



Institut de l'énergie et de l'environnement  
de la Francophonie  
IEPF

# **Understanding the international negotiations a few months away from the Copenhagen agreed outcome**

## **Analysis n°2**

**Stakes and state of the international negotiations on climate on the eve of the Bangkok meeting**

September 30th 2009

This note is a sequence to the first analysis based on the work in progress in the AWG-LCA and the AWG-KP in May 2009. During the Bonn meetings in June and August, the discussions and proposals were compiled into a negotiating text, consistent with the Bali Action Plan.

This second analysis is different from the first one: it aims to prepare negotiators and stakeholders for the major UNFCCC meeting in Bangkok, to be held from September 28<sup>th</sup> to October 9<sup>th</sup>.

It contains:

- An analysis of the work in progress on the main negotiating themes,
- A presentation of the main positions in the negotiations,
- An analysis of the proposals submitted regarding each pillar of the Bali Action Plan,
- The options on the nature of the outcome in Copenhagen.

The note does not claim to envision the content or nature of the agreed outcome. It is indeed impossible at this point to prejudge the outcome.

IEPF will most likely publish a third analysis before Copenhagen in an attempt to outline what we consider the most efficient and fairest outcome at COP 15.

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## 1 – THE NEGOTIATING PROCESS IS MOVING FORWARD

The negotiating text now contains all the elements requested by Parties and was finalized before the legal deadline (i.e. legal text must be submitted at least 6 months before the COP's vote in Copenhagen). End of June, the Parties received a 198 page-long negotiating text that contained every single proposal made by Parties in the previous months, under the 4 pillars of the Bali Action Plan<sup>1</sup>.

During the three months left before the year's final negotiating conference in Copenhagen, Parties are requested to decide the fate of the multiple options on the table and come to an agreement regarding the formulation of each selected proposal. Clearly, the content and objectives of COP 15's written outcome will need to ensure a broad political agreement and guarantee a stabilized temperature increase below 2°C (as this is one of the founding principles in the Rio Convention).

### 1.1 – The outcome of the SBSTA meeting in Bonn in June 2009

- ***The negotiating process is evolving as expected***

Since COP 11 in Montreal, the negotiating process has been going ahead without encountering major procedural difficulties:

- From January to the 17<sup>th</sup> of June, before the deadline for any legal text to be adopted at COP 15, Parties submitted their proposals as requested by the UNFCCC secretariat;
- The proposals were organized accordingly with the chapters in the Bali Action Plan by the Chairs of the Ad Hoc Working Groups for a) the Kyoto Protocol (AWG-KP) and b) Long Term Cooperative Action under the Convention (AWG-LCA);
  - A consolidated text, based on the proposals by Parties, was published by the Secretariat and served as a working paper in Bonn III (from the 10<sup>th</sup> to the 14<sup>th</sup> of August);
  - At the end of Bonn III, the consolidated text was published bearing the Parties' names next to each proposal, as requested by Parties;
  - A new version of the negotiating text was published by the Secretariat on September 15<sup>th</sup> in which redundant proposals became one and the structure was simplified. This new version is once again anonymous.

- ***The reports by the Ad Hoc Working Groups***

The Bali Action Plan defines the terms of reference of this negotiating round and founds the work of both the AWG-KP (commitments for the post-2012 period) and the AWG-LCA (long-term cooperative actions).

The Chairs published two reports so far: the first one defined the negotiation content and proposed a work schedule for 2009; the second one states the progress made and takes note of the Parties' proposals.

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<sup>1</sup> The Bali Action Plan defines mitigation, adaptation, financing and technology transfers as the four pillars for the next agreement on climate change

These documents usefully clarified the content of the negotiating process by making a list of the main negotiating points:

- The confirmation that industrialized Parties need to commit to mitigation objectives, in accordance with the Kyoto principle;
- The established fact that differentiating advanced developing countries and developing countries is politically impossible, although the United States and other A1 countries had requested that China and India commit to legally binding commitments to reduce their emissions;
- The broad agreement on the idea that NAMAs (Nationally Appropriate Mitigation Actions) could constitute national mitigation plans by developing countries, on a voluntary basis;
- The need to develop financial mechanisms to support NAMAs, adaptation actions and actions against deforestation.

### • ***The Bonn III conference in August***

At the start of the AWG-LCA's 6th meeting, the Chair suggested a new working method: the negotiations should focus solely on the negotiating text (i.e. the text composed of the Parties' proposals) in informal meetings instead of the usual contact groups.

The Bonn III meeting saw little progress in the AWG-LCA's work schedule and the text was not simplified as expected:

- On most topics, both AWGs were slowed down by very strong disagreements among Parties: particularly on the issues of the level of commitment by developed country Parties, of financing, of technology transfers, of the types of participation by developing countries;
- Progress was made on the REDD mechanism;
- As the negotiating round entered a new phase, the positions hardened.

### • ***Weak mitigation targets by A1 countries that have not fostered ambitious proposals***

Since the European Union announced its commitment to reduce emission by 20 to 30% by 2020, other proposals made were far below the -25 to -40% range recommended by the IPCC's 4<sup>th</sup> Assessment Report (AR4). Japan and New Zealand recently announced their 2020 goals: respectively -25% and -10 to -20% (cf. chapter on mitigation targets).

## **1.2 – Recent facts**

### **Pessimistic projections**

- The more recent science highlights an unexpected acceleration in the global warming process.

#### **Increasing emissions: projections by the US energy department<sup>2</sup>**

- The CO<sub>2</sub> emissions could increase from **28 Gt in 2006 to 38.7 Gt in 2020**,
- From 1990 to 2000, the average carbon intensity in industrialized countries increased from 0.27 tons for US\$1000 GDP to 0.53t for 1000\$ GDP,
- Annual emissions in non-OECD countries could increase **from 17.3 to 22.3 Gt CO<sub>2</sub> between 2010 and 2020**,
- The carbon intensity in developing countries could be 3 times higher than in developed countries,
- Annual energy-related emissions in OECD members could increase from **14 à 16 Gt**

<sup>2</sup> *International Energy Outlook*, Energy Information Administration, US Department of Energy, 2008.

between 2010 and 2030.

#### **The potential impact of energy efficiency**

- The carbon unit could be more efficient by 7%: global emissions could increase to 31.7 instead of 38.7 Gt in 2020.
- Deploying the best fossil fuel technologies in the energy sector could save **1.8 to 2.5 Gt per year**.

## **2 – A MAZE WITH 5 ENTRIES**

The maze with 5 entrances gives us a simple image of the issue: there are 5 possible negotiating elements that could be used as a starting point for the active negotiating phase.

### **2.1 – Entering the negotiating process through the climate goals: the Bali attempt**

The first entry is that of the climate goals, based on the IPCC's AR4. This approach failed at the Bali and Poznan conferences. Yet, the IPCC-observed evolutions in climate change make it crucial to adopt the following decisions:

- Global warming must be kept below 2°C with regard to the pre-industrial temperature levels,
- The concentration of greenhouse gases in the atmosphere must not exceed 450 ppm,
- A 50% cut in GHG emissions by 2050 (1990 baseline).

The temperature increase must stabilize below 2°C above pre-industrial levels: not only because of a general concern to protect the environment but because, beyond a 2°C increase, scientists cannot predict the effects of global warming on our ecosystems: water and food availability would be directly threatened and the rising ocean levels would affect a majority of the world's population. The argument used in Bali was hence quite strong as it attempted to define goals according to the planet's common interest and needs.

Focusing the debate on the « shared vision » -regarding long-term climatic objectives- in Poznan did not succeed in building a foundation for the negotiating process as it was expected. Indeed, a stabilization goal for the world's climate implies a 50% reduction of global emissions by 2050 and consequently, implies the need for *all* countries to bear an (un)fair share of the mitigation goal without implicitly guaranteeing the poorest countries a right to development.

The idea of « shared vision » contains principles such as moral, equity, trust and solidarity and the will to build a common future. However, developing countries do not wish to give up the principle of historical responsibility that morally/ethically binds industrialized countries to reduce their emissions and ensure access to development for poorer countries.

This concern was voiced a number of times by the G77 + China negotiating group at the Bali Conference but was little heard. **It is however crucial that the agreement ensure climate stabilization as well as equity and development for all Parties.**

In July 2009, the G8 signed a declaration that, for the first time, acknowledged the following scientific statement: *“the scientific view that the increase in global average temperature above pre-industrial levels ought not to exceed 2 degrees C”*<sup>3</sup>. The countries also agree that tackling climate change requires a 50% cut in emissions by 2050. However, there is no consensus on the baseline year: the European Union (EU), following the IPCC guidelines, requested 1990 but the USA called for a more recent base year.

Developing country Parties accept the idea of a shared vision and see the IPCC as a legitimate scientific reference. However, as long as the negotiation outcome does not include serious

<sup>3</sup> Declaration of the leaders at the Major Economies Forum on Energy and Climate, Aquila, July 2009.

development guarantees and the means to access development, the G77+China will reject a global and legally binding framework based on a 50% cut in global emissions.

The shared vision was, at this stage of the negotiating process, an unrealistic and unfeasible entry point. A shared vision will probably be the outcome of progress on other negotiating points.

## **2.2 – Entering the negotiating process through the commitments by A1 countries in the Kyoto Protocol**

The second – and historically most justified – entry was that of the commitments made by industrialized countries at Kyoto. However, the Kyoto commitments have been an issue for a long time now.

- **Firstly, the United States do not wish to sign the Kyoto Protocol**

The G.W Bush administration had previously raised 3 objections to the Kyoto Protocol:

- It questioned the scientific proof of climate change;
- It perceived climate change policies as a threat to the nation's economic interests and to the American lifestyle,
- It rejected any legally binding UN treaties that implied sanction.

The first two objections were waived by Obama's administration. Nonetheless, the slippage in American emissions means that, no matter how hard the country tried to make up for lost time, reducing emissions by 2012 below 1990 levels will prove extremely difficult. The new administration announced that the US would not ratify the Kyoto Protocol because the goal that they would have to commit to is unfeasible by 2012 or even 2020. Furthermore, the State department is still hostile to ratifying a treaty with a sanction mechanism.

- **Secondly, most of the A1 countries will not achieve the emission reduction targets they committed to in Kyoto.**

- Within the European Union, the following countries will not reach their emission reduction target (in the following order): Spain, Greece, Ireland, Italy and Belgium. Nonetheless, the EU-15 may manage to reach its global objective (-8% compared to 1990 levels by 2012) with the contribution of a few countries such as Germany or the UK and through major offsetting (CDM projects and carbon credit acquisition). End of 2007, the EU-27 had reduced its emissions by 9.3%, due to the major emission reductions achieved by new EU members from central Europe.
- Ex-USSR countries have met their commitments, mainly by closing down high-emitting industrial plants after the fall of the Soviet Union. Russia, Ukraine and Belarus strongly reduced their emissions. New members of the EU – Poland, Estonia, Slovakia, the Czech Republic, Hungary, Slovenia, Latvia, and Lithuania - also saw a fall in their domestic emissions. Thus, the EU will reach its target mainly because of the enlarged European members, which were committed to a neutral or positive mitigation target.
- The current emissions in other A1 countries – Canada, Australia, New Zealand, Japan, Switzerland, Norway, and Iceland - are disappointing.

Globally, the emissions reductions achieved are far below the weak mean 5.2% emission reduction requested of A1 countries at the Kyoto Conference.

- **The idea of quantified commitments is acknowledged and accepted by all Parties**

The situation is paradoxical:

- Although opinions diverge on how to ensure the fulfillment of commitments, all industrialized countries acknowledge the need to commit on the long term and the need these commitments to be legally-binding;
- The conformity clauses in the Kyoto Protocol will prove difficult to apply, namely because of the massively postponed emission reductions to the second commitment period. We suggest applying an additional 30% penalty target on the share of emissions that was not reduced;

- Each country is negotiating its commitment for the second period according to its current (often weak) progress and is not, de facto, taking into account the possibility of a catch-up target. It should be noted that the shorter the commitment period, the less feasible it becomes to catch up.
  - To date, very few countries – a part from ex-USSR countries and a few EU members- are on the path to reaching a target within the IPCC 25-40% reduction range by 2020.
- ***The reference year to calculate the reduction targets and the emission levels for the second commitment period***

Opinions diverge on the base year for the new commitments:

- Countries which have made serious progress in mitigating their emissions wish to see their efforts acknowledged and wish to keep 1990 as the base year (namely, the G77 + China and the EU);
- Countries with increasing (instead of decreasing) emissions wish to base their commitment on a more recent reference year (2000, 2005 or 2006).

Unsurprisingly, the heterogeneous emission trends and the weak emission reductions have not succeeded in rallying developing countries, scientists, NGOs or the media. This second entry point in the negotiation process is little more convincing than the shared vision entry point. The commitments by developed countries failed in creating a political and trustworthy foundation for the negotiating process. Commitments will definitely be one of the main issues in Copenhagen.

### **2.3 – The third entry point to the maze: money**

Ever since the start of this negotiation round, it was clear that in order to reach an agreement, A1 countries' mediocre performances would need to be mended with strong financial commitments channeled towards developing countries. However, the financial capacity disappeared when the financial crisis cut the world's major companies' assets by 50%. The crisis also led governments to use the money available to implement short-term employment policies. Hence, the Chinese economic plan was cut down to 402 billion. Copenhagen may not see any financial contributions on the table. The 2010 contributions will depend on the crisis' evolution (aggravation, stagnation or deflation). In any case, the financial entry point is at a stand-by for now.

- ***Negotiating the financial means***

Developing countries are putting forward their right to aid. They demand sufficient financial and technological resources from the historically emitting countries (that are hence responsible for climate change) to adapt to climate change. Some also demand compensation for the damages caused by the currently slipping emission trends in developed countries. A few years away from 2012, developing countries are still waiting for the financial aid promised in Rio and Kyoto by developed countries.

The financial issue is directly linked to a trust issue: **developing countries refuse to design new programs and implement new actions before receiving the financial aid for the previous programs and actions.** To resolve this issue, the Least Developed Countries (LDCs) were requested to draw up National Action Plans for Adaptation (NAPAs), after which they would receive the necessary funds to implement the plan. However, in October 2008, the numbers were clear: 38 countries had published their NAPA but in total, only \$US 115 million (vs. the \$US 341 million needed) had been transferred by the Least Developed Country Fund (LCDF), governed by the GEF.

The financial crisis dried up the meager financial capacity, but also diminished the developing country Parties' trust in market-based mechanisms (*cf. Bonn August 2009*). Yet, these mechanisms will prove necessary to fill the gaps of public funds and traditional aid resources and to finance the cost-efficient actions. This context of mistrust will hinder the discussion on financing although it is a crucial component of the agreement for developing countries. Considering the scarce financial support for actions in developing countries so far, the financial argument cannot be used as an impetus to reach an agreement in Copenhagen.

## 2.4 – The 4th entry point consists in an agreement among major economies, outside of the UN framework

The big question is: is the best solution to give up a discounted and inefficient international agreement and consequently, favor potentially efficient bilateral agreements that however, will not resolve the development issue? It may well be a trick question. This solution could be beneficial on the short term if major emitters took action outside of the legally-binding framework; but it could not be a solution considering future high emission trends in developing countries not could it resolve development issues.

Indeed, there have been attempts to sign agreements outside of the UNFCCC: namely, a multilateral agreement at the Major Economies' Forum and a bilateral agreement between China and the US.

The US has reiterated its preference for the bilateral option and considers a direct agreement among major emitters to be a quick and efficient solution to the climatic problem. From afar, the Chinese and the American situations appear very similar: they both reject the idea of legally binding commitments, with penalties, in an international framework.

### Compared energy consumption figures in China and the United States<sup>4</sup>

Country	GDP per capita (\$/capita)	Primary energy consumed per capita (Ktep/capita)	Electricity consumed per capita (MWh/hab)	Vehicles for 1000 residents	Energy intensity (tep/US\$ppp2000)	CO <sub>2</sub> emitted per capita (T/capita)	CO <sub>2</sub> per GDP unit (KG/2000 U7SD)
United States	37209	8,4	12,8	840,5	0,22	19,8	0,51
China	5882	1,4	1,9	26,6	0,34	4,6	2,68

The *rapprochement* of the two major GHG-emitters was made official end of July, with the signature of a "memorandum" calling for cooperation in ten sectors related to energy, climate change and the environment (namely: energy efficiency, renewable energy, clean coal, electric cars, energy-saving buildings, R&D, Carbon Capture and Sequestration technologies). However, the memorandum does not mention quantified targets. It sets the "foundations for a long-term dialogue between the two countries". Considering the vague formulations used in the document, the latter's significance can be questioned. Is this agreement an American tactic to get rid of the existing flexibility mechanisms whilst preparing for cooperative R&D on technologies of the future?

