

# Climate Change

## Negotiating the post-2012 regime

Analysis of the stakes on the eve of COP-15 in Copenhagen

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## 1. COPENHAGEN IS A MAJOR CHALLENGE FOR HUMANKIND

Humankind is affecting the climate and will need to regulate the changes. Yet, the climate is one and indivisible. Each country's climate is affected by the choices and practices in other countries.

This new round of negotiations is founded on a clear scientific diagnostic and based on the Convention and the Kyoto Protocol. To limit the temperature increase below 2°C, greenhouse gas emissions must be divided by 2 by 2050. Copenhagen will decide on the temperature increase for this century. In order to make this political decision, countries must come to a global agreement regarding national emission paths and access to development in poorer countries. The stakes are high and the negotiation process very complex.

Although major political commitments were announced in the last few weeks, there will be a lot of work to do in Copenhagen.

- First, developed countries will need to come to a fair agreement regarding future emission reductions. End of November, the reduction targets announced by developed countries for 2020 only amount to -22%, below the -25-40% range recommended by the IPCC. Targets need to be more ambitious to create the trust needed among Parties.
- On the up side, a number of emerging countries recently announced targets to reduce carbon intensity (namely China), or future emission trends or deforestation (Brazil for example);
- Countries need to reach consensus on the legal form of the agreed outcome. What will come of the 200-page negotiating text riddled with bracketed disagreements? What is in the store for the Kyoto Protocol rejected by the US? There are three main options: (1) a new protocol; (b) a series of legal decisions by the Convention of Parties; (c) a political declaration. It all comes down to whether the US accepts to ratify a legally-binding multilateral agreement or not. The United States holds one of the main keys to an international agreement.
- During the climate meetings this year, negotiators made significant steps forward on a number of means to mitigate emissions, tackle deforestation, adapt and transfer technologies. The conference in Copenhagen will aim to finalize negotiations regarding these components of the future agreement and launch operational pilot-phases as soon as 2010, until the new regime enters into force in 2013.
- The final negotiating phase in Copenhagen will likely focus on the financial issues. Making the shift towards a low carbon path to development will require substantial financial transfers from North to South. Countries will need to come to an agreement regarding the scale and form of contributions by developed countries, the institutional arrangements of the financial scheme, and the channels to deliver the resources.

On the eve of COP 15, everything is still possible. However, there are three main possible outcomes:

- Either countries agree on the framework for a new protocol that could "absorb" the Kyoto Protocol and include new elements for action on mitigation, adaptation, deforestation, technology transfers, institutional arrangements and finance;
- Either countries strongly disagree on the legal nature of the agreed outcome and come up with a series of legally weak COP decisions that do not need to be ratified by parliaments (it seems likely the Kyoto Protocol would be maintained in this case);
- Either the negotiations reach a deadlock. In which case the elected officials could "resolve" the main issues during the high-level segment by with a broad and consensual political declaration.

In any case, it is very likely the Copenhagen negotiation round will be prolonged in 2010. The clearer and the more ambitious the mandate agreed upon in Copenhagen, the easier the next phase will be for negotiators in charge of giving substance to the framework/declaration/decisions.

Given this context of extreme uncertainty and confusion, this analysis aims to:

- Help the reader understand the stakes of the negotiation process without the negotiating jargon;
- Describe the state of the negotiations for each issue (keeping in mind negotiations evolve very rapidly and unpredictably);
- Enlighten the reader on the possible convergences among parties to facilitate an agreement.

