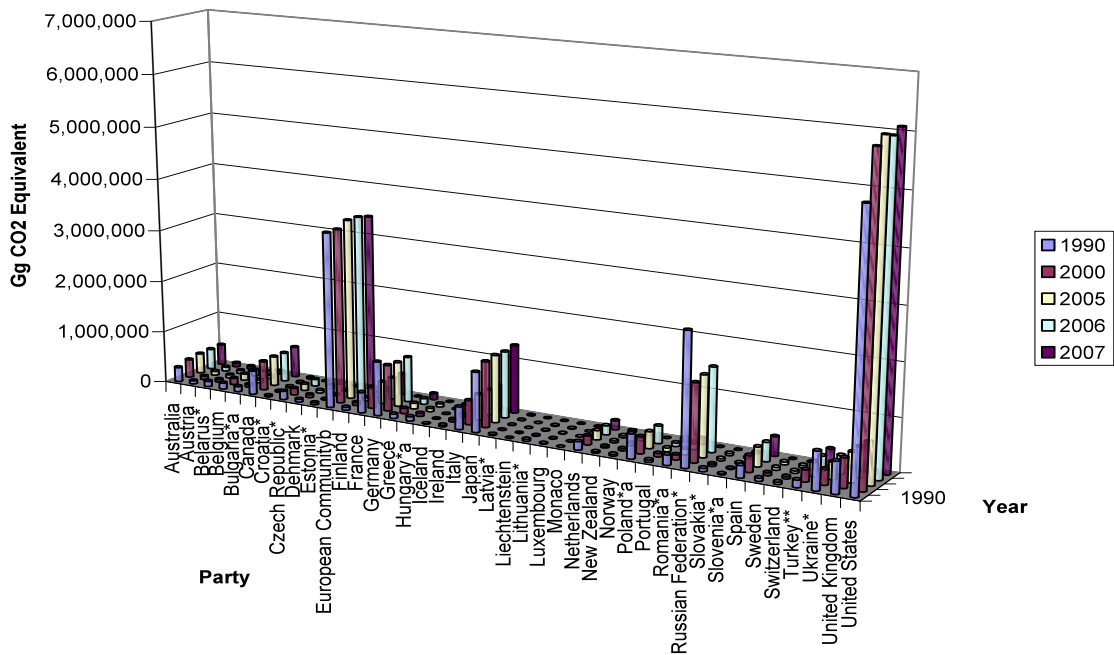


Figure 2: Total anthropogenic carbon dioxide emissions excluding emissions/removals from land use, land-use change and forestry, 1990, 2000 and 2005-2007