A simple statement underlies this type of bilateral agreement: it would take the international community back to a two-block configuration, ruled by two major economies cooperating because of common interests. This US-China configuration would push other emerging countries and developing countries aside.

De facto, is an agreement between the first two world powers conceivable? No, because it would imply a fracture between China and the rest of the developing world.

Indeed, China regularly voices two concerns:

- First, its will to be at the brink between the industrialized world (to which China's economy de facto belongs) and the developing world (to which China's population mainly belongs). The Middle Kingdom stands in the middle.
- Secondly, one of China's priorities is the reinforcement and readjustment of its industrialization trend. The country is particularly insistent on technology transfers and changes in intellectual property rights. A taboo issue in the US.

This duo-governance approach will probably fail, even more since the other emerging countries rejected the idea of bilateral agreements at the Major Economies' Forum last July: there should be an international agreement or there will be no agreement.

<sup>4</sup> Centre d'Analyse Stratégique, « Analyse : La Chine dans le processus de Copenhague : la difficile inclusion d'un grand émergent » Note de Veille n°140, Juin 2009.

## 2.5 – The 5th entry point: negotiating adaptation and mitigation actions

The negotiation round is encountering serious difficulties and something must be done to recreate trust and give impetus to the negotiating process. **Concrete action is the most convincing and consensual entry point so far.**

The sole positive point in the negotiating process so far is the NAMA proposal: it calibrates actions according to the development level of each country but also implies actions by all countries. However, developing countries need more convincing. They are suspicious of any new mechanism considering the past mechanisms' failure to deliver both development and money. Developing countries should support NAMAs as it the only option on the table with the power to reconcile mitigation and development goals.

The debate is nonetheless very complex. Should actions be sufficiently individualized to allow for flexibility and adequacy with national contexts and various financing tools (bottom-up approach)? Or should NAMAs be plans or national programs directly linked to the global negotiation process (more of a top-down approach)?

In both cases, designing and implementing these programs and actions will take time and depend on the financing options available, the level of contributions and the level of emission reduction commitments by developed countries. Technology transfers and capacity building will need to be integrated in the NAMA system.

A global system for so many countries will require capacity building for the conception, the monitoring (registry) and the verification (MRV). All of this can hardly be consolidated in time for the Copenhagen conference. It will take time. This entry point can help build up trust among Parties. However, substantial work is needed in the next year(s) to implement an equitable financial system to pay developing countries for their NAMAs, accordingly with their level of development and their vulnerability to climate change.

## 2.6- Little trust among Parties

A few months away from Copenhagen, there are no sufficiently consensual entry points to serve as a basis to negotiate an agreement by Copenhagen.

Industrialized countries have lost all credibility since they are proving unable to reach a weak target and because they are bringing so little money to the table.

Developing countries are focused on a traditional vision of the "right" path to development that scarcely takes climate change into account.

A major concern is the missing trust. In these conditions, trust could build up on a first series of engagements:

- High reduction target commitments by developed countries (with longer time periods);
- The choice of credible financing options with predictable contributions: taxes, shares of proceeds, auctions;
- Reinforced financial contributions by developed countries for the 2010-2012 period to fund immediate capacity-building and pilot-action programs;
- Extend the scope of mitigation to deforestation actions, adaptation actions, R&D and transfer of technologies;
- Pragmatic action through concrete achievements: implementation of NAPAs, NAMAs and REDD actions.

## 3- EVOLUTION IN THE POSITIONS OF THE MAJOR COUNTRIES AND NEGOTIATION GROUPS

### 3.1 - Equity and Responsibility

The principles of equity and differentiated responsibility among countries, often reiterated during the conferences, are the two political conditions to accepting to take part in the global effort. The core issue of equity is a decisive factor in the commitments by A1 countries but also generates debate around possible contributions by non-A1 countries as perfect equity would require differentiating contributions *among* developing countries too.

Highlights on the Copenhagen preparatory negotiations:

- The issue of equity is extremely present in political discourses;
- Yet, no concrete actions have emerged from these discourses because the debate lacked structure, and the criteria defining equity have not yet been discussed by Parties;
- The various proposals made so far have not been echoed in the negotiating arena. This means that the negotiation of equity will be blindfolded and depend of political alliances.

There are four main approaches to equity:

- **An ethical approach to equity**

An example of this approach is the allocation of a per capita right to emit.

**The « Greenhouse Development Right », Heinrich Bollung Center (Poznan 2008):**

It is possible to define a development threshold. This threshold would correspond to a level of minimum level of wellbeing that is more than the sole satisfaction of vital needs. Beyond that threshold, the individual is responsible for his additional emissions as they are considered « supplemental » to his needs in terms of socioeconomic development and wellbeing. The GDR proposes a flexible tax on each individual's extra emissions. This proposal is extremely equitable and would put an end to the rigid categories of countries within the Convention.

- **A historical approach to equity**

Historical responsibility-based equity is strongly advocated by India and Bolivia in particular. Industrialized countries contributed to strongly increase the GHG concentration in the atmosphere. They consequently contracted an ecological debt to be paid off via strong GHG emission reduction targets and via financial/technological aid to help developing countries achieve the same level of development. Developing countries should be able to emit as much as they need to achieve this level of development.

The Secretariat organized a debate on historical responsibility during the Bonn conference in June 2009. A number of guest-speakers gave their view on how to transcribe historical responsibility into a fair agreement.

**Professeur Shue (Oxford University):** historical responsibility is a complex issue. Industrialized countries did not know the impact of their emitting activities at the time and a crime cannot be created ex-post. Most theories tend to link historical responsibility and the need for equal per capita emissions yet according to Prof. Shue, we do not all need the same amount of emissions for our development. His vision of equity recommends free emissions for the poorest whilst those who had free emissions now have to pay.

**Dr. M. Khor (South Center)** developed the concept of "negative emissions". It is possible to cut emissions by more than 100% by creating net carbon sinks. There were 600 Gigatons (Gt) of carbon available to be shared out among countries: A1 countries have already consumed 240 Gt, in other words 115 Gt more than their allocated budget. These negative emissions need to be compensated with financial and technological support. Contributions to a fund by A1 countries could be calculated using a factor (based on the level of infrastructural/social/technological development).

**Dr Miguez (Brazil)** reiterated the proposal made by Brazil in 1997. Based on the accumulation of CO<sub>2</sub> in the atmosphere and the various stages of decay of the GHG emissions, Brazil defines historical responsibility as starting in 1850 since CO<sub>2</sub> is stocked in the atmosphere up to 990 years. Hence, annex 1 countries are responsible for 90% of the GHG concentration in the atmosphere, both past and future.

**Dr. Gosh (India)** defined the atmosphere as our "environmental space" provided by countries. A1 countries have used up most of this environmental space. Non Annex 1 countries, on the other hand,

have a negative historical responsibility. Environmental space cannot be recovered so A1 countries will need to compensate non annex 1 countries.

**Dr. Fei (China):** cumulative per capita emissions are indicators for a fair allocation of emissions. A1 countries should make deep cuts in their emissions and compensate NA1 countries in terms of distributive justice for mitigation actions and corrective justice for adaptation.

The ethical and historical approaches are political arguments rather than applicative proposals. The selected equity principle should lead up to one of the following processes:

- **An « optical » approach to equity**

This empirical approach was adopted in the final negotiation phase in Kyoto: indeed, A1 countries were allocated targets in a very narrow 6-8% range, thus giving the impression of a strong equivalence between targets. This journalistic shortcut led to define equity on the basis of figures, without actually comparing their content or taking into account the level of development, the population, the national resources or the climatic specificities. Yet, applying the same emission reduction target to two countries with extremely different emission trends is an unfair distribution of the burden. On the other hand, the EU allocated commitments to its members based on political and technical criteria, thus creating strong discrepancies among the targets.

This difficulty to fairly allocate emission reduction commitments has grown in this negotiating round:

- Countries with slipping emissions are announcing bigger emission reduction targets for 2020 but at the same time, they are changing the base year and not mentioning the share of offsets, etc.
- There is a growing discrepancy between the per capita emission levels. This makes it more difficult for industrialized countries with lower per capita emissions to take on a strong target compared to countries with very high per capita emissions, more easily mitigated.

It is of concern that this issue has not yet been dealt with officially, either through a UNFCCC Secretariat mandate or through cooperative research programs among countries.

- **A technical approach to equity**

This approach is based on technical comparative criteria. Since Rio, many research institutes have attempted to find the optimal set of criteria. A number of criteria were recommended:

- Emissions per capita;
- Emissions per level of development (for example, carbon units/wealth unit);
- Emissions per unit produced (for example, carbon units per electric kWh, ton of cement or metal);
- Geographic and climatic constraints (heating needs, demographic density...).

These criteria should be mixed together to build up a technical approach to equity. To date however, these publications have not led up to consensus on the criteria to ensure a fair allocation of the burden. Furthermore, the current classification system of “annex I” and “non-annex I” countries, adopted in Rio, does not allow for a fair distribution of responsibilities. However, questioning this classification is difficult as it would overturn the currently accepted paradigm neatly separating developed and developing countries. Also, negotiating a fairer classification system would require more time.

In any case, an urgent solution is needed to a) identify the countries which have achieved their targets; b) take emerging economies and their growing responsibility into account and c) guide all countries on the path to a low-carbon development.

Some Parties have proposed to calculate emission reduction targets based on a reduction of the carbon intensity per unit produced.

**Japanese proposal to establish « intensity targets »:**

To achieve a fairer allocation of the mitigation burden, Japan recommended inciting advanced developed countries to take on carbon intensity targets: these targets would focus on reducing the carbon content of industrial production and processes: for example, ton CO<sub>2</sub>/US\$ or energy consumption/unit produced.

However, a number of countries are asymmetrical:

- Between energy-producing countries and energy-consuming countries that are not considered responsible for the emissions induced during the energy extraction and production processes;
- Between heavily industrialized countries and consumerist and tertiary countries. In fact, according to the emission accounting methodology, delocalizing activities in another country is considered an emission reduction effort.

Clearly, the current system does not give a fair representation of countries.

- ***An approach based on the means of implementation***

The two past approaches are result-based. Another approach consists in a vision of equity based on the means of implementation. This approach, put forward during the Kyoto negotiating round, had failed because no agreement was reached among Parties on the policies and measures. This kind of approach, linked to common research programs and to a tax system on air transport or energy for example, could be both constraining and flexible.

The NAMA proposal, which consists in globally implementing actions although enabling countries to choose the actions, could be part of this approach of equity.

### ***3.2 – Emission reduction targets in developed countries***

- ***Consensus on the need for commitments but a strong disagreement on the numbers among annex 1 countries***

Most countries agree that the Kyoto Protocol was a major step forward in that it committed industrialized nations to GHG emission reductions. For the next period (2009-2020), countries have so far announced targets around 15%. Will be committed to an internationally legally binding target industrialized countries in annex 1 and new members of this category. For the United States, this commitment may be national (if voted by the Congress). It is indeed likely that the US reject an international commitment.

At the meeting in Bonn in August 2009, the AWG-KP focused the discussions on annex 1 countries' aggregate and individual quantified targets for the next period.

The meetings were stormy because the targets announced so far only add up to a meager 10-16% reduction compared to 1990, far from the -25 to -40% recommended by the IPCC, further away from the -40% demanded by China and 37 other developing countries, and far far away from the -45% requested by AOSIS countries.

- ***Proposals by countries relative to the amendment of article 3.9 of the Kyoto Protocol***

The AWG-KP's chair's last note, published on May 14<sup>th</sup>, compiles all proposals made by Parties to amend article 3 of paragraph 9 of the Kyoto Protocol. This article enables Parties to renegotiate targets for the next period. The proposals are often structured as tables designed to replace the table of quantified targets currently in annex B of the Protocol. None of the proposals question the Kyoto Protocol or the annex 1/non annex 1 classification. On the other hand, all of the proposals assume that the United States will ratify the Protocol and that the commitments will be published as an annex.

Most of the proposals choose to end the second period between 2017 and 2022. Most of the options suggest the division in two sub-periods of the next commitment period, for example 2013-2017 and 2017-2022. This could allow a review of the targets based on the IPCC's 5<sup>th</sup> Assessment Report and based on the countries' progress. Setting two successive objectives, as suggested by Bangladesh, could enable the progressive commitment of non-annex 1 countries.

The proposals also reflect on the nature of the table, which would be a legally-binding document containing the countries' commitments. Some of the tables are very brief, others are very specific (reduction rates; different base years; various time periods). The Philippines and South Africa proposed tables with unrealistic quantified commitments for developed countries (The Philippines suggested -37% for the EU and -39% for the United States by 2017).

- **The reference year to calculate the reduction targets?**

If Europe and the G77 + China wish to keep 1990 as the base year, countries that did not succeed in reducing their emissions during the first period requested a new base year (US, Canada, Australia, New Zealand).

- **Targets and carbon sinks**

National targets will depend on the accounting rules defining carbon sinks (linked to Land Use, Land Use Change and Forestry (LULUCF)) for the second commitment period. New Zealand in particular announced a large share of carbon sinks in its emission reduction target. Along with Norway, New Zealand could decide to modify its target in accordance with the finalized LULUCF rules. Australia also heavily relies on LULUCF, on the condition that changes in carbon sinks due to bushfires are not accounted for. Canada, Japan and the EU are the only countries to achieve their targets without including LULUCF.

- **The targets recommended by the IPCC**

The IPCC recommended that countries globally reduce their emissions between -25 and -40% by 2020, in order to achieve a 50% cut by 2050. This recommendation was not supported by a detailed feasibility study but based on the absolute figures requires to stabilize climate change.

The G77's proposals indicate that industrialized countries should commit to this global target, even in the case that some developed countries refuse to make an international commitment. This could be a political tactic to intensify pressure on the United States.

- **The targets announced so far by Annex 1 countries**

In a joint submission, Australia, Belarus, Canada, the EU, Iceland, Japan, New Zealand, Norway, Russia, Switzerland and Ukraine officially announced the following commitments for 2020<sup>5</sup>:

Party	Information relating to possible QELROs		Inclusion of LULUCF	Status
	Range or single value by 2020, percentage	Reference year		
Australia	-5% up to -15% or -25%	2000	Y	Officially announced
Belarus	-5% to -10% <sup>1</sup>	1990	TBD	Officially announced
Canada	-20%	2006	TBD	Officially announced
European Union	-20 to -30%	1990	N for -20% Y for -30%	Adopted by legislation
Iceland	-15%	1990	Y	Officially announced
Japan	-15% <sup>2</sup>	2005	N	Officially announced
Liechtenstein	-20 to -30%	1990	N	Officially announced
Monaco	-20%	1990	--	Officially announced
New Zealand	-10 to -20%	1990	Y	Officially announced
Norway	-30%	1990	Y <sup>3</sup>	Officially announced
Russian Federation	-10 to -15%	1990	TBD	Officially announced
Switzerland	-20 to -30%	1990	Y	Consultations in progress
Ukraine	-20%	1990	TBD	Under consideration

TBD: to be decided.

### 3.3- What 2020 commitments in the Kyoto Protocol?

- **Achievable reduction targets?**

<sup>5</sup> Version updated in August by an addendum to the initial proposal submitted to the UNFCCC. Belarus' target will depend on the access to flexibility mechanisms. Norway may modify its target according to the finalized LULUCF rules. The Japanese target does not contain offsets. In fact, a higher target was announced by Japan recently but with offsets included this time.

The main difficulty lies in the gap between emission trends and the Kyoto trajectory in major countries: Canada, USA, Australia, New Zealand and a number of European countries (cf. Tables p.16 and 17).

Realistically, improving carbon intensity by more than a net 3% will prove very difficult on a short period. Achieving an 85% reduction of industrialized Parties' emissions requires a net reduction rate of 4.6% per year compared to 1990 levels. For an industrialized country with an economic growth of 2% per year, this means reducing emissions by a gross 6.5% per year. Furthermore, countries that have increased their emissions by 20% since 1990 would need to reduce their emissions at a minimal annual net rate of 5.1% in the next 40 years.

Three types of policies could contribute to achieve these targets but only if they were implemented immediately and simultaneously:

- Massive substitution of fossil fuels with low-carbon or carbon-zero resources in electricity production and/or the development of technologies such as CCS;
- A transport policy focused on the car market, on consumer behavior, and on the development of alternative vehicle modes;
- Energy saving policy in all sectors (the buildings and construction sector in particular).

However, these policies have scarcely been implemented as yet.

**In practice, it is nearly impossible for a country to reduce its emissions by 20% within the second commitment period (11 years).** This time span is too short to make heavy investments and to build up new economic and technical channels.

- ***The European Union's case***

For the second period, the EU is committing its 27 members (EU-27). In 2007, the EU-27 had already reduced its emissions by 9.3%. This means that reaching the -20% target by 2020 will require a 10.7% reduction between 2007 and 2020 (not a drastic commitment compared to other A1 countries). This target translates into a 0.78% net annual reduction rate.