## 2. A MAZE WITH 5 ENTRANCES

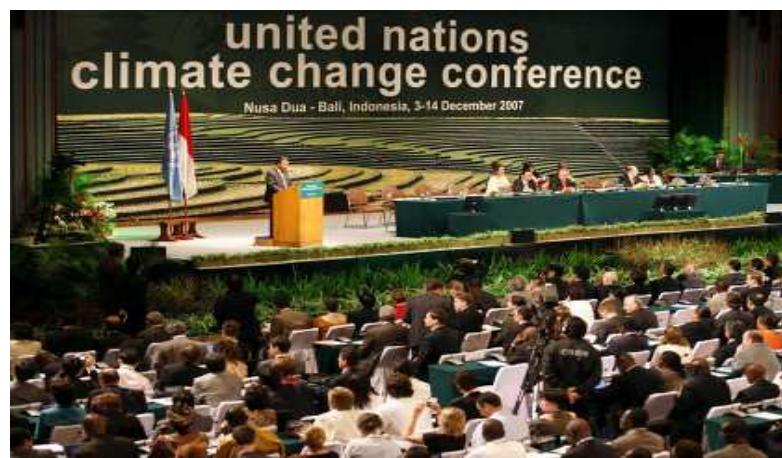
The maze with 5 entrances is a good metaphor to understand the issue: there are 5 possible negotiating elements that could be used as a starting point for the active negotiating phase.

### ● 2.1- Entering the negotiating process through the climate goals: the Bali attempt

The Bali conference started off with a debate on the climate goals, based on the International Panel on Climate Change's (IPCC) 4<sup>th</sup> Assessment Report (AR4). This approach failed at the Bali and Poznan conferences. Yet, the IPCC-observed evolutions in climate change make it crucial to stabilize temperatures at 2°C above preindustrial levels, because beyond this level:

- Food and water resources will be directly threatened, namely under the two tropics of Capricorn and Cancer, due to the lower precipitation rates;
- The rising ocean levels will directly threaten the most populated coastal zones on the planet.

The argument used in Bali was hence quite strong as it attempted to define goals according to the planet's common interest and needs.



Bali conference, held from the 3rd to the 14th December 2007

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 (cf. annex 2). 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 to 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 agreed outcome 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>1</sup>. The countries also agreed that tackling climate change required a 50% cut in emissions by 2050.

<sup>1</sup> Declaration of the leaders at the Major Economies Forum on Energy and Climate, Aquila, July 2009.

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 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. It is likely that Parties will only agree on a shared vision in the last phase of this negotiation round.

## ● **2.2- Entering the negotiating process through the commitments by Annex 1 countries in the Kyoto Protocol**

Kyoto commitments by industrialized countries were the second – and historically most justified – entry. However, the Kyoto commitments have been an issue for a long time now and the debate ended in a deadlock.

- ***Firstly, the United States continue to reject 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 sideslip in American emissions means that, no matter how hard the country try 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 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: Austria, Spain, Greece, Ireland and Italy. 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 massive 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 complex:

- Although opinions diverge on how to ensure compliance with commitments, all industrialized countries acknowledge the need to commit on the long term and the need for these commitments to be legally-binding;
- The conformity clauses in the Kyoto Protocol will prove difficult to apply, namely because of the emission reductions massively postponed to the second commitment period. An additional 30% penalty target could apply in case of non-compliance;

- 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 a possible 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.

Unsurprisingly, the heterogeneous emission trends and the weak emission reductions have not succeeded in rallying developing countries, scientists, NGOs and the media. This second entry point in the negotiation process is little more convincing than the shared vision entry point. The Kyoto commitments failed in creating a political and trustworthy foundation for the negotiating process. Quantified emission reduction 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 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. The 2010 contributions will depend on the crisis' evolution (aggravation, stagnation or reflation). In any case, the financial entry point is at a stand-by for now.

- ***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 increasing emission trends in developed countries. Developing countries are still waiting for the financial aid promised in Rio and Kyoto by developed countries.

To resolve this issue, 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 distributed by the Least Developed Country Fund (LCDF), governed by the GEF. The financial issue is directly linked to a trust issue: **developing countries refuse to design more programs and implement new actions before receiving the financial aid promised for the previous programs and actions.**

The financial crisis dried up the meager financial capacity, but also diminished the developing country Parties' trust in market-based mechanisms. Yet, these mechanisms will prove necessary (a) to fill the gaps in public funds and traditional aid resources and (b) 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 incentivize an agreement in Copenhagen.