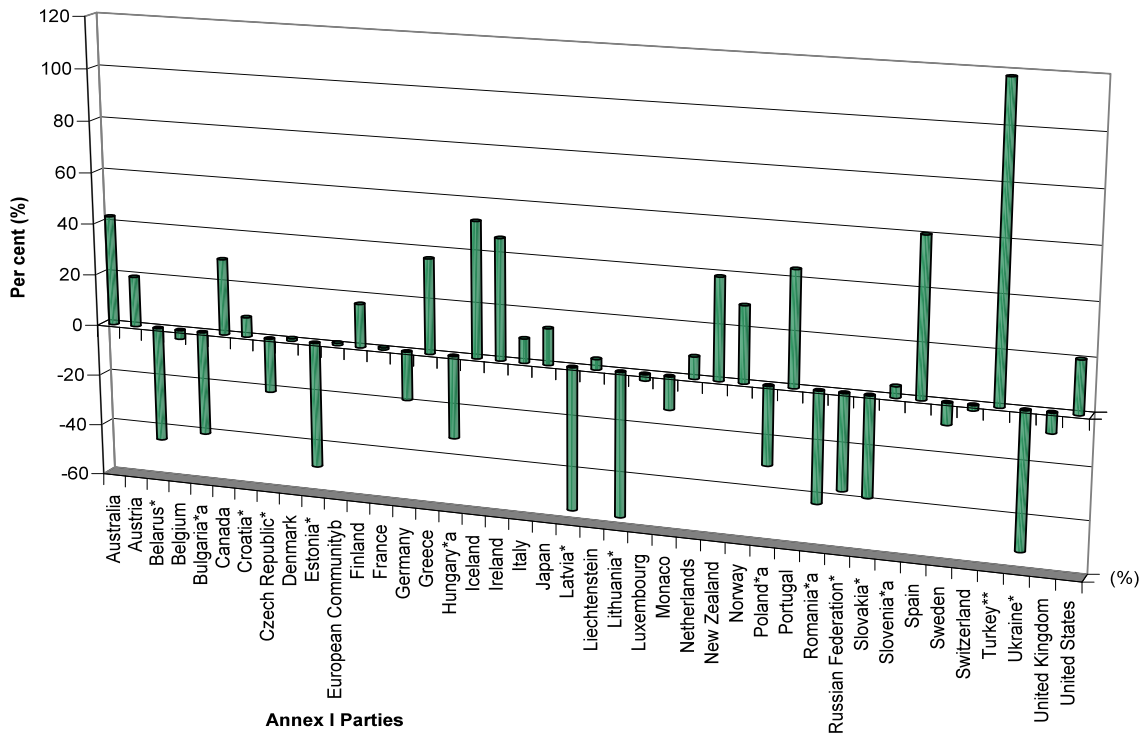


Figure 3: Changes in total aggregate emissions (excluding LULUCF) of individual Annex I Parties, 1990-2007

### 3.2 The first commitment period

Each Annex I Party is required to ensure that its total emissions from GHG sources listed in Annex A to the Kyoto Protocol over the commitment period do not exceed its allowable level of emissions. GHG emissions listed in Annex A include the energy, industrial processes, solvent and other product use, agriculture and waste sectors. The allowable level of emissions is called the Party's assigned amount.

Emission targets for each Annex I Party have been set relative to its emissions of GHGs in its base year inscribed in Annex B to the Kyoto Protocol (Figure 4). The Party's initial assigned amount for the Kyoto Protocol's five-year first commitment period (2008 – 2012) is determined by the Annex B emissions target and the Party's emissions of GHGs in the base year. The quantity of the initial assigned amount is denominated in individual units, called assigned amount units (AAUs), each of which represents an allowance to emit one metric tonne of carbon dioxide equivalent (t CO<sub>2</sub> eq).

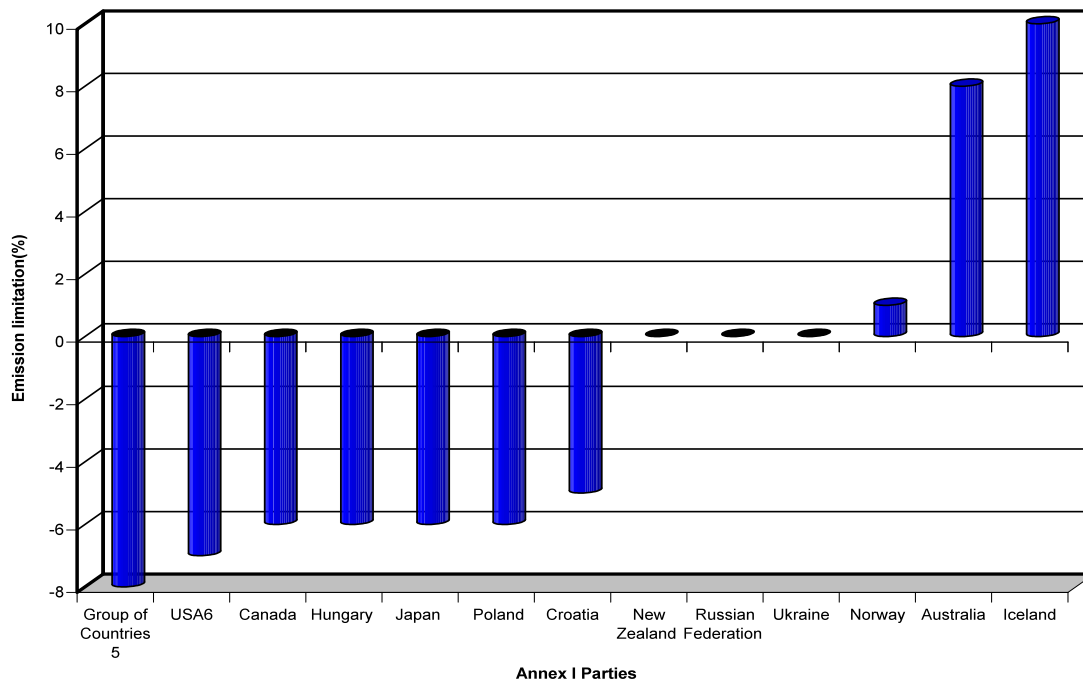


Figure 4: Quantified emission limitation or reduction targets as contained in Annex B to the Kyoto Protocol

Though participation in the Kyoto mechanisms and LULUCF activities Parties may generate, cancel, acquire or transfer emission allowances (collectively called Kyoto units), which will raise or lower their assigned amount over the commitment period. Since the emissions and removals from LULUCF sector are not included in Annex A of the Kyoto Protocol, Annex I Parties need to take measures in this sector and report separately.