**If the EU-27 committed to a 30% reduction by 2020, it would translate into a 1.77% net annual reduction rate.**

These figures clearly show that most countries (other than ex-USSR and EU countries) will not manage to reduce their emissions in the 25-40% range recommended by the IPCC.

If developed country Parties (except the EU) committed to a target that reduced emissions back to 1990 levels to make up for the past slippages in emission trends, the world's public opinion would consider the post-2012 agreement as a failure that could hinder participation on the developing world's part.

- ***A fair allocation of emission reductions targets by 2020***

- Simulating a 1.5% of emission reduction per year

Let's adopt another approach. Let us assume a 1.5% net annual reduction rate, which is close to the highest reduction rate achievable in the short term. This would lead the EU to an additional 2007-2020 target of 17.8% and imply a global target for the period of 25.5%. The 30% target by the EU is achievable. It would imply a 2% net annual reduction rate between 2007 and 2020.

- Simulating a 3% yearly emission reduction

Cf. table with 3% calculations.

- ***Forcing countries to agree to high reduction targets for 2020?***

If A1 countries agreed to make strong commitments for the 2012-2020 period, most non-annex 1 countries would reject the agreement as not credible or even feasible. The previous observations are not very stimulating for new OECD members requested to make commitments for the second period (Turkey, Mexico, and South Korea).

Canada proposed a comparable commitment for all industrialized countries up to and beyond 2020. This proposal makes sense, even though it was submitted by one the countries furthest from its 2012 target.

- ***Tables of the targets proposed for the second commitment period***

The two following tables compare actual emissions in each annex 1 country with the targets they should each reach by 2012. They also project possible emission reductions by 2020, based on the actual emission trends (mostly 2007) and two annual reduction rates: 1.5 and 3%.

Uniform emission reductions do not take into account varying levels of emissions per capita. At some point, further calculations will be needed to differentiate targets according to national circumstances.

Countries of the European Union	Kyoto target	Actual level of emissions (2007) compared to 1990 levels	Gap with Kyoto targets	Level of reduction on the 2007-2020 period, based on a 1.5% annual reduction	Target achievable between 1990-2020 (in %) based on a 1.5% annual reduction	Target achievable between 1990-2020 (in %) based on a 3% reduction
Germany	-21%	-22.4%	-1.4%	-20.2	-36,24	-47,77
Austria	-13%	+11,3%	+24.3%	+5.5	-8,55	-25,09
Belgium	-7,5%	-9,9%	-2.4%	-21.2	-25,97	-39,36
Bulgaria	-8%	-43.0%	-35%	-53.8	-53,17	-61,64
Denmark	-21%	-3.9%	+17.1%	-1.7	-21,04	-35,32
Spain	+15%	+52.6%	+37.6%	+19.8	+25,38	2,70
Estonia	-8%	-48.3%	-40.3%	-59.1	-57,52	-65,20
Finland	0%	+10,3%	+10.3%	-8.5	-9,38	-25,77
France	0%	-5.8%	-5.8%	-24.6	-22,60	-36,60
Greece	+25%	+23.2%	-1.8%	-20.6	1,22	-17,08
Hungary	-6%	-34.2%	-28.2%	-47.0	-45,94	-55,71
Ireland	+13%	+24,5 %	+11.5%	-7.3	2,29	-23,95
Italy	-6,5%	+6.9%	+13.4%	-5.4	-12,17	-28,05
Latvia	-8%	-53.4%	-45.4%	-64.2	-61,71	-68,64
Lithuania	-8%	-49.9%	-41.9%	-60.7	-58,84	-66,28
Luxembourg	-28%	-1.9%	+26.1%	-7.3	-19,40	-33,98
The Netherlands	-6%	-2,6%	+3.4%	-15.4	-19,97	-34,45
Poland	+ 6%	-29.2%	-23.2%	-42.0	-41,83	-52,35
Portugal	+ 27%	+36.1%	+9.1%	-9.7	11,82	-8,40
Czech Republic	-8%	-22.4 %	-14.4%	-33.2	-36,24	-47,77
Romania	-8%	-45.3%	-37.3%	-56.1	-55,06	-63,19
United Kingdom	-12,5%	-18%	-5.5%	-24.3	-32,63	-44,81
Slovakia	-8%	-34.8%	-26.8%	-45.6	-46,43	-52,12
Slovenia	-8%	+1,2%	+9.2%	-9.6	-16,85	-31,89
Sweden	+4%	+1.8%	+5.8%	-13.0	-16,36	-31,49
European Union	-8%	-5,0%	+3.0%	-23.8	-13,73	-36,06

Other annex 1 countries	Kyoto target	Actual level of emissions (2007) compared to 1990 levels	Base year chosen for 2020 target	2020 announced target	% reduction by 2020 based on the countries proposals	Emission reductions achievable between 1990-2020 (in %) based on a 1.5% annual reduction	Emission reductions achievable between 1990-2020 (in %) based on a 3% annual reduction
Australia	+8%	+8%	2000	-5 à -25	-19	-11,27	-27.31
Belarus	0%	-2,6% (in 2004)	1990	-10 à -15	-17,21	-19,97	-34.45
Canada	-6%	+35%	2006	-20	+8	10,92	-9.14
Croatia	-5%	-14%				-29,37	-42.12
United States	-7%	17%	2006	-18	-4	-3,87	-21.26
Iceland	+10%	+25,7 (in 2006)	2005	-15	+6.85	3,28	-15.40
Japan	-6%	+13%	2005	-25	-3.95	-7,16	-23.95
Liechtenstein	-8%	+19%	1990	-20 à -30	-16.7	-2,23	-19.91
Monaco	-8%	-13%				-7,16	-41.45
Norway	+1%	+9%	1990	-30	-23.7	10,44	-26.64
New Zealand	0%	-13% (est. in 2012)	1990	-10 à -20	-28	-28,52	-39.42
Russia	0%	-25%	1990	-10 à -15	-36.25	-38,38	-49.52
Switzerland	-8%	+0,8%	1990	-20 à -30	-29.44	-17,18	-32.16
Ukraine	0%	-3,8 (in 2004)	1990	-20	-23.04	-20,96	-35.25
European Union	-8%	-7,6	1990	-20 à -30	-35.32	-24,08	-37.81
All annex 1 countries	-5.2%						

The following graphs represent the GHG emissions per country:

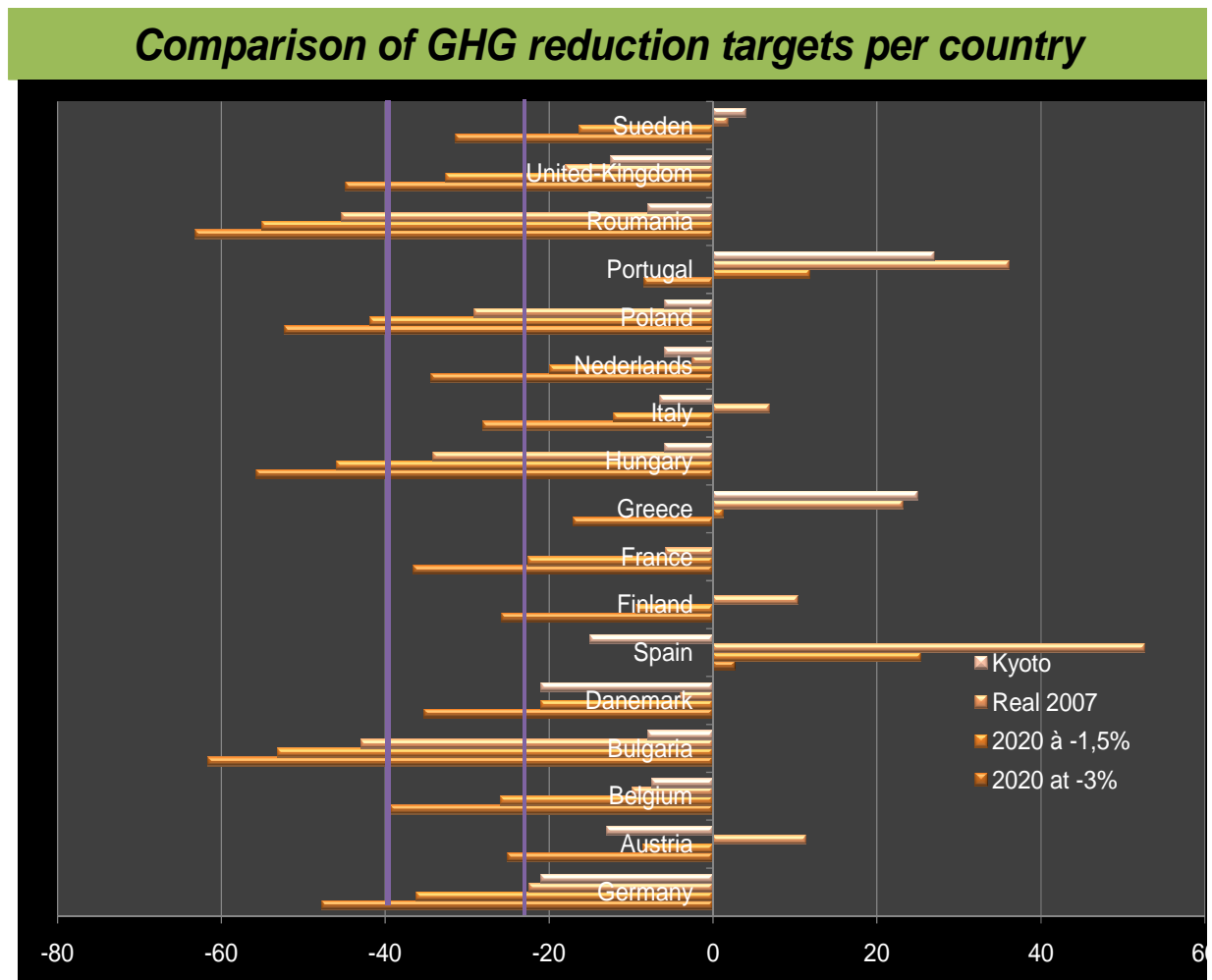
- The first graph represents EU emissions;
- The second graph represents A1 emissions.

They illustrate the following elements:

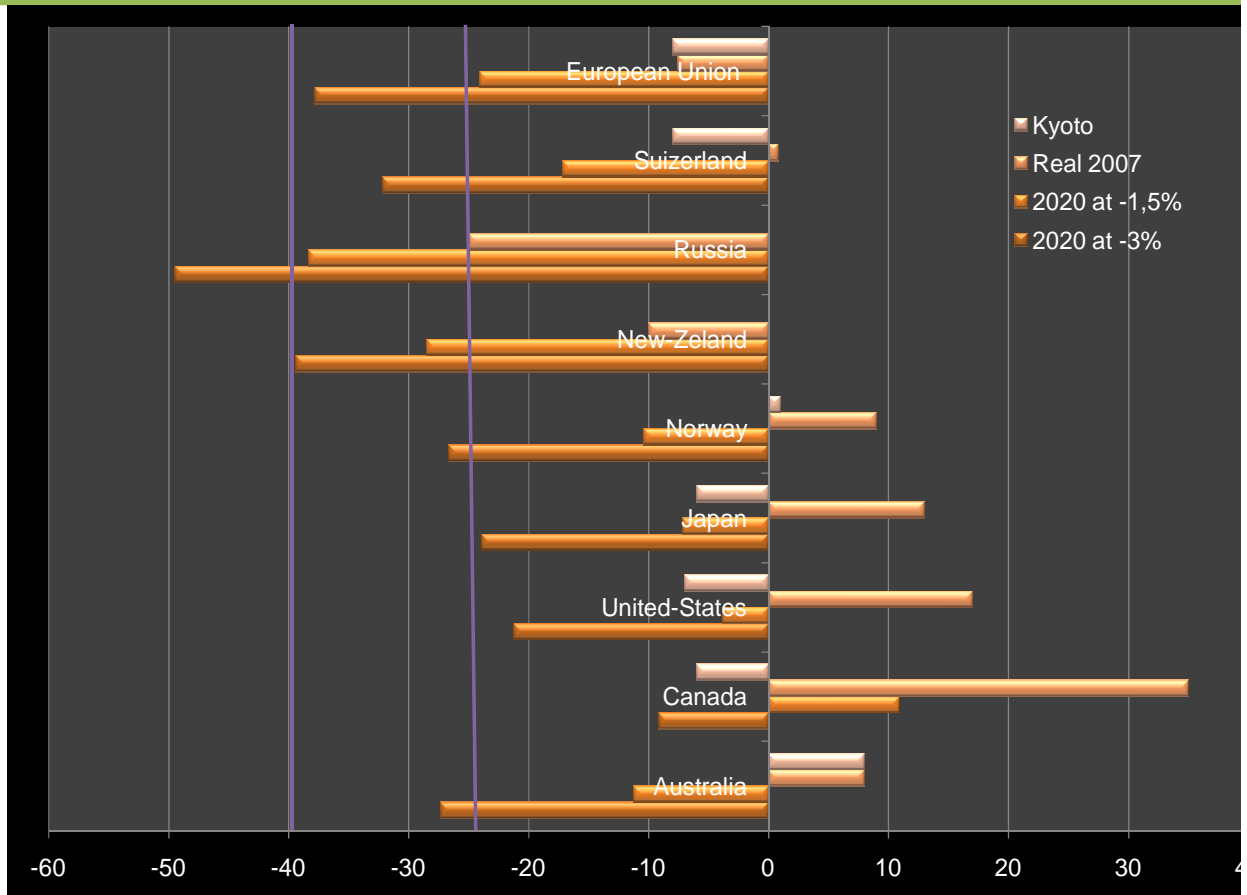
- The targets set in Kyoto,
- The figures in 2007,
- The emission reduction achieved in 2020, based on a 1.5% reduction rate,
- The emission reduction achieved in 2020, based on a 3% reduction rate.

In both cases, the emission reductions start in 2007, the year the Kyoto Protocol was effectively implemented.

The two blue vertical lines indicate the 25-40% emission reduction range recommended by the IPCC.



## Comparison of GHG reduction targets per country



The graphs and tables show that the growing gaps between the Kyoto targets and actual emission trends will be difficult to catch up. In the EU, the situation is particularly critical in Spain, Greece, Portugal, Italy, Austria and Finland. They also indicate that for some countries, the reduction rate should be 3% in order to keep up with the IPCC recommended emission path.

### 3.4 – Risks of failure and options

At this point, the negotiation process could fail: if the commitment by industrialized countries is unsatisfactory, emerging and developing countries could reject the negotiation process.

Furthermore, the slipping emissions of industrialized countries will be difficult or impossible to catch up by 2020. It is nonetheless crucial that realistic targets be adopted. Otherwise, the problem will only be pushed back in time and Annex 1 countries will lose all credibility.

Furthermore, the negotiations could become tense on the issue of Non Annex 1 countries characterized by GDPs comparable to that of industrialized countries (for example, the oil-producing States of the Gulf, Singapore, etc.) and yet, do not have constraining commitments. Indeed, other countries with lower GDPs and levels of development have constraining targets (Kazakhstan for example).

The debate will most probably heat up on the question of the level of commitment by industrialized countries. The scientists, the public opinion, NGOs and developing countries will put pressure on developed countries to compensate unsatisfactory targets with good progress and delivery on other points of the negotiations.

Possibilities of compromises are scarce:

- Give industrialized countries with slipping emissions a second additional target (2030 for example) to catch up on past emission targets since 1990. There could also be financial

penalties if the countries did not catch up by 2030. This second target could prepare for a long-term target thus giving countries the incentive needed to heavily invest in mitigation and new industrial channels.

- Some countries, such as the Philippines, proposed a shorter commitment period than 2020 with intermediate phases and a monitoring process every 4 years. In this idea, there would be a complete review of the regime end 2016. However, no matter how committed countries are to mitigating their emissions, they cannot overcome all the industrial barriers, investment, infrastructure and implementation-related constraints, and the project formulation issues.
- The time spans required to guarantee quality processes,
- Last June in Bonn, China and other countries demanded that A1 countries commit to a 40% reduction target by 2020. This target is unfeasible.

The feasible targets that could be achieved:

	<b><i>Reduction between 1,5% and 3% by 2020</i></b>	<b><i>3% reduction by 2020</i></b>	<b><i>3% reduction by 2030</i></b>
<b><i>Countries</i></b>	Russia and ex-USSR countries, east European countries, Germany, United Kingdom, France	Switzerland, Norway, Japan, New-Zealand	United States, Canada, Australia, Spain, Italy, Austria

Industrialized countries put on the table very weak targets (cf. previous tables) for the following reasons:

- The large gaps between most A1 countries' 2012 targets and current emission trends imply that the second commitment period will only manage at most to curb emissions back to 1990 levels;
- This group dynamic is not pushing countries to commit more than others, particularly since the US still refuses to ratify the Kyoto Protocol;
- The lack of progress on issues that could facilitate mitigation (i.e. cooperative R&D, technological options, financing, flexibility mechanisms) is not an incentive to make a strong commitment;
- Economic recession makes it more difficult to forecast the financial means available and possible progress.