### **2.4 - The 4th entry point: adaptation and mitigation actions**

The negotiation process is encountering serious difficulties and something must be done to recreate trust and stimulate the process. **Could concrete action stimulate the negotiating process?**

The sole positive point in the negotiating process so far is the NAMA proposal: it calibrates actions according to the level of development 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 link 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. It depends on the financing resources 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 for example) 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 a fair financial mechanism that will remunerate developing countries for their NAMAs, accordingly with their level of development and their vulnerability to climate change.

### ● **2.5 - The 5th entry point consists in an agreement among major economies, outside of the UN framework**

Is a disagreement preferable to a discounted and inefficient international agreement that would consequently favor potentially efficient bilateral agreements and not resolve the development issue? It may well be a trick question. Bilateral agreements could be beneficial on the short term if major emitters took action outside of the legally-binding framework; but only a strong multilateral agreement can curb high emission trends in developing countries and resolve development issues.

There have been attempts to sign agreements outside of the UNFCCC: namely, a multilateral agreement at the Major Economies' Forum and other attempts to agree among "major" countries. The US has often marked its preference for bilateral agreements and considered 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 as they both reject the idea of legally binding commitments and penalties.

The two major GHG-emitters attempted a *rapprochement* and signed 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 and appears more like a foundation for political dialogue.

This dialogue was furthered in an Obama-Hu Jintao meeting in November. Obama officially announced that the US would reduce its emissions by 2020 and 2030 (-17% and -42% compared with 2005 levels) and China politically committed to reducing carbon intensity per GDP unit. Clearly, one power cannot take a step forward without the other. This type of negotiation cannot replace the UN negotiation process. Otherwise, it would mean going back to bipolar diplomacy. 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, China wants to be on the brink between the industrialized world (China's economy) and the developing world (the Chinese population). China wants to uphold its role as messenger of the developing world and thus, 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 a reform of the intellectual property right system. However, this is 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 will be no agreement unless it is multilateral.



### ● **2.6- Little trust among Parties**

There are no sufficiently consensual entry points to serve as a basis to negotiate an agreement by Copenhagen. Industrialized countries are losing credibility since they proved unable to reach a weak target and because they have little financial resources to offer. Developing countries are focused on a traditional vision of the “right” path to development in which climate change is little accounted for. The lacking trust is a major concern. A first series of commitments could contribute to build trust:

- High reduction target commitments by developed countries (with longer time periods);
- The choice of realistic financing options with predictable contributions: tax, share 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. THE NEED TO STABILIZE GLOBAL WARMING AND AGREE ON A SHARED VISION

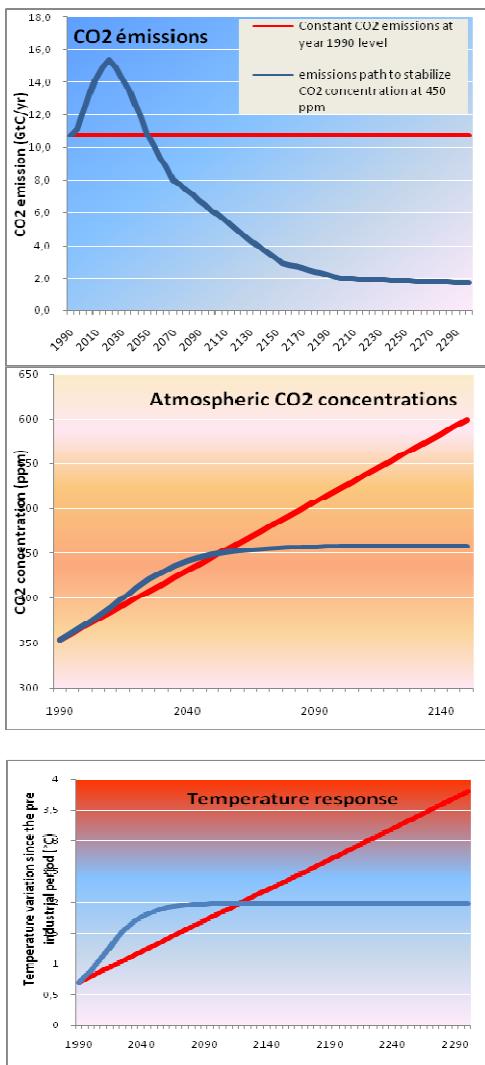
### ● **3.1- The IPCC's 4th Assessment Report**