### 3.3 First annual review under the Kyoto Protocol

This year is the first time for Annex I Parties which are also Parties to the Kyoto Protocol report all supplementary information in addition to the greenhouse gas inventory. The supplementary information includes KP-LULUCF and Kyoto Protocol units, changes in the national system, changes in the national registry and minimization of adverse impacts.

The reporting on supplementary information will give Parties an indication of how these activities can help them in achieving their commitments as well provide input to the ongoing negotiations on the future regime.

### 3.4 Pledges for the second commitment period: The Copenhagen accord

According to the agreement made in Copenhagen the deep cuts in global emissions are to be based on science (IPCC FAR) with a view to reduce global emissions which will result in holding the increase in global temperature below 2°C<sup>7</sup>(FCCC/CP/2009/11/Add.1). To achieve this goal the range of emission reductions by Annex I Parties of between 25 and 40 per cent below 1990 levels by 2020 has been mentioned in the Fourth Assessment Report of IPCC and also confirmed in the recent peer-reviewed scientific literatures. Some parties also expressed their concern that the global mean surface temperature increase needs to be limited to 1.5 °C compared with pre-industrial levels, and that the aggregate level of ambition of Annex I Parties should be increased accordingly above the 25–40 per cent level.

The current pledges by Annex I Parties that are also Parties to the Kyoto Protocol were expected to result in emission reductions of between 17 and 25 per cent below 1990 levels by 2020 (appendix I). However, if pledges by all Annex I Parties were considered, the level of emission reductions could be even lower, between 13 and 18 per cent. This was not consistent with the range of 25–40 per cent and the 2 °C goal. It is agreeable that the scale of emission reductions in accordance with pledges are not sufficient, moving to the upper range of pledges by a number of Annex I Parties could only be achieved in the context of a global effort, including from countries that are major emitters. The two legal instruments, the Convention and the Kyoto Protocol, however, provided the foundation for relevant discussions on mitigation actions by respective groups of countries<sup>8,9</sup>.

### 3.5 Status of the negotiation after COP 15

The Bonn II and III Climate Change Talks were held from 31 May to 11 June<sup>8</sup> and 2-6 August<sup>9</sup> 2010, respectively in Bonn, Germany, Tianjin, China from 4-9 October<sup>11</sup> 2010 and Cancun, Mexico from 29 November to 11 December 2010. The AWG-KP focus was on:

- Annex I emission reductions;
- Other issues including:
  - The flexibility mechanisms and
  - Land-use, land-use change and forestry (LULUCF); and
- Legal issues on ways to avoid the gap between the implementation of the first and second commitment periods.
- Potential consequences of response measures.

The Chair's draft proposal from Tianjin session (FCCC/KP/AWG/2010/CRP.4) was discussed and parties focused on narrowing down the options and to make progress on a number of issues. A revised Chair's proposal (FCCC/KP/AWG/2010/CRP.4/Rev.4) was forwarded for further negotiations in the coming sessions. Besides, some of the elements are incorporated in the Cancun Agreement (FCCC/KP/AWG/2010/L.8/Add.1-2).

The progress made in having a single base year and narrowing down options for the chairs text is encouraging. However, in order to deliver what the atmosphere is requesting and ensure the reliability and trustworthiness of Annex I Parties emission reduction, their pledges must raise using top down approach, and the loopholes need to be closed. Besides, the inclusion of CCS under the CDM<sup>14</sup> needs series consideration of the issues identified in decision 2/CMP.5, paragraph 29<sup>15</sup> addressed and resolved in a satisfactory manner.

### Annex I emission reductions:

Among the concerns expressed by developing and least developed parties include: slow progress and some parties' lack of commitment to the Kyoto Protocol's future and urged Annex I parties to raise the level of ambition in their current mitigation pledges as well as reach agreement on a second commitment period as soon as possible to avoid critical increases in global temperatures.

The reactions from most of the Annex I countries include: the need to make progress on technical issues in order to guarantee the environmental integrity of the outcome in Cancun and as it is a common concern, there is a need to have synergies between the two AWGs; improve understanding and increase the transparency of all mitigation commitments in the Copenhagen Accord and urged working in line with the AWG-LCA; consider carryover of Assigned Amount Units (AAUs) as well as a fair and effective international framework in which all major emitters participate.