This situation could be resolved if all countries simultaneously committed to strict yet feasible targets during the third commitment period. This solution makes sense if an effective penalty mechanism is adopted at the end of the second period.

## **4 – INDUSTRIALIZED COUNTRIES: MAIN POSITIONS**

### **4.1 – Annex 1 countries**

It is crucial to fully grasp the negotiating positions and their underlying dynamics before analyzing the technical aspects of the negotiations.

#### **● United States**

The American situation is complex and should be well understood. The Obama administration announced a complete break with the previous G.W Bush policy and the Americans came back into

the negotiation process at Bonn I. However, as yet, the American “come-back” has not led to political improvements and on the contrary, has complicated the legal situation. The decisive components of the American position are the following:

- ***The serious will to tackle climate change***

The American policy took a u-turn, based on:

- Scientific rationality: objectiveness on the facts that « the climate is warming and human activity is the cause »; conviction that adaptability and the progress in democratic societies rests on the humble acceptance of reality;
- The need to tackle climate change for security and economic motives;
- The perception that the Bush previous administration was discredited on the climate front;
- The need to take into account a growing dependence on oil in an uncertain world;
- The realization that renewable energy resources and energy savings are a priority;
- The conviction that a massive R&D effort is crucial to achieve technological progress (particularly via partnerships in the Asia-Pacific region);
- The definition of a long-term global target in the form of a global GHG emission reduction
- The will to become yet again the world’s economic leader on renewable energy and climate-mitigating technologies; and to take back the diplomatic leadership on these issues.

- ***A clear opposition to certain proposals***

- After the official and applauded come-back in the negotiations in March 2009 (Bonn 1), the US announced that they would not sign the Kyoto Protocol and that they favored a bilateral approach under a multilateral shield;
- They refused to take on a reduction target based on per capita emissions as it would imply a heavy effort for the US;
- The affirmation of national sovereignty on mitigation and adaptation policies: the legal commitments should be made at the national level;
- The need to reform North/South technology and financial transfers and better monitor/assess the implemented actions;
- They reject proposals relative to the creation of new mechanisms to increase financial support. They are in favor of reinforcing existing institutions for more efficiency.

- ***The possible commitment options***

As yet, the “Waxman-Markey” bill (*the American Clean Energy and Security Act – ACESA*) contains:

- **A national -17% target compared to 2000 emission levels: a -4 emission reduction compared to 1990 levels;**
- The development of a carbon market to achieve the target;
- The allocation of part of carbon market revenue for adaptation purposes. By 2027, up to 4% could be allocated (an estimate US \$750 millions/year);
- The bill does not shut out the possibility of connecting the US market to the EU carbon market;
- The bill requires an international agreement and a world adaptation fund before agreeing to US technology transfers.

- ***Emerging countries must contribute***

The US is very insistent on this point and would like to see a new classification of countries into three categories, based on economic development indicators:

- Developed countries: absolute reduction targets by 2020;
- More advanced developing countries: national mitigation strategies with targets based on a deviation from BAU emission trends;
- Developing countries: initiatives to tackle climate change, national mitigation strategies with no constraining targets.

The United States sees the contribution by emerging countries – future economic powers and polluters - as a key element for an agreement.

- ***The favored instruments***

The following points could be used as levers for an agreement with the US:

- Improve the monitoring of financial and technological transfers (F&TT) by developed countries to assess the impact of mitigation actions implemented in developing countries;
- The US recommends using a **sectoral approach** because it can best assess potential emission reductions in developing countries, organize the F&TT and standardize policy monitoring;
- **Intellectual Property Right (IPR) protection**: similarly to Japan and other industrialized countries, the US is convinced that IPR protection does not hinder access to clean technologies in developing countries. On the contrary, lifting these protections could create more inequalities;
- The United States and the EU support the Korean proposal to **concede emerging countries carbon credits on a sectoral basis** in accordance with voluntary national policies. This system would contribute to rapidly include non annex 1 Parties in the global energy transition;
- By giving carbon credits monetary value, the device could act as an incentive. An agreement with China on this topic could be reached, on the condition that this mechanism does not replace offset mechanisms established by the Kyoto Protocol;
- The CDM issue: the Americans want to reinforce the CDM and other flexibility mechanisms to generate more carbon credits. They are in favor of CDM quotas per country.

- ***The core issue: financial transfers***

The US acknowledges the need to increase support for the most vulnerable countries, but insists on the importance of re-assessing the scale of the contributions and the list of recipients (for example, economically-advanced developing countries could fund most of their mitigation and adaptation policies).

- ***About the legal outcome***

- The US recommend multilaterally adopting a very general text demanding national comparable actions (endorsed by national parliaments);
- The US are in favor of national mitigation action plans negotiated via bilateral economic agreements (for example, an agreement between the US and China);
- They do not want a new protocol and are not proactive in this debate;
- In any case, a new protocol would require a Congress vote: the option should be handled with precaution. Prof. Bodansky<sup>6</sup> recommends resorting to an array of small legal instruments. Could this solution suit the G77 + China and the Europeans, both of which advocate for the reinforcement of existing instruments and the Kyoto Protocol?

- ***The debate within the United States***

The American delegation remained very passive on the official negotiation front during the three Bonn meetings as American citizens got hold of the debate on climate change. Obama has to face the impacts of recession and tackling climate change appears expensive and requires changes in individual behaviors. The debate focused on the Waxman Market bill.

Since the House of Representatives has voted the bill, the latter appears more and more neutralized by the influence of industrial lobbies and opposition parties. Depending on the Senate vote in October, the American delegation will be more or less in favor of a national approach.

The idea that the US could become the leader in tackling climate change as well as guarantee world security could be an argument in favor of the Waxman-Markey Bill at the Senate.

- ***An unchanged position***

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<sup>6</sup> D.BODANSKY, "Legal form of a new climate agreement: avenues and options », UNFCCC side event, April 2<sup>nd</sup> 2009.

- The US will take a strong emission reduction commitment<sup>2</sup> for 2020 but it will be relatively insufficient compared to other countries;
- Its current financial contribution is insufficient;
- They are disproportionately demanding of other Parties considering their own contribution to the debate.

● ***Possible changes in the American position***

The US has elbow-room in the negotiations:

- Firstly, its proactive climate change policy and its acceptance of quantified targets make it possible for the US to sign the Kyoto Protocol for the second commitment period. Indeed, the US only rejects the Protocol because the nation rejects international supremacy. This argument is weak because in the case of climate change, stabilizing global warming and international relations requires an international law system acknowledged and accepted by all.
- An additional commitment to be achieved by 2030 could reinforce the country's political credibility and convince other countries to endorse stronger commitments or support.
- A big step forward on the financial issue: open to public development aid, auctioning, tax or contribution, share of proceeds (Mexican, Norwegian, Swiss proposals).

● **The European Union**

In 2008, the EU voted the energy-climate package, defining the concrete means to implement its 20 to 30% emission reduction target by 2020. Ever since, the EU has appeared paralyzed by internal debates and is little heard in the negotiations. Internal divergences include:

- The level of reduction that each member-State should commit to, considering the serious gaps in efforts achieved during the first commitment period;
- The financial contributions for developing countries that will be necessary to reach an agreement;
- The resort to emission reductions achieved in developing and emerging countries (CDM, REDD, NAMAs).
- On the issue of technology transfers, the EU's position is very vague.

The financial crisis, the beginning of the economic recession and the crisis of the European automobile industry have weakened the European commission and distracted decision-makers from the climate issue. Furthermore, the European delegations defend very discrepant interests, particularly among countries hardly ending their economic transition and strongly dependant on coal; heavily industrialized countries like Germany or Belgium; and the "green" Scandinavian countries.

The EU recently put forward the idea of « Low Carbon Development Strategies »: these national plans would contain NAMAs and be drawn up and implemented by all countries. The proposal provides a clear vision on the type of unified processes that developing and developed countries could commit to. It also provides a coherent frame for NAMAs and opens the door to no-lose targets and sectoral agreements.

The European Union is in the process of establishing climate partnerships with other Parties, of which Africa, AOSIS countries and Latin America.

● ***Points that need to be clarified***

- In the Energy-Climate packet on its post-2012 commitment, the EU does not specify the use of flexibility mechanisms (what projects? to what scale?);
- The EU has not been clear about whether it will achieve the -30% target announced in the case of a satisfying agreement in Copenhagen with offsets;
- The shape and level of financial contributions.

The EU chose to be ambitious and show the way. Japan, on the other hand, chose to adopt a less ambitious and more realistic approach

## ● Japan

At the Bonn II conference (June 2009), Japan announced its national target for 2020: a 15% reduction compared to 2005 levels, in other words, **an 8% reduction compared to 1990 levels**. This gave rise to criticism on the part of NGOs.

However, the Japanese target is one of the few that were democratically discussed within the country. Also, Japan has achieved real emission reductions since Kyoto. Its level of emissions per capita is one of the lowest in the industrialized world. This makes it very difficult for Japan to further improve domestic energy efficiency. Its increasing emissions are linked to the increasing intensity carbon (kgCO<sub>2</sub>/kWh) of its electricity production: indeed, drought periods limited the use of hydroelectricity and Japan's nuclear plants are becoming less efficient. These factors led Japan to increase its use of carbon energy.

Furthermore, Japan intended to reach the -15% target by reducing the carbon intensity of its activities/production of 33%. The target did not include offsetting. The ex Prime Minister had described the target as "*mamizu*" (clear water). Indeed, the target was feasible and calculated based on the Japanese implementation potential.

However, the new Prime Minister announced a new target for Japan early September: **-25% by 2020 compared to 1990 levels**, with a resort to carbon markets and flexibility mechanisms. Japan will confirm this ambitious target once other industrialized countries commit to comparably ambitious targets.

## ● Australia

Australia announced that it would commit to a reduction target in a 5-15% range, based on 2005 levels. The country could further commit to a -25% target if other countries make significant commitments. Australia's target strongly relies on LULUCF carbon sinks and on a cap-and-trade system. However, early September, opposition Parties votes against the carbon market bill submitted by Kevin Rudd's labor party. The environmentalist party was also opposed to the bill because it lacked ambition.

## ● New Zealand

At the beginning of Bonn III, New Zealand announced that its national target would be comprised between 10 and 20%. The NGOs criticized it for its lack of ambition.

New Zealand proposed to achieve its target using three means:

- Domestic mitigation efforts,
- The use of flexibility mechanisms,
- Resort to soil carbon sequestration.

Compliance with the target will depend on the LULUCF accounting rules adopted by the COP.

## ● Canada

Canada is the industrialized country which less complied with its reduction commitment. In 2006, Canada's emissions had already increased by 35% compared with 1990 levels although it was meant to reduce its emissions by 6%. Canada's emissions will probably keep increasing until 2012.

Emissions increased partly due to increased activities in the oil extraction sector for export purposes: the oil production increased from 92.6 Mtep in 1990 to 158.9 Mtep in 2007 (i.e. a 72% increase). Gas production increased by 70%. Also, although the carbon intensity of household activities has decreased in the past years, Canadians are consuming more energy than before.

Canada is often given the dunce's cap of Annex 1 countries. However, this judgment should be balanced out: the country increased its oil production to compensate the reduced extraction rate in the United States.

Canada announced a -20% target, compared to 2006 levels. This target will only close half the gap accumulated since 1990.

## 4.2-The increasing involvement of emerging countries

The most economically ambitious countries will also be the quickest to take action. Indeed, if the world market targets energy efficiency and clean technologies whilst promoting carbon-neutral production, emerging economic powers that export on the global markets will have an economic incentive to adapt their production modes and have a leader position on the emerging green markets. The poorest countries do not share this economic rationale because they are de facto excluded from the global markets. In the first years, sustainable socioeconomic development in developing countries will heavily rely on international aid, bilateral and multilateral economic agreements, political voluntarism and strong institutional support.

Emerging countries are proactive at the national level but also very active in the international negotiations. It is in their economic and political interest to have their actions politically acknowledged in a multilateral forum and technically implemented by international mechanisms. Emerging countries are against the American proposal to found the international agreement on national plans endorsed by national parliaments.

Some emerging countries have become OECD members since Kyoto. They are now considered as developed countries and will be, as such, committed to reduction targets during the second Kyoto period (South Korea, Turkey and Mexico for example).

### ● **South Korea**

South Korea was the first Non Annex I country to announce a national emission target by 2020. The government will choose one of the following options:

- + 8% compared to 2005 emission levels,
- Stabilization of emissions at 2005 emission levels,
- - 4% compared with 2005 emission levels.

South Korea's BAU emission path shows a 30% increase of its national emissions by 2020. Its emissions doubled between 1990 and 2005. The President Lee Myung Bak recently launched the Korean Green New Deal, to which 2% of the GDP will be allocated. The goal is to make South Korea the 7<sup>th</sup> most competitive country in term of energy efficiency by 2020.

South Korea has engaged in a crusade against climate change because of its "green growth" potential: long-term strong and clean economic growth (with the creation of 1.8 million jobs), energy security (development of hybrid vehicles, nuclear energy, renewable energy, LED light bulbs). South Korea is also anticipating the future carbon taxes on imported goods that industrialized countries may adopt and that could slow down the country's export activities. South Korea's NAMA proposal plays a crucial role in the negotiation process

### ● **Mexico**

Mexico is at the source of 1.5% of global emissions. In Poznań, end of December 2008, President Calderon announced an ambitious reduction target: 50% emission reduction by 2050 compared to 2002 levels. In Bonn, in March 2009, Calderon also announced a 50 million ton emission reduction per year until 2012, when his mandate ends. This annual reduction quota is equal to an 8% mitigation target by 2012, compared to 2002 levels. Mexico is also preparing for the launch of a carbon market by 2012. In 2007, Mexico published a national strategy to tackle climate change and Mexico City launched its sustainable development plan (US\$ 550 millions). Both aim for the development of clean vehicles, less leakage in the gas and electricity utility network and optimized oil extraction processes.

Mexico also submitted a proposal for a multilateral climate fund to be financed by all countries (except Least Developed Countries).

### ● **South Africa**

South Africa (SA) is also active on the national territory. In 2004, SA published a national climate mitigation strategy, framed by constraining regulation: protected areas, national parks, improved air quality by reducing the use of specific pollutants (Air Quality Act). The government also launched a massive scenario-building program to model emissions and socioeconomic trends up to 2050. It aims to design a national strategy focused on low-carbon socioeconomic development ((*National Strategy*

for Sustainable Development). The first results were presented earlier this year at the African Ministerial Conference for the Environment (AMCEN)'s special session on climate change in Nairobi. Also, the government decided to create a domestic carbon tax. A White Paper should be published by 2010 with a list of ready actions in the sectors of clean coal and renewable energy.

### ● **Brazil**

A small share only of Brazil's emissions is induced by energy-related consumption/production because the country depends mainly on renewable energy: most of its electricity is hydroelectric and Brazilian fuels are mainly composed of sugarcane ethanol. It contributes to climate change through deforestation and land use changes. The country implemented projects mitigating climate change and is the recipient country for 10% of CDM projects so far.

Its national plan aims for:

- A 10% decrease in annual electricity consumption by 2030;
- A strong share of renewable energy in electricity production;
- The development of bio-fuels and sugarcane production farming;
- A 70% cut in annual deforestation rates by 2018;
- A US \$21 billion protection plan for the Amazon (funded by the international community);

Brazil also submitted a proposal on how to calculate historical responsibility based on emissions since 1850. Brazil's position on deforestation is analyzed in the chapter on REDD +.

### ● **India**

India, 4th biggest GHG emitter, has an ambivalent position: on one hand, India is still a developing country because its population is mostly poor and hardly electrified. India is also seriously affected by climate change. On the other hand, India is an emerging economic power and high emitter, and highly dependent on coal for energy production.

The country refuses to take legally binding commitments and advocates for the developing world's right to development. However, India is very climate-active at the national and grass-root level. Indeed, local actions and awareness-raising campaigns are pressuring the government into taking national action.

The government is currently debating on a nation-wide solar energy program, which aims to multiply by 4 (20 GW) the share of solar energy in India's electricity production by 2020. This program would be a preparatory phase of a national climate action plan. India is also developing a "nuclear policy" and building nuclear plants.