The IPCC represents the community of scientists worldwide working together to study the actual and potential effects of global warming as well as its anthropogenic causes. In its AR4 (2007), the IPCC comes to the following conclusions on the urgency of tackling climate change:

- ❖ Global warming must remain below 2°C: beyond this increase, the impacts on the world's environment and water resources, and the fall in farming production, would induce unsustainable impacts endangering the food and water supply in the most populated regions of the world.
- ❖ In order to do so, global greenhouse gases emissions have to be halved by 2050. This implies that industrialized countries must reduce on average their emissions by 85% in the meantime.
- ❖ And, to ensure they achieve temperature stabilization, developed countries should reduce their emissions from 25 to 40% by 2020. Due to inertia, the high concentration of greenhouse gases in the atmosphere will keep increasing even after emissions peak. Therefore, emissions need to

peak rapidly, between 2010 and 2020, in order to remain below the 450 ppmv concentration of greenhouse gases.

**Graph 1. CO<sub>2</sub> emission trends and temperature variations (IPCC AR4)**



## Understanding the IPCC diagrams

The red curves indicate a stable emission trend. Given that the world population will increase by nearly 50% in 2050 and thus lead to a strong increase in emissions, in order to stabilize global emissions, industrialized countries will need to reduce their emissions accordingly.

CO<sub>2</sub> emissions have a 120 years lifespan in the

atmosphere. This means we are emitting much more than the atmosphere can absorb and decay in the same time span. This means that the atmosphere is storing the gases and contributing further to warming. This scenario could lead to an unforeseeable increase in global temperatures and possibly threaten life on earth (cf. graph 2).

To contain the temperature increase below 2°C, the GHG concentration in the atmosphere must not exceed 450 ppmv. Given that world emissions have increased by 1/3 since 1990, they will need to peak between 2015 and 2020 and decrease by 50% by 2050 (blue curve). This entails a 25% to 40% reduction of industrialized country emissions by 2020. At some point, we will need to emit less than what the atmosphere can absorb.

The more recent science has illustrated more serious impacts and comes to more alarmist conclusions than the IPCC's AR4. The 2°C threshold and 450ppm GHG concentration may not be able to contain global warming. Recent climate scenarios indicate serious impacts until 3000. Containing global warming below 1.5°C may prove necessary to save ecosystems from life-threatening impacts. A 1.5°C threshold will require more stringent mitigation targets by industrialized countries for 2020 and 2050.

Climate change has become an issue for all of humankind, as it will affect each community's way of life. Developing countries in particular are at stake and must reflect on the means and paths to ensure they achieve a low-carbon climate-resilient social and economic development.

### 3.2- Sharing a vision on long-term climate and development goals

Climate sovereignty can only be international. Climate change is the first global issue to require international solidarity: countries cannot choose to be free-riders without affecting the entire international system. A country's actions, both positive and negative, will have impacts on other countries. Stabilizing the global climate change will require a commitment by all to reach fair goals.

The IPCC AR4 comes to clear conclusions: the new negotiation round will need to decide on future evolutions of climate change in this century. In Poznan, the debate on the « shared vision » regarding the long term climate goals did not lead to an agreement among Parties. **It is indeed impossible to decide upon a global climate stabilization goal that commits all countries if it does not include development safeguards.** The debate on the shared vision failed because of the lacking trust among parties.

Building a vision of development that all nations can agree on will be painstaking work. From the perspective of developing and namely African countries, an international agreement must concretely ensure access to development, adaptation to climate change, and curb GHG emissions trends in developed countries.

- ***Climate stabilization goals and development safeguards***

Our future will build on the need to overcome development issues and stabilize climate change, in a context of limited resources. The world needs to conceive a new development paradigm. There needs to be a change of civilization. Hence, although African countries are responsible for a mere 3.5% of global GHG emissions, the choices they make today will play a decisive role in their future emission trends. All countries should progressively conceive a new development paradigm compatible with a low-carbon society.