Some parties stressed during the Bonn III workshop that the use of LULUCF and the flexibility mechanisms should aim to increase the level of ambition of the current pledges and not just to achieve the current pledges. A paper presented by AOSIS (Figure 5) shows the 17-25% pledged by Annex I parties would result in effective emission reductions of only 1-7% when all the technical rules are considered<sup>10</sup>.

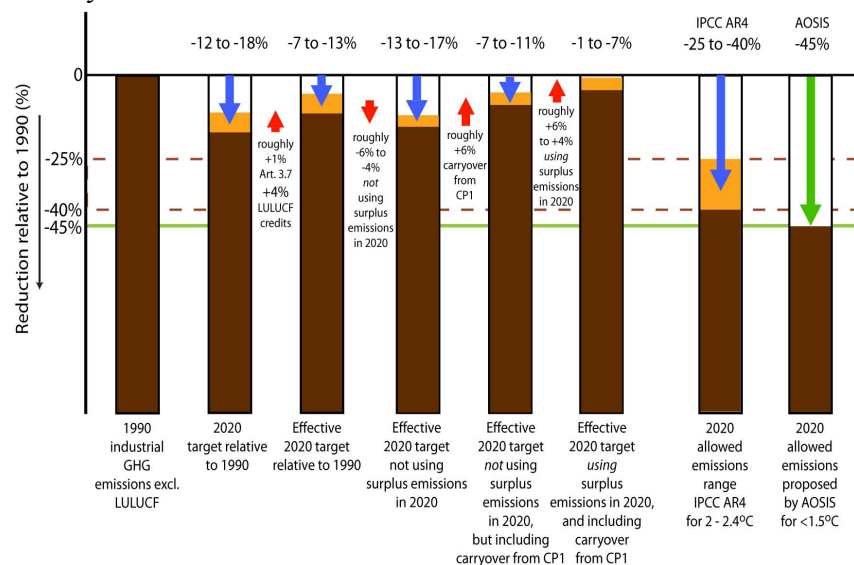


Figure 5: Aggregate Annex I reductions including surplus AAUs and LULUCF accounting (Source: AOSIS presentation during Bonn III Session)

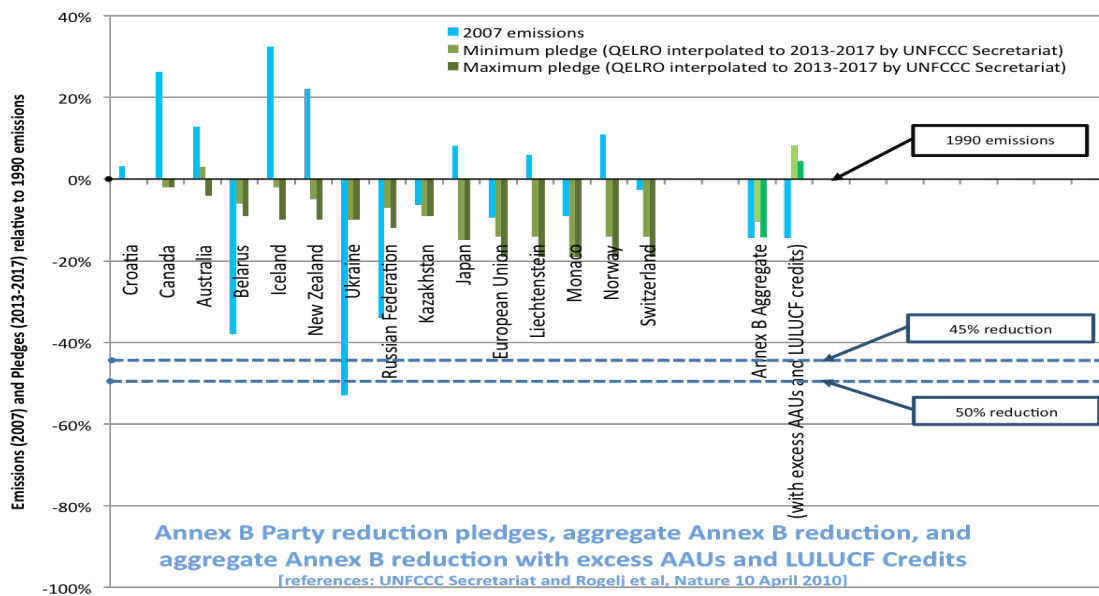


Figure 6: Pledges of Annex I parties (Source: Presentation from Bolivia delegates during Bonn II session)

A paper presented by Bolivia (Figure 6) during Bonn II meeting also highlights that Annex I Parties will only take the high end of their targets if they get the surplus AAUs and LULUCF emissions loopholes that they want; even if the aggregate emission trend is decreasing compared to the base year, there are parties which still have increasing trend and the approach to forest management accounting favoured by Annex I Parties would allow developed countries to increase their annual emissions without accounting for it. After the workshop, negotiations continued through moving part by part of the issues in the negotiation text.