### ● **Indonesia**

Indonesia is an emerging economy of 230 million people. Due to its high deforestation rate, Indonesia is de facto the world's 3<sup>rd</sup> GHG emitter, right behind the US and China. However, its energy-related emissions bring Indonesia back down to the 15<sup>th</sup> position with a low 2.2 Gigaton per year (2005)<sup>7</sup>. Approximately 1 Gigaton can be linked to peat bogs and 0.8 Gigaton to deforestation. At this rate, Indonesia will be emitting 3.6 Gigatons of CO<sub>2</sub> per year by 2030.

Indonesia's climate strategy is interesting: at COP 13 in Bali (2007), Indonesia adopted a National Action Plan Addressing Climate Change, prepared with strong political support and broad democratic consultations. The plan contains short-term actions (2007-2009) and long-term actions (2025-2050). It was structured using a crosscutting approach covering all economic sectors (agriculture, forests, industry, energy, tourism, infrastructures, etc.) and involves the entire administration (for tax and investment policies, communication plan, institutional organization, decentralized actions, etc). The document was then transcribed into a series of operational action plans by the Planning ministry. The government is currently working on sectoral "roadmaps". An interdepartmental committee was created this year to organize and monitor the internal governmental negotiations.

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<sup>7</sup> McKenzie, September 2009

The government is also in the process of creating financing tools to stimulate the sectoral policies that will act as recipients for the international funds for climate change (ICCTF, Clean Technology Fund, Low Carbon Fund, MTDP, etc.).

In 2008, Indonesia started discussions with financial backers on how to implement its national policy and has already been granted access to substantial loans.

Indonesia's main aim is to reduce emissions by tackling deforestation. This is hindered by the economic potential of palm oil plantations and the pulp and paper industry. A number of projects supported by NGOs and backers and Indonesia's membership in the Forest Carbon Partnership Facility- the precursor REDD+ fund- are however successful in overcoming this economic barrier.

## ● **China**

### ○ **Domestically tackling climate change**

Chinese emissions (currently 1/4th of global emissions) could double by 2030 according to BAU emission trends. Although China's official position in international politics appears uncompromising, the country is nonetheless proactive at the national level.

In 2007, China published its first national climate action plan and launched a national program on energy efficiency. China used the decrease in production during the recession to close its most inefficient coal plants. China also funded programs for the local dissemination of low-energy light bulbs. The mere replacement of incandescent light bulbs with new generation light bulbs could reduce Chinese emissions by 8%. China is also considering the creation of a cap-and-trade carbon market. Obviously, China's mitigation strategy is economically rational: the USD 17 billion-worth renewable energy sector employs 1 million Chinese citizens. The country aims for a) a clean coal-fueled development at the lowest cost, and b) a leader position on the clean technology market.

#### **Zooms: China's national targets for 2010**

In its 11th Quinquennial Plan (2006-2010), the Chinese government set energy intensity targets (energy consumption per GDP unit). The plan tries to balance out economics, the environment and social issues.

- Energy intensity reduced by 20% compared to 2005;
- 15% primary energy consumed should be produced with renewable energy;
- 30% reduction in water consumption per unit of value added in the industrial sector;
- Stabilize irrigation at its current level;
- 60% increase in recycling of industrial waste;
- 10% reduction in emissions induced by majors pollutants;
- Conservation of 20% of the forest cover;
- Monitoring of GHG emissions;
- 950 Mt CO<sub>2</sub> saved by 2010.

### ○ **What is China's position regarding the post-2012 regime?**

On the political level, China signed the leaders' declaration at the Major Economies' Forum (MEF) on energy and climate (Aquila, July 9<sup>th</sup> 2009). The declaration highlights the need for world emissions to peak rapidly. China associated itself with 37 other countries to demand that A1 countries reduce their emissions by 40% by 2020. At the UN general assembly on climate change end of September, China announced that it would substantially deviate its emissions from the BAU trend by 2020 and do so partly by reducing the carbon intensity of each GDP unit. The question remains whether this commitment will be national or included in the Copenhagen agreement.

Here are China's key points in the international negotiation process:

- ***Common But Differentiated Responsibility (CBDR): no legally-binding commitments for developing countries***

China has an ambivalent position, similar to India's: nationally, the country emits comparably or more to A1 countries. Yet, China will not question its place among non annex 1 countries because its population is still developing. China also plays a predominant role within the G77+China, the political union of the developing world. China's position is justifiable: as a recent emitter, the State fears that it will be confused with historically industrialized countries and consequently, requested to share the historical responsibility of climate change.

In fact, defining China as an emerging country is a shortcut. China is plural: the industrial zones on the coast have nothing in common with the isolated and poor rural zones. Per capita Chinese emissions are still very low compared to that of developed countries.

China rejects its title as the world's first emitter and is in favor of a system that counts emissions at the consumption stage rather than the production stage: indeed, China manufactures goods mostly for Western consumers.

The emerging economic power perceives constraining targets as a hindrance to its socioeconomic growth and consequently, to its social cohesion. China has kept a steady position since Bali: there shall be no legally binding targets for non Annex 1 countries. Furthermore, any national commitment will depend on the development guarantees provided by developed countries and the support in terms of technological transfers.

Small Island Developing States (SIDS) and Least Developed Countries (LDCs) have pleaded, in the name of the "polluters pay" principle, for a review of China's status as a non-annex 1 country.

- ***Economic growth and national interests are a priority***

China will not make any sort of commitment at the international level unless it guarantees economic growth (i.e. unless it multiplies China's GDP by 4). The country will not give up on the energy security guaranteed by its coal reserves. China is opposed to a carbon tax on imported goods proposed by some industrialized countries because it would create unfair competition between countries mitigating their emissions and emerging countries with no legal obligation to reduce their emissions.

- ***Setting legally-binding commitments for Annex 1 countries***

Committing developed countries to ambitious mid-term reduction targets (-25 to -40% by 2020 compared to 1990 levels) is a prerequisite to setting global long-term targets. This target would remain negotiable after Copenhagen. China will not act unless the US commit to a legally binding agreement.

- ***Technology transfers***

China has focused the negotiations on technology transfers as it considers it to be a core issue for developing countries. However, a number of developing countries demanded that the negotiations focus on financial support and adaptation. The country is also engaged in bilateral negotiations with the US on the potential transfer of the Carbon Capture and Sequestration (CCS) technology. China also demands a review of the Intellectual Property Rights regime.

- ***Financial support for developing countries***

China also supports the G77+China proposal to create a multilateral fund, financed by 0.5 to 1% of GDP in A1 countries. On the other hand, the Mexican proposal for a multilateral fund is out of the question because it involves contributions by *all* countries.

- ***Mechanisms in the new agreement***

As the CDM's major recipient and as the world's first Certified Emission Reductions (CERs or carbon credits), China is in favor of the development of the Clean Development Mechanism (CDM) and its compensatory system. The country is cautious regarding the NAMA concept and could accept the mechanism if a) it meant a voluntary involvement of developing countries and b) it guaranteed significant funding.

In a nutshell, China has a very clear political line: the country will proactively commit to mitigating climate change if it consolidates its status as an industrial power, namely through technology transfers. Furthermore, the Chinese proposals reflect the will to act according to international rules.

### 4.3 – The negotiating positions of developing countries

Climate sovereignty can only be international. As said before, climate change is the first issue in history to require international solidarity: no single country can choose to be a “free rider”. Indeed, a State’s both positive and negative actions will impact other States. Global climate stabilization can only be achieved through a commitment by all countries and individuals, and based on fairly shared targets.

#### ● **The G77 + China**

The G77+China is the non-annex 1 countries’ negotiating group. It unites emerging countries, oil-producing countries, Least Developed Countries (LDCs), Small Island States (SIDs) and the Africa Group. These sub-groups either align their positions with the G77+China or speak for themselves.

The G77+ China is faced with the difficult task of unifying the positions of its 137 members in order to reach a common position and change the course of the negotiations. Internal cohesion will become incrementally crucial as the negotiation process becomes increasingly tense.

The G77 tends to adapt its common positions to the major claims advocated by its member States or groups, thus ensuring cohesion:

- The G77+China refuses any reclassification or distinctions among developing countries, based on economic criteria;
- The G77+China acknowledges national mitigation actions by developing countries;
- The G77+China demands that industrialized countries commit to a minimum 40% emission reduction target by 2020 (some sub-groups demand an even higher target);
- The G77+China is insistent on the historical responsibility of industrialized countries towards developing countries. This responsibility should be translated into financial and technological support for mitigation and adaptation actions by developing countries;
- The G77+China proposed the creation of an enhanced financial mechanism for technology: the fund would rely on the implementation of commitments by annex II countries (annex 1 countries with financial obligations). It could be partially funded by levying 0.5 to 1% of the industrialized countries’ GDP<sup>8</sup> (US \$170 to 340 billions by 2020).

The G77+China is faced with a challenge: its impact on the negotiations and on industrialized countries is directly correlated to the internal unity among least developed, developing and emerging countries. However, to reach an agreement, the G77 will need to convince its 137 members that they must engage on the path of a low-carbon development.

#### ● **The Africa Group**

At the African Union’s 12th session in February 2009, the heads of State had decided that:

- The international mechanisms leading up to a carbon market should provide Africa with financial compensation for the impacts of climate change;
- Africa should be represented by one delegation only, with the mandate to ensure that the continent be provided with sufficient resources in the next agreement.

At the African Union’s 13th session in June 2009 (Libya), the States created the CAHOSCC (*Conference of African Heads of State and Government on Climate Change*)<sup>9</sup> and gave it a mandate to unify African positions up to Copenhagen. The Africa Union appointed the Ethiopian Prime Minister as the head of the pan-African delegation. The interactions between this newly appointed delegation and the Africa group, the official negotiating group, are not clear yet.

The following political messages were adopted:

<sup>8</sup> *Tableau 1. Transfert financiers Nord/Sud : des propositions éparées.* Tiré de : Le sommet de Copenhague tiendra t-il ses promesses ? La note de veille n°149, Centre d’analyse stratégique, septembre 2009

<sup>9</sup> The CAHOSCC is composed of the Republic of Algeria, Republic of Congo, Republic of Kenya, Republic of Mauritius, Republic of Mozambic, Republic of Nigeria, Republic of Uganda, the AMCEN chairperson, the African Union commission chair, and the technical negotiators of the member States.

- ❖ Developed countries shall reduce their emissions by 40% by 2020;
- ❖ Developed countries shall reduce their emissions by 80% by 2050;
- ❖ Developed countries shall transfer **US\$ 200 billions** towards developing countries by 2020 to implement mitigation actions (reforestation activities in particular);
- ❖ Developed countries shall transfer **US\$ 67 billions/year** towards developing countries for adaptation needs;
- ❖ Intellectual Property Rights need to be more flexible regarding green technologies that could help Africa rapidly build low-carbon infrastructures.

• ***African Partnership Forum (APF)***

At a special session on climate change on September 3rd in Addis Ababa, the APF focused the debate on Africa's concerns and expectations with regard to the next agreement. Sir Nicholas Stern made recommendations for the coming agreement from an African perspective.

The APF published its common position on the next international agreement on climate change and confirmed that a pan-African delegation would be present at the next negotiating meetings. The APF's approach is firm and determined: Africa could become a recipient for the developed countries' mitigation efforts if these actions contribute to the continent's low-carbon development. However, if the agreement is not satisfactory, Africa will walk out of the negotiations.

**APF's key messages for each pillar of the Bali Action Plan (BAP)**

***Mitigation***

- ❖ An ambitious quantified commitment by developed countries to reduce their emissions;
- ❖ A stabilization of climate change below a 2°C temperature increase compared with preindustrial levels;
- ❖ The agreement should provide sufficient funds to reduce emissions induced by deforestation and forest degradation;
- ❖ The Copenhagen agreement shall support Africa on its low carbon development path, and contribute to develop renewable energy.

***Adaptation***

- ❖ Africa does not contribute to climate change and yet, each sector suffers from its impacts. The incremental cost of adapting to climate change should be the responsibility of the international community;
- ❖ Adaptation should become a priority issue in the negotiations;
- ❖ Adaptation and development are interlinked: adaptation strategies must fit into the national and sub-national development plans, and into the sectoral policies;

***Technologies***

- ❖ The agreement should provide support for the development, the dissemination and the transfer of technologies, and provide the required capacity-building for the development and use of new technologies;
- ❖ The negotiations should focus on the forests, on land use, renewable energy resources and energy efficiency;
- ❖ Africa is in favor of market-based policies to disseminate technologies: removal or reduction of tariffs or non-tariffs barriers to promote the dissemination of low-carbon technologies.

***Finance***

- ❖ A reform of the carbon market mechanisms to make their access easier for Africa and to extend the CDM;
- ❖ The need for additional financial resources for adaptation and mitigation;
- ❖ Financing should take into account long-term development priorities and aim for minimal transactions costs and quick decision-making procedures for rapid access to funding by developing countries.

From an African perspective, financing is the core issue because it is a crucial prerequisite to engage on the path of low-carbon development and to develop the means to adapt to climate change.

## ● **Developing countries nationally tackling climate change**

### ○ **Costa Rica**

Costa Rica announced that it would be carbon neutral by 2020. It is most probably the only developing country that successfully stopped deforestation and increased its forest cover. This success was made possible by national will to conciliate forests, biodiversity and economic development. It rests on a unique payment system for environmental services.

### ○ **Mauritius Island**

Maurice Island launched a sustainable development policy ("Mauritius- Sustainable Island") in 2008, under the Prime Minister's impetus. The policy aims to develop the adapted infrastructure, programs and means in the sectors of energy, transport, waste, tourism and biodiversity to ensure a harmonious and sustainable development. Mitigation and adaptation will be integrated in the process step by step thus building up to become a climate-resilient national strategy for economic development. An interdepartmental organ was consolidated to decide on the priorities. A national fund is being established and other financing instruments are being developed to collect public and private funds. The policy and its implementing tools have channeled financing via the State and private banks.

### ○ **Vietnam**

Vietnam adopted a national plan to tackle climate change end of 2008 (National Target Program to Respond to Climate Change – NTP.RCC). The government then adapted the plan to each sector and to each type of action. The State also established an interdepartmental coordination process. This attracted backers to fund the implementation of the national strategy.

## **5 – THE MAIN NEGOTIATING POINTS**

During the three meetings in Bonn this year, Parties negotiated elements under each pillar of the Bali Action Plan (BAP).

- Adaptation: *article 1 c) of the BAP*,
- Finance and Technology (two separate topics in the negotiating text from now on): *article 1 e) of the BAP*,
- Mitigation: *article 1 b) of the BAP*
- Shared vision: *article 1 a) of the BAP* which is one of the most conflicting issues among countries.

### **5.1 - Adaptation**

#### ● ***Acknowledging the importance of adaptation***

Prior to the creation of the Adaptation Fund, the issue of adaptation was not seriously discussed. Since then, the issue has gained increasing importance:

- Due to the increasing number of climatic events: floods in Bangladesh and in Burma, the heat waves in Europe and Australia, the Katrina cyclone in New Orleans... these natural disasters affected the public opinion and illustrated the growing vulnerability of rich and poor countries;
- The need for adaptation has become a main issue in the negotiations for the most vulnerable countries, particularly for the Small Island States, the low-lying coastal countries and the arid countries (namely in the Sahel region).

All countries now agree that adaptation should be a priority in the new agreement and is a major factor of equity.

- ***An often underestimated issue***

Although adaptation was put forward a few years ago, little progress has been made. The issue clearly interests the countries affected by climate change more than countries that will be made to pay for adaptation. Developed countries are focused on mitigation policies more than adaptation policies in developing countries because mitigation is beneficial for all countries as it contributes to stabilizing the climate change. Adaptation on the other hand addresses a social concern and brings relief to the affected country only.

The debate could turn sour if words don't lead to action and if financial resources remain scarce. Unless Parties agree on allocation criteria, there could be no financial distribution.

If the adaptation issue does not meet a satisfactory outcome, it will widen the gap between North and South. Adaptation revives the debate on historical responsibility. A number of countries are victims and their territories threatened by a change in climate that they are not responsible for. For a few years now, Parties have threatened that without sufficient support on adaptation (i.e. the financial means, and the criteria for distribution and contributions), they would not sign the global agreement.

Nevertheless, the technical groups working on the adaptation pillar are paralyzed by the lack of financial contributions.

- ***Prioritizing actions***

Adaptation covers a number of different issues at different levels. Thus, it is imperative to identify the situations, the eligibility criteria and the type of support needed for the following actions:

- Emergency aid in case of a natural disaster,
- Reconstruction after a natural disaster,
- Preventing natural disasters, particularly by investing in land management,
- Capacity-building and awareness-raising to reduce the communities' vulnerability and develop their self-protection capacity,
- Technical changes which could reduce vulnerability (with regard to heat waves, floods and climate-related extreme events,
- Building coastal protections against rising sea levels,
- Cautions water management,
- Taking into account gender inequalities,
- Adapting the buildings,
- Transforming farming practices,
- Acknowledging and taking into account the specific vulnerabilities of indigenous communities.