- ***Agreeing on a global goal for 2050***

As yet, most developing countries are unwilling to accept climate goals for 2050. They fear that these goals could be used by industrialized countries to justify stringent commitments for developing countries. This position is evolving. Without long term goals, there will be less pressure on industrialized countries to make strong mitigation commitments within the Kyoto Protocol. Accepting a 2050 goal will also give a long term perspective on financial provisions for NAMAs hence leading to stronger financial commitments.

In 2009, the USA acknowledged the seriousness of climate change and decided to make mid and long term commitments to tackle climate change. This means that today, all industrialized countries accept the scientific basis provided by the IPCC.

- ***Disagreeing on a mitigation target for 2050***

The IPCC scenarios recommend a 50% cut in emissions by 2050 to heighten the probability of stabilizing climate change below 2°C. This entails an 80% to 85% cut in industrialized countries' emissions. The G8 adopted the idea of an 80% reduction by Annex 1 countries by 2050. This target, starting in 2010, would require a 4% reduction rate per annum.

Countries that are victims to climate change (AOSIS, countries with massively populated deltas, countries threatened by desertification, as well as Least Developed Countries) have strong demands. Lesotho's submission on behalf of all LDCs requests a 95% reduction target by 2050 for industrialized countries. The NGOs also support this target. However, there is no consensus on this target and doubts with regard to its technical feasibility.

The United States informally proposed that each country take on a national target for 2050, in the form of a low-carbon 2050 strategy.

- ***Mid-term mitigation targets, marking the way to a 50% cut in emissions by 2050***

Developing countries are using IPCC recommendations as a scientific argument to push developed countries to make commitments. The G77 requested that industrialized countries mitigate their emissions in the range recommended by the IPCC (-25-40% by 2020), even for countries that object to the Kyoto Protocol (i.e. the USA).

### **3.3- The issue of equity**

There are four main visions of equity.

- ***A historical approach to equity***

A vision of equity based on historical responsibility is strongly advocated by India and Bolivia in particular. Industrialized countries are responsible for the strong increase in GHG concentration in the atmosphere. They consequently contracted an ecological debt they should pay 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 principles of equity and differentiated responsibility among countries 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-Annex 1 countries as perfect equity would require differentiating contributions *among* developing countries too.

Equity was discussed this year, but mainly in the non-governmental arena. Otherwise:

- 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 on political alliances.

- ***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 cannot be considered a fair distribution of the burden. The EU on the other hand 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:

- Non-complying countries are announcing bigger emission reduction targets for 2020 but at the same time, also 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.

- ***An ethical approach to equity***

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

**The « Greenhouse Development Right (GDR) », 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 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 the basis of the technical approach to equity. To date however, the large number of publications has not led to consensus on fair allocation criteria. 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.

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.

***Zoom: 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>/GDP or energy consumption/unit produced.

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

The two previous approaches are result-based. A vision of equity based on the means of implementation was 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 compatible with this approach of equity.

## 4. THE STAKES BEHIND THE MITIGATION TARGETS

● **4.1- Developed countries on the way to reaching their 2012 targets: 1990-2007**

The main difficulty lies in the gap between emission trends and the Kyoto trajectory in major countries: namely, Canada, USA, Australia, and a number of European countries (cf. tables below). Many countries are so far behind that it will prove very difficult for them to reach 2020 targets.

If annex B 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 (therefore, asked to make commitments for the second period): Turkey, Mexico, and South Korea. Achieving any target above 30% by 2020 is unrealistic.

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

The following tables illustrate the countries' performances as well the growing gaps in compliance between 1990 and 2007.