On the aggregate level of ambition: G-77/China emphasized a top-down approach, however, Australia said parties had agreed to an iterative approach, rather than top-down or bottom-up. AOSIS said the 17-25% pledged by Annex I parties would result in effective emission reductions of only 1-7% when all the technical rules are considered. Japan emphasized that their pledges only exist in the context of a comprehensive agreement including all major emitters.

In the 14<sup>th</sup> session at Tianjin, the Russian Federation highlighted that their Copenhagen Accord pledge is not a second commitment period pledge. However, China mentioned the bottom-up approach is inadequate for setting Annex I emission reduction targets.

On impact of technical rules on aggregate ambition the primary topics of discussions include: the implications of these ranges and options on aggregate emission reductions, and on how to deal with them.

Options highlighted by Parties to address the impact of the carryover of surplus AAUs include: not allowing carryover; capping carryover; restricting carryover use (allowing

carryover of x% of AAUs); adopting stricter emission reduction targets to absorb the surplus; putting AAUs in a strategic reserve; taxing transfer or acquisition of carryover AAUs; agreeing not to purchase surplus AAUs; and restricting use of acquired AAUs.

In the 14<sup>th</sup> session, a table of options on carryover of surplus AAUs was presented by the secretariat and parties give their reflections. The Russian Federation has been highlighting that any proposal to eliminate or limit carryover is inconsistent with the Kyoto Protocol.

On LULUCF the discussion was on: using existing rules; limiting use of, or removing, LULUCF credits from the system; removing the surplus AAUs where they include LULUCF credits; or not using the LULUCF provisions of Protocol Article 3.7 (translating QELROs into AAUs).

On certified emission reductions (CERs) the discussion was on using current rules and introducing new mechanisms, strengthening additionality of CERs, or imposing a cap on mechanisms and supplementarity, to address the impacts of rules on flexibility mechanisms.

Following these discussions, the Co-Chair noted the need for a detailed outline of options on surplus AAUs; options for LULUCF would benefit from joint discussions with the LULUCF contact group; and additional discussions on mechanisms would be useful.

On the length and number of commitment periods and base year G-77/China, AOSIS and the African Group, support for having a single five-year commitment period with a base year of 1990. However, most Annex I parties including EU, Japan and Australia support a single eight-year commitment period with flexibility on reference years. Finally, AOSIS said they will consider eight year if Annex I parties increase their pledges.

On transforming pledges into QELROs, G-77/China proposed a mixed approach however; many developed countries said QELROs are subject to negotiation rather than to a decision on methods to calculate them. Japan and the Russian Federation emphasized that QELROs should be seen in the broader context of a comprehensive agreement.

In the 15<sup>th</sup> session, there were more consensuses on having a single base year with the option of allowing parties to use different reference year for domestic purposes. However, on the length of commitment period parties still continue discussion weather to have eight or five year commitment period and will be further considered during the coming sessions. Besides, on carryover of surplus AAUs, the options weather to leave provisions unchanged, eliminating or capping were discussed and will also be considered during the coming sessions. Individual commitments also remain unchanged during this session.

### **Land use, land-use change and forestry (LULUCF):**

The key issues discussed during Bonn II session included construction and transparency of reference levels and interannual variability. Among issues raised by parties include:

broadening the scope of eligible LULUCF activities under the CDM; conclusions should focus on improving the Protocol's environmental integrity and not creating more loopholes and the need for transparency in accounting and consideration of potential linkages between LULUCF rules and REDD+.

Brazil, for the G-77/China, outlined the G-77/China's proposal on constructing reference levels. Among the points mentioned in the proposal include: parties would inscribe their reference levels in an annex and would then be required to submit a description of the elements used in their construction, followed by a period for revision; proposed a review of reference levels starting in 2012 and of annual inventories, highlighting the need to ensure that accounting occurs with the same elements used in establishing reference levels; called on parties to begin discussing elements of potential review guidelines and also noting problems of accurate, transparent and verifiable accounting of forest management activities. However, Tuvalu underscored that there are other accounting options.

The G-77/China also proposed a cap on forest management that is fixed for all parties, noting lack of agreement on a specific percentage. Parties then have raised issues like: whether caps are necessary, given the transparent accounting in the G-77/China's proposal; caps should only apply to forward-projection baselines as well as historical averages should be used as baselines.