Adaptation projects should be implemented using ancestral and indigenous know-how. Adaptation needs vary greatly from one country to another and do not solely depend of vulnerability factors but also vary according to the level of development, the geographic conditions, and the type of economical activity.

- ***Financing in countries with serious adaptation needs***

- To build up institutional capacity,
- To integrate adaptation in low-carbon development strategies,
- To involve the local and sub-national levels (proposal made by Senegal and SIDS),
- To create regional centres for adaptation and meteorological forecasting.

- ***Supporting which countries?***

This is a crucial question in the negotiation process. The criteria defining eligibility of a country to priority funding for adaptation will be decisive for the agreement. The following issues need to be resolved:

- Specific support for the most vulnerable and least developed countries,
- The type of support for other developing countries,

- The type of support for countries with low-adaptive territories/economies.

● **Financial contributions by donor countries**

The level of financial and technological transfers for adaptation and mitigation will be decisive elements with regard to the agreement and commitments by developing countries. The following need to be defined:

- Which countries will fund adaptation and how to compare efforts?
- The use of National Action Plans for Adaptation (NAPAs) in the new agreement and what should be done with NAPAs that have not been implemented because of insufficient funding,
- The creation of an insurance mechanism for climate change-related disaster.

● **Estimating the cost of adaptation**

In the past few years, a number of organizations have attempted to assess the cost of adaptation and have come up with extremely discrepant numbers. The gap in values could be linked to:

- Different definitions and delimitations of adaptation,
- The difficulty to separate costs and extra costs.

UNDP	86 billion \$/year
World Bank	9-41 billion \$/year
UNFCCC	28-67 billion \$/an
Oxfam International	50 billion \$/an

**Estimating the cost (\$US billion per year) of adaptation and mitigation and the possible sources of funding <sup>10</sup>**

AUTHOR OF PROPOSAL	MITIGATION	ADAPTATION	TOTAL	FUNDING SOURCES
UNFCCC	9 to 48	28 to 67		North/South transfers. Global deficit estimated at: 245 billion USD in 2030
<b>FINANCIAL CONTRIBUTION REQUESTED</b>				
African Union	200	67	267	North South transfers
G77+China			From 170 to 340	0.5% to 1% of GDP in industrialized countries
India			340	1% of GDP in industrialized countries
UNFCCC			300	A global amount
<b>PROPOSED CONTRIBUTIONS</b>				
United States (**)			21.4	American financial transfers with international offsets
Mexico (Green Fund)			10	national contributions
United Kingdom			100	North/South transfers
France			200	North/South transfers
EU			N/A	Development aid
UNFCCC (at COP 15)			10	Global amount

<sup>10</sup> Adapté de *Transfert financiers Nord/Sud : des propositions éparses*. Tiré de : *Le sommet de Copenhague tiendra-t-il ses promesses ?* La note de veille n°149, Centre d'analyse stratégique, septembre 2009

Annual transfers from now up to 2020, en billion USD: (\*) proposals quantified based on IMF projections up to 2014 for the G7 (WEO 2009); (\*\*) numbers based on price/quantity projections by the EIA (2009)

## 5.2 - Financing

Financing will be the decisive debate in the negotiations: money enables actions and can be used as compensation.

The debate on financing interlinks a number of questions:

- What types of actions imperatively require financial transfers and on what scale?
- What is the share of public and private resources?
- What role should the carbon market play?
- How to make up for the difference in the cost of carbon depending on the actions? How to avoid a focus only on profitable actions?
- What decision-making processes should be used for public funding?
- What are the mechanisms required to monitor the money transfers and uses?
- What are the conditions of trust needed to attract private money?

### ○ **The funds on the table**

At this stage of the negotiation process, the following elements have not been seriously discussed:

- The financial contributions put on the table by developed countries to support developing countries (mitigation, adaptation, technology transfers...);
- Financials sources to provide predictable support: assessed contributions, taxes, financial mechanisms and private investments...).

The two questions are interlinked. Since the first meeting in Bonn in April 2009, the negotiations have not made progress on either of those issues.

The negotiations on these issues will probably not seriously begin until Copenhagen. A last minute "might is right" agreement could end up being very inequitable.

A solution could be a simple tax (based on the GDP or emissions), an auction or a deduction, using a clear and homogeneous rule.

### ○ **The share of public and private funds**

The debate has focused on the share of both public and private funds. This has led to a predictable role-playing:

- The most demanded contributors advocate for the market,
- The technical experts highlight the fact that the creation of new sectors, the monitoring, etc cannot be handed over to the private sector,
- The recipient countries demand predictable and stable funds, hence public,
- The countries with the most urgent and strong needs are more pragmatic: they are not against private funding because the public financing will not suffice,
- The most demanding Parties requested that the agreement state the amounts of public finance that will be delivered, since the market is unpredictable. Also, historically responsible countries must pay off their debt and involving the carbon market would be a way of dodging their responsibilities.

The question is how to optimize the use of the resources available and not so much to select the « best » one. It is more an issue of governance.

### ○ **Priority scale between public and private interventions**

This priority scale contributes to simplify the debate:

- The public sector should fund the structuring actions that cannot be quantified in terms of emission reductions;

- It is imperative that the private sector fund the profitable actions which otherwise, would “waste” tax money;
- An array of options exists in between these two funding options: depending on the national funding capacity and needs, actions will require more or less private funding.

Each financial resource’s characteristics, and pros and cons should be closely analyzed.

- ***Issues of public funding***

- Funds are allocated based on a number of pre-requisites,
- It takes time to collect the money from donor countries,
- The administrative processes are long and complex for multilateral resources.

- ***The pre-requisites before involving the private sector***

- The institutional and legal framework founding the national policies,
- Legal and contractual security on each project, and the reliability of refunds,
- Trust among stakeholders in the projects (contracting authorities, professionals, financials, consumers...),
- Structured projects to attract funds.

- ***Options to attract public and private funds***

- The role and the scale of development aid in the global financing;
- The role of the UNFCCC: legal framework or financial framework;
- The proposal for a “green air levy” (Bangladesh): tax on flight tickets and more broadly, on air and sea fret emissions;
- Use the money from penalties (in the case of a failed financial commitment);
- Other forms of public aid: grants or loans;
- Funds from the UN or other international organizations (Global Environmental Facility, World Bank...)
- Use the revenue from auctioning Assigned Amount Units (AAUs);
- A tax in proportion with a country’s emissions/GDP;
- LDCs recommended financing mitigating with an extended share of proceeds (2%) on all flexibility mechanisms and with a tax on flights (except those going to or coming from an LDC). The Philippines requested the extension of the share of proceeds up to 8%/
- Extend the carbon market;
- Involve the private sector;
- Develop Public Private Partnerships.

- ***Positions regarding financing options among industrialized countries***

**The Swiss proposal: a universal carbon tax**

Switzerland submitted a proposal for a per capita tax for any emissions beyond a yearly 1.5t CO<sub>2</sub> threshold. Indeed, 1.5 is the per capita emission level required to achieve a 50% cut in emissions by 2050. The Swiss proposal set the tax at USD 2/t CO<sub>2</sub>, in order to levy USD 18.4 billion for a multilateral adaptation fund.

**The Norwegian proposal: auctioning Assigned Amount Units**

In 2008, Norway recommended deducting 2% of emission permits to finance adaptation. This proposal is for now rejected by most Parties because it involves an automatic “levy” on carbon trading among industrialized countries. Norway submitted its proposal without prior estimations of the financial flow. The negotiating process could evolve and make it a valid option again.

**The Philippines** proposed a 10% share of proceeds on transactions on flexibility mechanisms and carbon trading markets. These 10% would be allocated to the adaptation fund.

**Colombia** proposed a carbon tax on A1 countries' goods and services and a 4% share of proceed on Joint Implementation activities in addition to the current share of proceeds on flexibility mechanisms.

#### **The Mexican proposal for a Global fund for climate change**

One of the main proposals is the Mexican global fund for climate change. It recommends channeling funds via a mechanism directly linked to the UNFCCC, governed by both donor and recipient countries. All countries, except LDCs, would contribute. The fund would deduct 4% of the financial contributions: 2% of which would go to the adaptation fund and the other 2% would be transferred to the technology fund (to-be-created).

### **5.3 – Compliance and penalty mechanisms**

At this stage of the negotiating round, the issue of compliance and penalty is taking increasing importance for a number of reasons:

- It is now clear that a number of A1 countries will not achieve their Kyoto commitment by 2012 and have even increased their emissions since 1990. This has led countries to propose weaker targets for the second period rather than accept stronger targets to “catch up” the failed targets. This “free-and-easy” attitude has weakened the legally binding dimension of the commitment and destabilized the Kyoto equilibrium.
- To ensure compliance with financial provisions from North to South (required by the Convention and the Protocol), the Bali Action Plan mentions the need to establish MRV (Measurable, Reportable, Verifiable) mechanisms.
- The financial crisis and the mistrust in sophisticated financial mechanisms have led Parties to request more MRV on carbon finance.
- The Bali Action Plan included the need to design credible procedures to monitor emission reduction actions and MRV the financial transfers. This traceability of actions is a pre-requisite to ensure comparability and equity in levels of actions among countries.
- Some of the new mechanisms proposed require elaborate calculations and monitoring procedures (REDD + in particular).
- Compliance is crucial if climate actions also take place at sub-national levels.

Furthermore, the penalty procedure defined by the Kyoto Protocol is unfeasible: it implies an additional 30% target for the second commitment period if the country has not reached its first period target.

Submissions to reinforce compliance rules recommended financial penalties for Annex 1 countries that did not comply with their legally binding reduction commitments. The revenue generated by the penalties would go to the Adaptation Fund (supported by Colombia).

This raises a serious issue. As mitigation commitments become more crucial, discrepancies will increase between countries that will reach their targets and countries that will not. Climate negotiations, UN penalty mechanisms and the World Trade Organization (WTO) will need to converge in a common regulatory and economic sanction mechanism.

### **5.4 – Technology transfers and capacity-building**

The debate on technology transfers has made very little progress compared to other negotiation points. The definition of “technology transfers” varies from one country to another, and evolves very quickly, due to the rapid development of Internet. The discussion must not to end up with a simple list of technologies. The debate should also focus on the barriers that limit access to technologies in developing countries.

The issues discussed are the following:

- Insufficient academic and professional training to develop the required skills;
- The lack of specialized research institutes;
- Missing links in the industrial and technical channels, particularly the implementation and maintenance links;
- The lack of companies solid enough to ensure technological development;
- Insufficient openings to disseminate a technology;
- Project at a disproportionate scale compared to national needs;
- No contracting authorities (both public and private) able to handle the risk of first operations;
- The lack of public and private finance to fund these projects;
- The issue of accessing patented technologies.

Developing countries were requested to submit a Technology National Assessment (TNAs) to identify the technological needs and barriers. However, the TNAs published were not specific about the difficulties and mainly made a list of the needed technologies.

The recurring questions that imperatively need an outcome are the following:

- The issue of Intellectual Property Rights (IPR): according to a number of (industrialized) countries (US, Canada, Australia, and Japan), IPRs do not hinder access to technologies. According to the G77, IPRs are firewalls. Positions have become very tense on this issue;
- The issue of investment in the Carbon Capture and Sequestration technology: the issue is particularly crucial for coal-relying countries (such as China, South Africa, Australia);
- The role of TNAs and plans preparing the implementation process;
- The issue of capacity building: on what scale and what kind?
- The financing issue.

The issue of technological transfer should not be handled using a statistic-based approach. It must be interlinked with R&D on an array of technologies and with research assessing technological needs in developing countries.

The following proposals are on the table:

- Multilateral Technology Action Fund (G77+China)
- A system comparable to the TRIPS agreement (designed to facilitate the transfer of [patented] molecular science for vital drugs towards poor countries)
- Compulsory licensing: the exceptional yet obligatory removal of a patent;
- Facilitative mechanism for technology transfers;
- Regional cooperation via regional technical centers;
- Regional centers of excellence to model climate changes, identify long term impacts and build warning systems;
- A technology chapter in the Low Carbon Development Strategies (LCDS proposed by the EU);
- Extra support for small and medium enterprises;
- Develop and disseminate indigenous technologies (proposal by Africa Group).

• ***Countries have very discrepant demands and needs***

Each developing country has its demands and needs with regards to technology transfers, depending on the territory's physical and climate characteristics, the availability of renewable energy, socio-cultural traditions, etc. Not all countries need costly and complex technologies: for example, many African countries need basic technologies, such as solar cookers to mitigate excessive biomass consumption. The international negotiating forum is facing the difficult task of designing a mechanism

or an institution flexible enough to handle and address very discrepant technological demands in a comparable manner. Should China receive as many technologies/as much technology as Africa? Is equity based on the financial value of the technologies transferred, on the number of transfers or on the number of technologies transferred? Are technology transfers designed to massively disseminate a small number of technologies and in this case, on what ground should these technologies be selected? All these questions need to be addressed for the debate to go forward.

- ***At stake: capacity-building and training***

Capacity-building activities have so far focused on training negotiators for the international negotiating process and on the administrative preparation of CDM projects.

Implementation processes lack capacity. The TNAs could provide information on the needs for training and skills in each channel.

- ***Access to patented technologies***

Access to patented technologies is a crucial stake for developing countries because R&D on clean technologies is costly and as yet, focuses on cost-efficient technologies only. In the private sector, innovation tends to primarily address the needs of industrialized countries. At Bonn III in August, Parties discussed access to patented technologies but positions on the issue have not evolved:

- The G77+China demands a revised IPR system that gives developing countries access to technology transfers and to a clean development;
- The US rejects the need to change the IPR system because on the contrary, it stimulates research, innovation and private investment.

## **5.5 – Mitigating GHG emissions**

Discussions regarding emission reductions have made progress since the beginning of the year.

A small number of options have emerged:

- Emerging countries appear disposed to take action to curb their emission trends but refuse any legally-binding commitments
- The Clean Development Mechanism (CDM) is insufficient support for developing countries to achieve the actions they need.
- The discussion has focused on the recent « Nationally Appropriated Mitigation Actions » (NAMAs) proposal. The NAMA concept consists in the submission, organization, financing and implementation of actions with greater impact than the CDM. If countries generally agree on the NAMA concept, they tend to define the concept differently.

The post-2012 regime should demand that (in addition to Kyoto mitigation commitments by developed countries) all countries draw up NAPAs and NAMA programs in a low-carbon and climate-resilient perspective. The issue is not whether these national plans should be legally-binding or not: indeed, their content would be extremely flexible and variable.

Involving all countries in this system would guarantee access to financial support for all countries and ensure that financing means focused on development projects. It would also enable developing countries to gain international acknowledgement for their past and future mitigation actions.

- ***NAMAs: the options regarding their definition, management and financing***

The NAMA concept is very vague as yet, and countries have not come to an agreement on the definition. The current discussions assume that NAMAs will exclusively regard non-Annex 1 countries. NAMAs are perceived by developing countries as voluntary actions to earn financial and technological support from industrialized countries. Most developing countries (South Africa and Algeria in particular) acknowledge the relevance of the NAMA concept, but will only agree to it if it is directly linked to real, sustainable, predictable and sufficient financial support from industrialized countries.

- **Outlining NAMAs**

The perimeter issue raises a number of questions: Should NAMAs be a series of juxtaposed actions or a global program of actions? Should NAMAs be discussed during contact groups on the sectoral approach? In other words, should NAMAs be programs?

China defines NAMAs as specific actions, without a structuring framework. Other countries perceive NAMAs to be complete national programs with clear priorities identified at the national level in order to optimize the use of financial contributions by developed countries. Japan perceives a national plan to be the *outcome* of a NAMA.

The debate will also need to decide on governance: countries planning and implementing NAMAs should have a say on their content and their priorities; financiers should be solely involved in the debate regarding the actions that require funding. The debate will also need to settle on the level of action acknowledged by the international community. On this issue, Senegal submitted a proposal to acknowledge sub-national actions. Is the idea of a worldwide NAMA that would structure a global sector receivable by all Parties? In this regard, should NAMAs be grouped according to their similarities or according to the funding option used?

### ○ **Options for NAMAs**

The main options are the following:

- ***Stand-alone actions***

These actions would be similar to the programmatic CDM projects (a group of individual actions with estimated GHG emission reduction) and receive private or public funds.

- ***More global actions impacting a sector or an economic channel***

These actions could be grouped into programs with a global mitigation target for each sector. This approach could facilitate the assessment of GHG emissions reductions, costs and international comparability. Japan and Korea in particular support this approach. According to Japan, emerging countries could commit to carbon intensity targets using NAMAs.

- ***National programs***

This option implies national NAMA programs, in other words, national mitigation programs. These programs would be on a voluntary basis and would hence, not involve constraining emission reduction commitments.