## Likely results by Annex B countries by COP 15

**Table 1. European Union results in 2007 (source: UNFCCC statistics)**

European Union member states	Kyoto target	Emission level in 2007, compared with 1990 without LULUCF	Gap with Kyoto target	Emission level in 2007, compared with 1990 without LULUCF	Gap with Kyoto target
<b>Germany</b>	-21%	-21,30%	-0,30%	-20,80%	0,20%
<b>Austria</b>	-13%	11,30%	24,30%	7,60%	20,60%
<b>Belgium</b>	-7,50%	-8,30%	-0,80%	-8,50%	-1,00%
<b>Bulgaria</b>	-8%	-43,30%	-35,30%	-46,40%	-38,40%
<b>Denmark</b>	-21%	-3,30%	17,70%	-5,60%	15,40%
<b>Spain</b>	15%	53,50%	38,50%	55,30%	40,30%
<b>Estonia</b>	-8%	-47,50%	-39,50%	-60,30%	-52,30%
<b>Finland</b>	0%	10,60%	10,60%	0,00%	0,00%
<b>France</b>	0%	-5,30%	-5,30%	-11,80%	-11,80%
<b>Greece</b>	25%	24,90%	-0,10%	25,20%	0,20%
<b>Hungary</b>	-6%	-34,80%	-28,80%	-36,40%	-30,40%
<b>Ireland</b>	13%	25,00%	12,00%	22,60%	9,60%
<b>Italy</b>	-6,50%	7,10%	13,60%	7,40%	13,90%
<b>Latvia</b>	-8%	-54,70%	-46,70%	-478,30%	-470,30%
<b>Lithuania</b>	-8%	-49,60%	-41,60%	-59,70%	-51,70%
<b>Luxembourg</b>	-28%	-1,60%	26,40%	-6,00%	22,00%
<b>The Netherlands</b>	-6%	22,10%	28,10%	-2,10%	3,90%
<b>Poland</b>	6%	-30,00%	-36,00%	33,20%	27,20%
<b>Portugal</b>	27%	38,10%	11,10%	30,80%	3,80%
<b>Czech Republic</b>	-8%	-22,50%	-14,50%	-21,60%	-13,60%
<b>Romania</b>	-8%	-44,80%	-36,80%	-52,40%	-44,40%
<b>United Kingdom</b>	-12,50%	-17,30%	-4,80%	-17,80%	-5,30%
<b>Slovakia</b>	-8%	-35,90%	-27,90%	-38,30%	-30,30%
<b>Slovenia</b>	-8%	1,90%	9,90%	-20,30%	-12,30%
<b>Sweden</b>	4%	-9,10%	-13,10%	12,70%	8,70%
<b>European Union (15)</b>	-8%	-4,30%	3,70%	-5,60%	2,40%

Source : FCCC/SBI 2009

The figures show serious gaps in compliance accumulated since 1990 that will prove hard to catch up. The situation is particularly critical for Spain, Greece, Portugal, Italy, Austria, and Finland.

The European Union (EU) will most likely achieve its Kyoto target (-8% for EU-15 without the recent members). The EU will be one of the only Kyoto Protocol parties to reach its target.

**Table 2. Annex B results in 2007 (without LULUCF) and likely variations in 2009**

Country	Kyoto target (%)	Emission level in 2007, compared with 1990 without LULUCF	Per capita emissions in tCO <sub>2eq</sub> (2005)	Likely rate 2008-2009	Likely emission level in 2009 (base 1 = 1990)	Variation in 2009 compared to 1990
European Union 27	-8%	-4,3%	8,98	-1%	0,94	-6%
United States	-7%	16,8%	19,87	0%	1,17	17%
Canada	-6%	26,2%	17,30	1%	1,29	29%
Australia	8%	30,0%	18,71	1%	1,33	33%
New Zealand	0%	22,1%	8,58	0%	1,22	22%
Russia	0%	-33,9%	10,95	1%	0,67	-33%
Norway	1%	10,8%	8,41	0%	1,11	11%
Switzerland	-8%	-2,7%	6,32	-1%	0,95	-5%
Japan	-6%	8,2%	9,77	-1%	1,06	6%

Sources: FCCC/SBI 2009 and WRI 2005 (for per capita emissions)