During Bonn III session, discussions were based on a Chair's note (FCCC/KP/AWG/2010/6/Add.2). Delegates exchanged views and presented four proposals from parties on accounting for forest management; *force majeure*; use of harvested wood products; and including and reviewing the reference levels for accounting of emissions and removals from forest management.

In the 15<sup>th</sup> session, parties were in favour for having a decision on LULUCF not to be a reason for a gap between commitment periods. The AWG-KP finally agreed on draft conclusions containing a draft COP/MOP decision (FCCC/KP/AWG/2010/L.8/Add.2).

### **Flexibility mechanisms:**

Discussions focused on the Chair's note on the flexibility mechanisms (FCCC/KP/AWG/2010/6/Add.3). The proposals covered a range of topics, including: CCS and nuclear under the CDM; standardized baselines; CERs; discount factors; joint implementation (JI) and co-benefits of CDM and JI; carryover of AAUs; share of proceeds for CERs issuance; emissions trading; new market mechanisms; wording of proposal on quantitative limit on supplementarity; and increased use of CERs from certain host countries with less than a certain amount of CDM projects.

In the 15<sup>th</sup> session, Parties decided in the Cancun Agreement that the flexibility mechanisms will continue to be available to Annex I parties as means to meet their emission reduction commitments (FCCC/KP/AWG/2010/L.8/Add.1). Besides the final

COP/MOP decision (FCCC/KP/CMP/2010/L.10) states that CCS is eligible under the CDM if issues of permanence are addressed.

### **Methodological Issues:**

Discussions on this issue (FCCC/KP/AWG/2010/6/Add.4) were focused on inclusion of new GHGs; common metrics to calculate CO<sub>2</sub> equivalence of greenhouse gases and application of the 2006 IPCC Guidelines; and the list of sectors and categories in Protocol Annex A.

In the 15<sup>th</sup> session, there was more convergence on the inclusion of nitrogen trifluoride. However, there are differences on specific gases; agreement on the need to expand the list of GHGs and Considered legal concerns regarding the relationship between discussions on new GHGs and amendments to Annex A of the Protocol.

In the Cancun Agreements (FCCC/KP/AWG/2010/L.8/Add.1), there is convergence that GWP<sub>s</sub> for CO<sub>2</sub> equivalence for the second commitment period will be provided by the IPCC.

### **Legal matters:**

The group considered a paper on legal considerations relating to a possible gap between the first and subsequent commitment periods (FCCC/KP/AWG/2010/10). Some developing countries, including Saudi Arabia and Bolivia, stressed that their participation in these sessions should not be interpreted as accepting a possible gap. Many developing countries also preferred keeping the focus on the agreement for a second commitment period under the Kyoto Protocol and finishing the AWG-KP's work in a timely manner. China questioned the value of the legal issues discussions, observing that based on Annex I parties' previous statements in negotiations, they do not appear eager to continue the Kyoto Protocol at all. However, Australia and the EU responded that all efforts should be made to avoid the gap.

On legal options for addressing the gap between commitment periods, the Secretariat's paper addressed the following: changing the amendment procedures to allow for expedited entry into force; provisional application of amendments as provided for in the Vienna Convention on the Law of Treaties; and Possible extension of the first commitment period.

New Zealand, EU and Australia expressed concerns on the provisional application of amendments and Japan underscored that creating a new legal framework that is fairer and more effective is the best way to address the gap issue. However, the African Group stated that "the Kyoto Protocol without an Annex B is a dead body" and urged adoption of provisions considering the provisional application of an amendment.

On the implications of a possible gap, the Secretariat noted that if mechanisms or institutions are characterized as assisting parties in meeting their obligations under

Article 3.1, then it is “doubtful” they would continue to exist without a second commitment period. Australia said a gap would not prevent the continuation of key elements of the Protocol, such as the CDM and JI. The EU agreed that it is up to parties to decide and that they believe the CDM will continue. Besides, 80% of global emissions trading is based on EU’s Emissions Trading Scheme and will continue operating regardless of a gap in commitment periods. However, many developing countries highlighted that the report was of value but that it should be considered for information purposes only.

In the 15<sup>th</sup> session, it has been agreed in Decision 1/CMP.6 to continue work under AWG-KP to avoid the possibility of a gap between commitments.

#### **Potential consequences of response measures:**

The focus was on the question of establishing a permanent forum or using existing channels, including national communications. Brazil said a permanent forum is necessary to report, evaluate and address the specific needs and concerns of non-Annex I countries. And also said information could come from national communications but also from other documents and reports. New Zealand and EU, however, said this might duplicate the work of the SBI in reviewing national communications and might contravene on parties’ sovereign rights. And the EU also noted that information needs to come from both developing and developed countries, and said the issue should be addressed under SBI and SBSTA.