Choosing among these options will need to be done pragmatically. A national program option appears complex: it would require the implementation, simultaneously, of actions and funding. It also implies the international negotiation of national policies, which could be perceived as an attack to national sovereignty.

- ***A multi-option system***

South Korea established three categories of NAMAs:

- Unilateral NAMAs that countries would directly implement themselves, using national capacities and financing,
- NAMAs with international public support: UNFCCC contributions, multilateral and bilateral financing,
- NAMAs supported by the carbon market.

- ***Country proposals regarding NAMAs***

Parties have made a number of proposals on NAMAs and how to interlink NAMAs with other mitigation mechanisms:

**Proposal by South Africa:** NAMAs would be individual actions, group of actions or programs of actions with different shapes: sustainable development policies and measures (SDPAMs), programmatic CDM, no-lose sectoral targets... This proposal clearly highlights the need to favor programmatic approaches in order for all countries to negotiate with financiers according to their priorities. South Africa recommends mixing financing options accordingly with each project's economic terms (public development aid, market mechanisms, national savings, private sector).

**Proposal by Panama, Paraguay and Salvador:** NAMAs should be voluntary contributions. They could be aggregated measures, policies and programs. NAMAs could be tools for developing countries, enabling them to engage on a low-carbon path to development. Emission reductions achieved by NAMAs could be sold on the carbon market to help developing countries achieve their development goals.

**Proposal by Australia:** NAMAs would be grouped into “national schedules”. They would enable a commitment both comparable and differentiated for all countries. NAMAs could be prepared for implementation before the agreed outcome was signed and then be legally binding. They would contain mitigation actions and emission paths.

**Proposal by the Africa Group (submitted by Algeria and South Africa): there should be two registries-**

- A registry on national actions that are nationally funded: these actions should also be published in the National Communications and assessed by the national authorities themselves;
- Another registry for actions provided with international and technological support: for these actions, the UNFCCC could implement MRV systems.

**Proposal by LDCS, AOSIS and industrialized countries:** ambitious and possibly quantified yet not constraining NAMAs for emerging countries.

○ **Options for programs of NAMAs/NAMA programs**

- Energy efficiency in all uses;
- Higher quality construction and renovation;
- The development of agriculture adapted to climate change and more productive;
- A low carbon electricity production;
- The dissemination of low-carbon manufactured goods and household appliances;
- Access to electricity for all, particularly by developing renewable energy;
- Tackling deforestation and forest degradation;
- Reduced firewood consumption in countries exposed to deforestation and desertification;
- Waste recycling and reduction of methane emissions;
- Improved industrial processes, particularly in industries relative to the extraction and transformation of raw materials;
- Development and dissemination of low-emitting vehicles;
- Improved transport systems, particularly for urban and long-distance freight purposes.

○ **Financing options for NAMAs**

The question of financial contributions for NAMAs should be discussed taking into account:

- The discrepant financial capacities among non-Annex 1 countries
- And thus, the need for differentiated support among countries: high in least developed countries, moderate in developing countries
- The implementation procedures should not reiterate CDM mistakes and avoid the financing of cost-efficient actions only;

○ **A NAMA registry kept by the UNFCCC**

Another debate needs to be prompted: what kind of coordinating mechanism could manage low-carbon development strategies and NAMA programs (type of organs, governance, registry organization, financing conditions, monitoring of financing, nature of the sanction in the case of non-compliance).

NAMAs, whichever their nature, should be inscribed into a registry accounting for and monitoring the actions. In this perspective, the G77+China demanded the recording of all NAMAs, including unsupported and unilateral actions.

## ● Aiming toward low carbon strategies

A number of countries are demanding a more global definition of NAMAs (EU, US, Japan, etc) that could turn national NAMA programs into national strategy plans for low-carbon development.

This proposal could include “no-lose targets”: non-constraining targets for developing countries that once achieved, further emission reductions could be sold on the carbon market.

## ● Other unresolved matters

Recurring unresolved questions are:

- The possibility for developed countries to fund NAMA actions as a means to offset a share of their national target. AOSIS countries are hostile to this proposal, contrary to the EU. One of the possible options would be to limit the share of international offsetting,
- The inclusion of adverse spill-over effects of mitigation actions,
- Comparability of efforts in the UNFCCC and the KP,
- Integrating REDD in NAMAs as a mitigation instrument (Australian proposal),
- Connecting NAMAs, NAPAs and TNAs (Ghana’s proposal). Indeed, financing for technology transfers and NAMAs should be connected,
- Separating mitigation in developed and developing countries (“firewall” proposed by South Africa),
- Importance of the local levels (proposal by Senegal).

## ● Threat of failure in the negotiations on mitigation

Negotiations could fail, due to:

- A number of Parties do not trust the system because it is too complex;
- Developing countries mistrust developed countries for their selective attitude (based on the recent failure of the CDM in the poorest countries);
- Developing countries have high financial demands (i.e. requesting funds for all actions) and this could be incompatible with financial capacities in industrialized countries;
- Methodological difficulties to quantify mitigation and to select indicators assessing mitigation on the long term (for sectoral NAMAs for example).

Many of the issues could be easily resolved with time. NAMAs will probably be more closely defined during the meeting prolonging Copenhagen.

## **5.6 - REDD + (Reduction of Emissions linked to deforestation, forest degradation and biodiversity protection)**

The REDD+ mechanism is one of the advanced themes in the negotiations on climate change, even if strong divergences on implementation modalities remain. It is in the countries’ interest to find consensus as quickly as possible, in order to launch the “transition” phase of the REDD + mechanism and ensure that it is integrated in the post-2012 agreement.

## ● Definitions

- **RED**: includes emission reductions linked to deforestation;
- **REDD**: includes emission reductions linked to deforestation and forest degradation;
- **REDD+**: includes activities increasing carbon stocks in forests. According to some countries, conservation and sustainable management of forests is included in the mechanism as a means to tackle degradation/deforestation or as an outcome that should be paid for. There needs to be a common definition;
- **REDD++**: includes REDD+ and carbon emissions induced on farmland (not other emissions induced by farming practices).

- ***The current context***

- Negotiations on REDD should be kept proactive, to ensure at least one successful outcome in Copenhagen,
- The possible alliances and common grounds will a key development in the next few months,
- The clearer and legally correct the proposals, the more central they will prove,
- A step-by-step approach in the financial means should be defined.

- ***The main negotiating points could be the following:***

- |  |
|--|
| <ul style="list-style-type: none"><li>▪ Obtain an agreement on a tri-phased REDD + implementation process, with the launch of the preparatory phase immediately after COP 15,</li><li>▪ Assess the financial needs for phases 1 and 2 to launch the transition phase,</li><li>▪ Define the financial means most adequate for the countries' needs (global fund, bilateral financing, market mechanisms...) and establish an order of priority among financial means,</li><li>▪ Write down the rules of governance in the Copenhagen Agreement.</li></ul> |
|--|

- ***Integrating the REDD+ targets in the shared vision***

The global climate targets that structure the shared vision will need to be converted into concrete deforestation targets. More proposals were submitted on the specific objectives of the forest issues, and namely:

- |   |
|---|
| <ul style="list-style-type: none"><li>▪ The 50% cut in tropical deforestation by 2020 and,</li><li>▪ Stabilization of the world's forest cover by 2030.</li></ul> |
|---|

- **The scope: RED, REDD, REDD+ or REDD++?**

4 criteria will delineate the REDD+ mechanism and found the institutional frame and as well as determine the amount of financial transfers to be allocated and distributed to tackle deforestation and forest degradation. These 4 criteria are: field of application, baseline, scale and financing source.

Delineating the scope of application will contribute to define the number of funding recipients. It wavers between environmental efficiency (i.e. include enough activities to reduce emissions in forests) and economic efficiency (the broader the scope of application, the more the recipients, and the smaller the financial contribution per recipient).

There is rather broad consensus on the inclusion (on the short or long term) of increasing forest carbon stocks and the protection and sustainable management of forests. In Bonn, progress was made on that last question only.

- **Baseline scenario**

The baseline scenario chosen for the agreement will play a decisive role in the allocation of funding among recipients.

- ***Scenario based on historical emission trends***

This scenario is a linear projection of historical deforestation trends in countries (degradation is thus not included). It suggests rewarding countries that deviate their emission trends below this scenario. Consequently, this approach rewards countries that have been proactive tackling deforestation for a long time.

- ***Scenario based on projected emission trends***

The projection scenario anticipates the possible evolution of a number of variables that influence deforestation. This projection includes an adjusting development factor –ADF- (it takes into account national circumstances, social, environmental and economic factors) to which historical deforestation rates would be adjusted. This approach is oriented towards future actions and tends to enhance the policies that will be implemented.

- **The stock-based approach**

The stock approach pays for carbon stocks that exist at a specific moment in time. It does not take into account stock variations. The mechanism would pay for each ton of CO<sub>2</sub> stocked in the existing forests. The financial transfer will increase if the stock increases (i.e. if the sinks increase more quickly than the emissions). This approach includes forest conservation. It is beneficial to countries with a broad forest cover and would give them a regular income. On the other hand, this approach would not substantially fund actions.

This issue is crucial because it will define financial allocations. Countries with High Cover and High Deforestation rates are in favor of a historical baseline scenario. COMIFAC countries, on the other hand, waver between an adjusted reference scenario and a stock-based approach.

- **Credits at which level of action?**

This question is important because it can affect the investment climate and the countries' capacity to implement and monitor emission reduction measures.

There are two possible levels of action: the national level or the sub-national level. The latter provides countries with weak control over their territory with the option of excluding a zone from the accounting system (in case of war or rebellion for example) accordingly with national circumstances.

Colombia and COMIFAC countries are in favor of the sub-national approach. A number of countries, particularly in Africa and South America, advocate for the part that local and indigenous communities should play in the development and implementation of a REDD+ mechanism.

- **Financing**

The IWG-IFR secretariat<sup>11</sup> assessed the annual financial means needed for the REDD mechanism to function. The assessment follows three phases defined by IWG-IFR (cf.p46) and highlights the incremental need for financing:

- Estimated cost of phase 1 (capacity-building, preparation activities) from 2010 to 2015: 200 to 250 millions €;
- Estimated cost of phase 2/a (organizing stakeholders and devices): 200 à 250 millions d'€;
- Estimated cost of phase 2/b (implementing the strategy): 1.5 to 2 billion €;
- Estimated cost of phase 3 (launching the actions): 10 billion €.

This amounts to 12 billion € by 2015<sup>12</sup>.

**Proposals for sources of financing:**

- Direct support from developed countries (additional contribution to the ODA),
- Tax or share of proceeds,
- Auctioning revenue on a quota of credits,
- Market mechanisms (introducing REDD+ actions in the Kyoto mechanisms,
- Voluntary compensation by businesses, local authorities and decentralized cooperation,
- A future fund established by the UNFCCC (proposal for a Global Forest Fund)
- Compensations by countries required to mitigate their emissions,
- A centralized registry under the auspices of the UNFCCC with direct financial contributions by developed countries,
- A dual approach: a distinct REDD+ market mechanism. This would mean two parallel markets with two monetary values of Carbon.

<sup>11</sup> IGW-IFR: Interim Working Group on Interim REDD Financing

<sup>12</sup> Eliash Review, IWG-IFR secretariat

All countries except Brazil are in favor of a combination of financial options (public and private). Clearly, this question cannot be separated from the other policies that will also demand financing (i.e. adaptation, technology transfer, capacity-building, etc).

- ***Allocation formula***

Experts generally agree on the formula proposed by Professor Bernardo Strassburg.

Strassburg proposes a global mechanism to eliminate the risk of emission leakage (in other words, the delocalization of deforestation to non-accountable zones of the world) and to ensure that actions receive funding for effective emission reductions.

Reductions are calculated each year, based on the difference between the global baseline and the current year's emissions. If the difference is negative, countries will not receive funding. If the difference is positive, the payment is based on the price of the avoided ton of carbon.

The second phase of the process regards the incentive to stop deforestation.

There are two types of incentives (the scale needs to be negotiated):

- An incentive to reduce emissions comparatively with historic emissions trends
- An incentive to reduce emissions below the baseline.

In the mechanism's last phase, funds are fairly allocated according to the rate of mitigation action by countries.

### National positions on the REDD mechanism<sup>13</sup>

Country	Scope of application		Financing			Baseline scenario		Scale	
	Short term	Long term	Funds	Market	Combination of financing options	Stock	Emissions	National	sub-national
Central America	REDD+				X		Projected	X	X
Australia	REDD+	REDD+ farm land			X		Projected	X	X
Brazil	RED	REDD+	X				Historic	X	
China	REDD+				X		Historic	X	
Colombia	REDD+				X		Historic		X
COMESA	REDD+ farm land				X				
COMIFAC	REDD +				X	X	Projected	X	X
United States	REDD+	REDD+ farm land			X		Historic		
India	REDD+				X	X		X	
Indonesia	REDD+	REDD+ farm land			X	X	Historic	X	
Japan	REDD	REDD+			X		Projected	X	
Mexico	REDD+				X		Projected	X	
Norway					X		Projected	X	X
Rainforest Coalition	REDD+	REDD+ farm land					Projected	X	X
EU	REDD	REDD+			X		Projected	X	X

### ● **Implementing REDD step by step**

A REDD+ mechanism could be implemented in three phases.

#### ○ **Phase 1: technical and institutional preparation**

- Talking with stakeholders,
- Analyzing the causes of deforestation and forest degradation,
- Implementing national REDD+ strategy,
- Creating and regulating protected areas,
- Choosing a baseline,
- Modeling a long term baseline scenario,

<sup>13</sup> «Le positionnement des pays dans les négociations REDD et ses déterminants économiques et institutionnels.» ONF International, AFD

- Launching pilot actions and monitoring and assessing the results to establish performance indicators.

This phase would probably last until 2015 and be funded by public finance (voluntary aid by developed countries, FCPF, UN-REDD).

○ **Phase 2: preparing for implementation**

There are two sub-phases in phase 2: phase 2A focuses on institutional preparation and phase 2B focuses on implementation. The starting date will depend on the country.

○ **Phase 2A**

- Implementing the tools for sustainable forest management (legal, regulatory, operational, MRV procedures), launching a land ownership reform;
- Identifying reachable outcomes based on pilot operations and on the indicators established in phase 1;
- Financing via funds and abovementioned resources.

○ **Phase 2B**

- Implementing programs of action;
- Financing allocated based on result-based indicators.

○ **Phase 3: global implementation and call for additional financing**

- Generalizing actions and funding them according to the level of emission reduction achieved,
- Integrating the mechanism in the UNFCCC governance system and with other mechanisms,
- Complementary financing by market mechanisms as soon as rules of governance become operational,
- Focusing public fund on organizational devices and sustainable management,
- Use the market to fund actions with easily assessed and monitored emission reductions.

● **Governance**

When implementing a new mechanism, rules of governance for this mechanism must be defined, particularly on the options regarding the management of financial resources.

● ***MRV, methodological, institutional and technical issues***

The negotiating text highlights the importance of methodological issues, particularly on systems to measure and verify actions (referred to as MRV). There is no consensus on the extent (nature and scale) to which developed countries will be accountable for REDD + actions.

A number of institutional proposals were submitted:

- Make REDD+ a component of a global financial framework, thus creating support for NAMAs and a special fund established by the COP;
- Link the REDD+ mechanism and the international fund for climate change;
- Move forward on existing initiatives (FCPF and UN-REDD),
- Establish a specific organ to monitor REDD+ activities,
- A proposal for a broader approach to the sustainable management of forests, including a REDD+ approach, along with a pack of financing options and a demanding MRV system.

Developing country positions highlight the need for international cooperative actions regarding technology transfers and effective capacity-building actions. A proposal was made to establish a registry within the UNFCCC framework to monitor the REDD+ actions implemented.

- **REDD+ and NAMAs**

In the June 2009 version of the negotiation text, REDD+ is listed as one of the activities potentially included in the NAMAs (§ 73 (f)) although there is no consensus on this option.

There are two possible approaches:

- REDD+ activities are integrated in a NAMA or act as NAMAs themselves,
- REDD+ activities are part of a distinct mechanism.

The first option enables the integration of forests in a global mitigation system, which is crucial on the long term. The second option enables more efficiency on the short term.

The following idea was put forward more than once: developed countries could meet a part of their reduction commitments by resorting to REDD+, with however a threshold limiting the use of REDD+ activities to offset emission reductions.

The debate at the Copenhagen conference will focus on the threshold of offsets via REDD+.

## **5.7 – Reducing emissions induced by airborne transport and maritime fret**

As yet, international air and maritime transport emissions are not included in any climate-related convention. Parties have voiced a possible goal for these international emissions: reduce emissions to 2005 levels by 2020.

A negotiation process was engaged with the International Civil Aviation Organization and the International Maritime Organization. There is consensus on the need to discuss the inclusion of these emissions with the two relevant organizations, particularly:

- Integrating these emissions in national inventories;
- Accepting reduction targets in both sectors and the conditions of allocation and responsibility;
- The implementation of a carbon cap-and-trade market on maritime and air transport companies;
- Particular conditions for islands and remote zones and LDCs.

The inclusion of civil air transport emissions will depend on the American position on the topic. The emissions could, in any case, be accounted for in the national emission assessments.

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### **Norwegian proposal:**

The Copenhagen agreed outcome should contain emission reduction targets for the aviation and maritime transport sectors. The IMO could be as to establish and monitor the global regulation of maritime fret (coordinating the conventions and agreements, implementing the regulation instruments).

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## **6- SHARE VISION**

The following issues are unresolved:

- The choice of scientific data as a basis to fix long term targets,
- The warming threshold under which ecosystem and human livelihoods are not at risk;
- Quantified long term goals,
- Short, mid and long term quantified targets by industrialized countries,
- The share of historical responsibility.

#### New proposals on the table:

- Quantified targets for emerging countries,
- A target for developing countries (as a group) to curb their emissions by 2050

In order to gain a better understanding of the complex negotiation process and based on the outline proposed by the AWG-LCA, the following points need to be discussed before reaching an agreement accepted by all Parties.

A few years back, scientists, NGOs, the media, industrialized members to the Kyoto Protocol, etc. put forward the IPCC's 4<sup>th</sup> Assessment Report (AR4) as the reference text that should found the international negotiating process. This "threat" strategy targeted a more proactive involvement of the US, emerging and developing countries.

The debate gradually evolved:

- Today, scientists are reviewing their diagnostics and heightening the threat of climate change. A few years back, countries agreed, based on the IPCC AR4, that global warming should be limited to 2°C compared to pre-industrial levels and this implied limiting GHG concentrations to 450 ppm. This diagnostic could be too weak. More recent modeling suggests more serious phenomena until 3000. They recommend limiting warming to 1.5°C and GHG concentrations to 350 ppm. These new scenarios imply the need for more constraining commitments by industrialized countries, a sooner peak of emissions.
- Long-term goals for humankind (that is both developed and developing countries) will serve as the obligation framework. This is why the G77+China is opposed to setting a long-term goal for all and why emerging and developing countries are opposed to reduction commitments and plans to curb their emissions from their BAU paths.
- Also, developing countries are using the IPCC scenarios and figures as a scientific argument for developed countries to reduce their emissions within the -25-40% range by 2020.

## **7 – RECOMMENDATIONS FOR A LEGAL FRAMEWORK FOR THE POST-2012 AGREEMENT**

Before June 17<sup>th</sup> 2009, the UNFCCC secretariat received 10 proposals regarding the post-2012 agreement:

- Two proposals for a Copenhagen Protocol (Tuvalu and Costa Rica),
- Two proposals for quantified targets for the next commitment period (an amendment to annex B by the Philippines),
- Five proposals to amend the Kyoto Protocol (EU, Colombia, New Zealand, Australia, 37 non-annex 1 countries + China),
- A proposal for a "Copenhagen agreed outcome",
- A proposal by a group of NGOs for a Copenhagen treaty.

### ***7.1 – Due dates and the negotiation process***

#### **The due dates until Copenhagen in both AWG-LCA and AWG-KP**

Between September and December, the negotiating calendar will pace up: the AWG-LCA chair hopes to end the 9<sup>th</sup> LCA session in Bangkok with a "light" version of the negotiating text, mostly by streamlining the text and merging similar ideas. The difficult work of eliminating proposals will get an informal head start and continue in Barcelona in November. In the last days in Copenhagen, the negotiation process will be handed over to the elected officials.

The debate has as yet avoided dealing with the institutional nature of the agreement. In these last months, the United States' persisting refusal to sign the Kyoto Protocol created confusion in the negotiation process and among stakeholders on the possible options.

The process is facing two difficulties:

- Uncertainties regarding the legal nature of the outcome: amendment to the convention, new protocol, COP decisions, other type of agreement,
- Insufficient time to build up a whole new legal architecture.

## **7.2 – Proposals on the legal nature of Copenhagen outcome**

A number of proposals were submitted regarding the next agreement

### **Proposals to amend the Kyoto Protocol by China + 37 countries**

#### ***Modifying article 3 which specifies the global 5% emission target by 2012:***

- A1 parties will reduce their emissions by 40% in 2020,
- The principle of historical responsibility (1850-2005) will drive the allocation of commitments,
- The negotiations on the second commitment period will start before the first period has ended.

#### ***A new column in the Annex B table (based on 1990 levels):***

- Australia is committed to 11% target and New Zealand 16%,
- Canada is committed to a 23% target and the USA -26%,
- Japan gets a -19% and EU -28%.

***The amendment will enter into force if ¾ of Parties to the Protocol adopt it.***

Clearly, a number of the targets proposed are unfeasible in such a short period of time.

### **Amendment to the Protocol proposed by New Zealand**

NB. This proposal is valid only if the Kyoto Protocol remained the legal instrument for the second commitment period. Ideally however, New Zealand would prefer a new treaty that would frame commitments by both developed and developing countries.

- Commitments are applicable once the instruments established by the AWG-LCA enter into force,
- Use of emission credits generated by REDD, NAMAs and flexibility mechanisms to achieve the targets,
- A reviewed version of annex B (annex C): the same table with quantified A1 commitments for the second period and a new column for commitments by non annex 1 countries (NAMAs for example),
- A mechanism to trade NAMA credits for non-A1 commitments (voluntary participation, sectoral approach).

This proposal attempts to focus discussions on the commitments in the second period and recommends setting contributions for non-A1 countries. It does not address the issue of United States.

#### **Amendment to the Protocol proposed by Australia**

- National plans (*national schedules*) of NAMAs (unilateral or supported);
- Developed countries: national emission reduction commitments;
- Developing countries with mitigation capacity: engagement to deviate from the BAU emission trends;
- Forest carbon market for Parties who wish to participate;
- Possibly, a sectoral credit mechanism for no-lose targets if non annex 1 countries agree to fund a part of their NAMAs;
- Possibly, inclusion of CCS in the CDM project/program list;
- Air and sea emissions cannot be included in A1 mitigation targets, but should be regulated through a separate mechanism/framework and given a mitigation target.

#### **Giving the negotiating text a legal form**

**Costa Rica** rewrote the negotiating text as a Protocol. It contains all the options that are consistent with the Convention. The COP would only have to eliminate on-agreed options. Costa Rica hence submitted a work tool for the negotiations, by simplifying the proposals on the table and giving them a legal form.

The United States also proposed legal text but contrary to Costa Rica, does not prejudge the legal outcome of the text: it is published as the "Copenhagen agreed outcome". It contains different options and targets envisioned by countries.

**Copenhagen Climate Treaty submitted by an NGO coalition  
(Indy Act, David Suzuki, Germanwatch, WWF, Greenpeace)**

**Claims**

- ❖ The next commitment period would span 5 years (from 2013 to 2017),
- ❖ The world's carbon budget will amount to 31.6 Gigatons in 2020. This means imperatively reducing global emissions by 80% by 2050, reducing deforestation by 75% and peaking emissions by 2020.

Industrialized countries shall:

- Draw up a Zero Carbon Action Plan in order to reduce their emissions by 23% by 2015 and by 40% in 2020,
- Fund USD 160 millions climate-development aid (in addition to the 0.7% of ODA) to support developing countries (mainly the revenue from auctioning carbon allocations).

Developing countries shall (not obligatory for SIDS and LDCs):

- Reduce emissions by 50% compared to 1990 levels by 2050,
  - Draw up Low Carbon Action Plans (with NAMAs)
  - If needed, a national REDD plan;
  - National Adaptation Action Strategies
- ❖ Draw up Technology Action Programs: 2/3 renewable energy in 2050, improve energy intensity, ensure energy access for all by 2025, multiply by 4 the financing available for adaptation and mitigation by 2020.
  - ❖ CDM for LDCs and developing countries with little capacity. No nuclear power, LULUCF or CCS.

**Institutional mechanisms**

- ❖ Copenhagen Climate Facility (CCF):
  - With a mandate to sanction and recommend actions,
  - 4 boards: adaptation, mitigation, REDD, technology,
  - A supreme authority (CMCP),
  - National implementing agency (in-country coordinating mechanism) eligible to receive funds.
- ❖ Adaptation Action Framework:
  - Funded by the Adaptation Board (CCF),
  - USD 63 billions/year between 2013 and 2017,
  - Pillar 1: planning and implementing urgent national actions,
  - Pillar 2: integrating actions, implementing national adaptation plans.
- ❖ Risk insurance mechanism

The NGO treaty proposes a very centralized institution that could prove insufficiently flexible to create consensus among Parties. A number of claims could get a cold shoulder from certain groups: for example, the issue of direct access to funds by national agencies, high financial contributions from annex 1 countries, CDM exclusively for LDCs. On a positive note, the treaty distributes the mitigation burden among all countries and decentralizes the implementation processes.

Ratifying a new treaty will prove difficult because of the short time left and the idea does not appeal to Parties because they fear a second refusal to ratify by the US.

### **7.3- Global architecture**

- **The nature of the next agreement**

- **Options**

Officially, the negotiations regarding the legal nature of the post-2012 agreement have not begun. So far, the terms “agreed outcome” defined by the Bali Action Plan have created consensus among countries only because the terms did not define the legal nature or the content of this outcome. A number of options are on the table:

- Simple COP (UNFCCC) or CMP (Kyoto) decisions, texts that do need to be ratified by national parliaments,
- Amendments to the Rio Convention,
- Amendments to the Kyoto Protocol,
- Amendments to the annexes of the Protocol or the Convention,
- A new Protocol attached to the Convention,
- A new treaty,
- A political agreement.

- **CMP or COP decisions**

Decisions enable the effective implementation of the Protocol/Convention. They can reiterate a prior commitment made by Parties, develop a methodology for implementation or enhance existing commitments. However, decisions cannot lead to new legally binding commitments.

- **Amending the Protocol or the Convention’s text**

These amendments do not have a limited scope of application.

- An amendment to the Convention could: modify or create a new commitment, modify/specify the objective of the Convention, modify/create institutions/mechanisms.
- An amendment to the Kyoto Protocol could: establish new commitments for A1 countries, create other types of engagements, modify/create new flexibility mechanisms, or include MRV procedures.

Amending the annexes to the Protocol or the Convention requires 3/4 of Party votes. It will then be applicable to all Parties unless they formally object to it.

At the Bali conference, countries agreed on the fact that reviewing Article 9 of the Protocol should not lead to or imply new commitments for one or more Parties. Amendments are hence limited.

With regard to annex B of the Protocol, which contains the quantified commitments of A1 countries, amendments cannot be adopted without a written consent from the Party (parties) concerned by the amendment. This applies to any amendment to annex I or annex II of the Convention.

- **A new Protocol**

Article 7 of the Convention enables the adoption of a new Protocol if agreed to by all Parties to the UNFCCC. The new Protocol would be established under the auspices of the Convention (principles, objectives, etc.). The rules regarding the enforcement of the new Protocol will be defined in the new text. A question remains: would the new Protocol complete or replace the Kyoto Protocol?

- **A new treaty**

Establishing a new treaty seems unlikely at this stage because it would involve negotiating a text as forceful as the Rio Convention. On one hand, this options has been little discussed in the negotiations so far; on the other hand, it would require a lot of work and time that we don’t have to ensure the formulation, adoption and ratification of the treaty by end 2012.

- **Next steps to implementation**

In any case, COP 15 will not succeed in concluding the full post-2012 agreement. The Kyoto Protocol was only applied after the Marrakech agreement in 2001. Preparing the implementation means, channeling the funds and defining the allocation rules will take time. The effective implementation of this agreement will need at least a year to be effective.

- **A simple agreed outcome**

It is clear that as time runs outs, the capacity to draw up a treaty, a protocol or another legal instrument diminishes too.

The most likely option is that of a political agreement among heads of State and ministers in the last negotiating phase in Copenhagen. The agreement would be sealed by a brief political text containing the major decisions:

- Shared vision,
- The level of commitment by industrialized countries
- The action mechanisms: PANAs, NAMAs, REDD+, programs of technology transfers,
- The types of financial contributions (taxes, share of proceed, voluntary contributions, assessed contributions, market-based mechanisms),
- The amount of funding on the table,
- The legal form of the agreement (Rio Convention, Kyoto Protocol, new Protocol)

The political agreement would give negotiators the mandate to transcribe the agreement into a legal text, either at an extraordinary COP in June 2010, either at COP 10 in December 2010.

### **WAXMAN-MARKEY BILL: The American Clean Energy and Security Act (ACESA)**

The “Climate Change Bill” submitted by Senators Waxman and Markey in the United States on May 21<sup>st</sup> 2009 has crystallized the national debate on climate change. Efficient lobbying and the strong republican criticism have weakened the bill and led to compromises. The modified bill was voted by the House of Representatives (219 seats vs. 212). It contained the following points:

***To achieve the following targets...***

- 17% GHG emission reduction by 2020, compared to 2005 levels,
- 80% GHG emission reduction by 2050.

***The following policies will be implemented...***

- 20% of the electricity produced by energy service companies (ESCOs) will be clean by 2020,
- Reduce coal emissions from 2400 to 2180 MtCO<sub>2</sub> by 2025 through nuclear development,
- Massive investment in technological development. By 2025, USD 90 billion will be spent on renewable energy and energy efficiency,
- USD 20 billion spent on developing clean vehicles and 20 billion spent on R&D,
- USD 60 billion investment in carbon sequestration (CCS technology),
- Standards and labels on energy savings,
- Emission allowance trading system covering 85 of the US economy by 2016,
- Consumer protection against incremental energy prices,
- A carbon market operational by 2012 involving companies that emit more than 25000 tons of carbon per year,
- 80% of the revenue from auctioning emissions allowances will be re-allocated to the consumer and to public ends; 20% will be allocated to the private industrial sector.

The Senate postponed the discussions on the bill until late September, thus holding up the climate negotiation process.

The announced GHG emission reduction target for 2020 fell from 20% to 17% under political and industrial pressure. Although the target appears ambitious for such a short period, only contributes to reduce emissions by less than 4% compared to 1990 levels. The 2050 target also fell from 83 to 80%.

The hot issue is relative to credit allocation within the cap-and-trade system. Indeed, the law chooses to discount or even give away a large share of the emission permits (up to 55% would be allocated for free in the first 10 to 15 years). According to Senator Waxman, the credit allocation system needs to be very flexible for the Senate to vote in favor of the bill. It also protects consumers from the bill’s likely impact on energy prices by allocating 30% of emission permits to the electric sector. Furthermore, free allocations are a means to avoid the delocalization of companies in “carbon havens” (mainly China)<sup>15</sup>.

The Waxman-Markey bill allocates emission permits to electric utility companies that are subject to the service cost regulation because the service cost would increase with the bill. For this reason, the bill

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<sup>14</sup> Tables in the annex based on the analysis by the French Centre d’Analyse Stratégique. Notes de veilles de Juin 2009.

<sup>15</sup> According to Robert Stavins, the key attribute of the bill’s « cap-and-trade » system is the allocation of emission permits, either free or auctioned. The choice between these two options should not, in theory, affect a company’s production or its decision to mitigate its emissions. Indeed, the cost of the allocated emission does not change. However, the opportunity cost varies according to whether the company uses or sells the permits. Thus, the allocation system should not influence the global cost of the “cap”. Compared to the carbon tax, the cap-and-trade system is under less political pressure. The allocation of permits may create tensions but the system will not become more expensive.

attempts to alleviate this extra cost by giving consumers money to make up for the increased electricity bills. Lowering the rates would reduce the incentive to save energy.

### ***Debating within the USA***

Six committees within the Senate were requested to work on the bill: agriculture, trade, energy and natural resources, environment and public work, finance, international relations. The debate will be intense as each committee is under pressure from conflicting lobbies. Within the Senate, the project will need to collect 60% of the votes in the High Chamber and a simple majority in the Low Chamber.

Democrats have a weak majority in the Senate. Furthermore, Southern democrats are very skeptic about the bill and most democrats don't agree on the allocation criteria for emission permits. On the other side, republicans renamed the bill "cap-and-tax". The National Rural Electric Cooperative Association, one of the main stakeholders to be impacted by ACESA, rejects the auctioning system because it is not in favor of small companies. The Energy committee is divided on the issue. The US Chamber of commerce is opposed to the bill because it could lead to shut down 1.9 million jobs and cost each household a mean USD 1400 by 2020. NGOs are also critical about the ACESA because it has been emptied of its content.

According to the *Environmental Protection Agency*, GHG emissions should be regulated as pollutants in the Clean Air Act instead of establishing further regulation.

# Policy-making by bits and pieces: the American climate policy focuses on technological development