In the 15<sup>th</sup> session, discussions continued, however, the issue remained unresolved.

## **4. Conclusions and recommendations**

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) was adopted at the third session of the Conference of the Parties (COP 3) in Kyoto, Japan, on 11 December 1997 and entered in to force on the 16th of February 2005. The first session of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP 1) established the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) on the basis of Protocol Article 3.9, which mandates consideration of Annex I parties’ further commitments at least seven years before the end of the first commitment period. The share of Annex I Parties to the total emission is 63.7%. Parties in Annex I which shares at least 55% of total Carbon dioxide emissions for 1990 have ratified the protocol <sup>2</sup>. These Annex I parties agreed to reduce their overall emissions of six greenhouse gases by an average of 5.2% below 1990 levels from 2008-2012 for the first commitment period.

To supplement meeting of targets for Annex I parties, three market based mechanisms have been introduced. The Kyoto mechanisms taken by a Party to achieve its target include: Emission Trading, The Clean Development Mechanism (CDM) and Joint Implementation (JI). The carbon market is growing and reaches \$30 billion in 2006.

There are now nearly 2382 registered projects worldwide. 77.46% of them are in Asia and the Pacific regions followed by 20.07% in Latin America and the Caribbean regions. The share of Africa is 1.93% where South Africa takes the lion share out of it<sup>3</sup>. To improve participation of African countries in the CDM projects different mechanisms like regional distribution and different incentive mechanisms need to be agreed.

From 1990 to 2007, the total aggregate GHG emissions excluding emissions/removals from LULUCF for all Annex I Parties decreased by 3.9 per cent, from 18,848.0 to 18,112.1 Tg CO<sub>2</sub> equivalents. Including LULUCF decreased by 5.2 per cent from 17,459.6 to 16,547.1 Tg CO<sub>2</sub> equivalents<sup>4</sup>.

This year is the first time for Annex I Parties which are also Parties to the Kyoto Protocol report all supplementary information in addition to the greenhouse gas inventory. The supplementary information includes KP-LULUCF and Kyoto Protocol units, changes in the national system, changes in the national registry and minimization of adverse impacts.

The current pledges by Annex I Parties that are also Parties to the Kyoto Protocol were expected to result in emission reductions of between 17 and 25 per cent below 1990 levels by 2020. However, if pledges by all Annex I Parties were considered, the level of emission reductions could be even lower, between 13 and 18 per cent. This was not consistent with the range of 25–40 per cent and the 2°C goal mentioned in the Fourth Assessment Report of IPCC and also confirmed in the recent peer-reviewed scientific literatures. It is agreeable that the scale of emission reductions in accordance with pledges are not sufficient, moving to the upper range of pledges by a number of Annex I Parties could only be achieved in the context of a global effort, including from countries that are major emitters. The two legal instruments, the Convention and the Kyoto Protocol, however, provided the foundation for relevant discussions on mitigation actions by respective groups of countries<sup>8,9</sup>.

After COP 15, four Climate Change Talks were held, two in Bonn, Germany from 31 May to 11 June<sup>8</sup> and 2-6 August<sup>9</sup> 2010, in Tianjin, China from 4-9 October<sup>11</sup> 2010 and in Cancun, Mexico from 29 November to 11 December 2010. The AWG-KP focus was on: Annex I emission reductions; Other issues including the flexibility mechanisms and Land-use, land-use change and forestry (LULUCF); and Legal issues on ways to avoid the gap between the implementation of the first and second commitment periods as well as Potential consequences of response measures. The Chair's draft proposal from Tianjin session (FCCC/KP/AWG/2010/CRP.4) was discussed and parties focused on narrowing down the options and to make progress on a number of issues. A revised Chair's proposal (FCCC/KP/AWG/2010/CRP.4/Rev.4) was forwarded for further negotiations in the coming sessions. Besides, some of the elements are incorporated in the Cancun Agreement (FCCC/KP/AWG/2010/L.8/Add.1-2).

The pledges of Annex I Parties need to base science. However, the pledges so far are inadequate to overcome the challenges of climate change. The pledges for the second commitment period from Annex I Parties reach 17-25% from 1990 levels by 2020. Besides, these pledges are also accompanied by loopholes. The main categories of loop holes include: LULUCF accounting rules, Market-based mechanisms, Surplus AAUs and

International aviation and shipping (“bunker fuels”) <sup>12</sup>. These pledges together with the loop holes will allow Annex I parties to emit more to the atmosphere. Annex I Parties need to lead us in emission reductions and our actions need to be supported by finance, technology and capacity building. Otherwise, the impact of climate change will affect most of the developing countries especially least developed once more and also hinder their development.

In order to deliver what the atmosphere is requesting and ensure the reliability and trustworthiness of Annex I Parties emission reduction, their pledges must raise using top down approach, and the loopholes must be closed.

Most parties are stressing that unless we reach an agreement on mitigation commitments or actions for developed and developing countries as well as the associated measuring, reporting and verification (MRV) of support to developing countries, no agreement will be reached on the other pillars. Hence, if part by part agreement is to come from Cancun onwards, mitigation needs to lead in order to have a balanced package. However, this did not happen in Cancun. The other issue for most of the developing countries is the continuity of the Kyoto protocol. However, most developed Parties have been raising the issue of comparability with non-Kyoto party, US. Till the issue of comparability is addressed by the two AWGs, a two way approach is an option. The US pledges can be handled in a COP decision, with the pledges of the other Kyoto Protocol developed country parties via a Kyoto Protocol second commitment period.

## End notes

---

<sup>1</sup>See details of Kyoto Protocol at [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)

<sup>2</sup>See [http://unfccc.int/essential\\_background/kyoto\\_protocol/status\\_of\\_ratification/items/5524.php](http://unfccc.int/essential_background/kyoto_protocol/status_of_ratification/items/5524.php)

<sup>3</sup> See [http://cdm.unfccc.int\(c\) 17.09.2010 14:54](http://cdm.unfccc.int(c) 17.09.2010 14:54)

<sup>4</sup>See the latest report of SBI (FCCC/SBI/2009/12) at <http://unfccc.int/resource/docs/2009/sbi/eng/12.pdf>

<sup>5</sup> Group of countries including: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, European Community, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland

<sup>6</sup>Country which has declared its intention not to ratify the Kyoto Protocol

<sup>7</sup>see the details of the Copenhagen Accord at the report of the COP (FCCC/CP/2009/11/Add.1) at <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>

<sup>8</sup>details of report of Bonn II (FCCC/KP/AWG/2010/7) meeting can be obtained from [http://unfccc.int/documentation/documents/advanced\\_search/items/3594.php?rec=j&preref=600005896#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&preref=600005896#beg)

<sup>9</sup>details of report of Bonn III (FCCC/KP/AWG/2010/11) meeting can be obtained from [http://unfccc.int/documentation/documents/advanced\\_search/items/3594.php?rec=j&preref=600005945#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&preref=600005945#beg)

<sup>10</sup>See details of the presentations made by Parties during Bonn III workshop at [http://unfccc.int/kyoto\\_protocol/items/5685.php](http://unfccc.int/kyoto_protocol/items/5685.php)

<sup>11</sup> See Details at [http://unfccc.int/documentation/documents/advanced\\_search/items/3594.php?rec=j&preref=600006005#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?rec=j&preref=600006005#beg)

<sup>12</sup> See details at <http://www.twinside.org.sg/title2/climate/bonn3.assessments.htm>

<sup>13</sup> See details at <http://unfccc.int/2860.php>

<sup>14</sup> See details at <http://unfccc.int/documentation/decisions/items/3597.php?such=j&volltext=/CP.15#beg>

---

## Appendix I: Quantified economy-wide emissions targets for 2020

<b>Annex I Parties</b>	Emissions reduction in 2020	Base year
Australia	5% up to 15% or 25%	2000
Belarus	5-10%	1990
Canada	17%	2005
Croatia	5%	1990
EU <sup>a</sup> and its Member States	20%/30%	1990
Iceland	30%	1990
Japan	25%	1990
Kazakhstan <sup>b</sup>	15%	1992
Liechtenstein	20%/30%	1990
Monaco	30%	1990
New Zealand	10%-20%	1990
Norway	30-40%	1990
Russian Federation	15-25 %	1990
Switzerland	20% / 30%	1990
Ukraine	20%	1990
United States of America	17%	2005

<sup>a</sup> Currently, not all EU Member States are Annex I Parties

<sup>b</sup> Kazakhstan is a Party included in Annex I for the purposes of the Kyoto Protocol in accordance with Article 1, paragraph 7, of the Protocol, but Kazakhstan is not a Party included in Annex I for the purposes of the Convention



Contact:

Postal Address: 57 Woodstock Road, Oxford, OX2 7FA, UK

Phone +44 (0) 1865 889 128, Fax: +44 (0) 1865 310 527

e-mail: [adm.n.ocp@gmail.com](mailto:adm.n.ocp@gmail.com)