**Table 3. Annex B results in 2007 (with LULUCF) and likely variations in 2009**

Country	Kyoto target	Emission level in 2007, compared with 1990 with LULUCF	Per capita emissions in tCO <sub>2eq</sub> (2005)	Likely rate 2008-2009	Likely emission level in 2009 (base 1 = 1990)	Variation in 2009 compared to 1990
European Union 27	-8%	-5,6%	8,98	-1%	0,93	-7%
United States	-7%	15,8%	19,87	0%	1,16	16%
Canada	-6%	46,7%	17,30	1%	1,50	50%
Australia	8%	82,0%	18,71	1%	1,86	86%
New Zealand	0%	18,3%	8,58	0%	1,18	18%
Russia	0%	-40,3%	10,95	1%	0,61	-39%
Norway	1%	-22,0%	8,41	0%	0,78	-22%
Switzerland	-8%	0,5%	6,32	-1%	0,99	-1%
Japan	-6%	8,2%	9,77	-1%	1,06	6%

Source: FCCC/SBI 2009

The tables highlight strong discrepancies among industrialized countries. A simple typology can explain these typologies: there are “empty” and “full” countries.

- « **Full** » countries

A part of Annex 1 countries have high demographic density but low demographic growth, and have used up their fossil fuel resources. This category includes Europe (excluding Russia), Japan, New Zealand.

The oil crises in the 1970s created a shock in the countries affected. Europe and Japan discovered they were vulnerable without access to fossil fuel resources. Faced with a serious economic crisis, these countries were forced to prospect new options to ensure economic growth and energy independence and developed two main strategies: nuclear power and energy efficiency.

When the climate issue became big at the end of the 1990s, Europe and Japan went back to the policies implemented after the oil crises. The change of paradigm did not happen in Kyoto in 97 but in 73.

- « **Empty** » **countries**

In contrast, a second group contains the countries strongly industrialized but with low demographic density: namely, the US, Canada and Australia. The perception of “unlimited space” translates into wasteful urban energy consumption.

These countries are well provided with energy resources and consequently, did not experience the oil crises in the 1970s. Because they have a weak demographic density, “empty” countries do not experience saturation. Strong demographic growth and economic stimulus allow them to overcome any hindrance. The climate issue is the first real limit they are confronted to.

#### ● **4.2- New commitments within the Kyoto Protocol for industrialized countries**

- **Proposals regarding article 3.9 of the Kyoto Protocol**

Although the Kyoto Protocol does not have an end date, its annex B's is due in 2012. Initially, the current round of negotiation aimed to set new commitments for the post-2012 period.

Article 3.9 (relative to the annexes) of the Kyoto Protocol enables Parties to renegotiate targets for the next period. The proposals mostly suggest table annexes to replace the table of quantified targets currently in annex B of the Protocol. None of the proposals question the Annex 1/non Annex 1 classification. Also, all of the proposals assume that the United States will ratify the Protocol.

Most of the proposals choose to end the second period between 2017 and 2022. Most of the options suggest the division of the next commitment period into two sub-periods, 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.

The proposals also reflect on the nature of the table, which would be a legally-binding document containing the countries' commitments.

- **Targets proposed by Annex 1 countries before the Copenhagen conference**

Apart from the US, countries agree that the KP was a major step forward because it included GHG mitigation commitments. In a number of proposals, Annex 1 countries put forward possible targets for the second period. In a joint submission, Australia, Belarus, Canada, EU, Iceland, Japan, New Zealand, Norway, Russia, Switzerland and Ukraine made the following proposal regarding a possible target for 2020.

**Table 4. Proposals made in a joint submission by Annex B countries up to 2020**

COUNTRY	LOW RANGE	HIGH RANGE	REFERENCE YEAR	WITH LULUCF?	STATUS
AUSTRALIA	-5%	-25% (20% via cap-and-trade & 5% of international credits)	2000	Yes	Officially announced on May 4th 2009
CANADA	-20%	-20%	2006	To be decided	Officially announced
EU	-20%	-30%	1990	Yes for -30% target	Legally adopted
JAPAN	-15% (national mitigation effort)	-25% (with offsets)	2005	Yes for the -25% target	Announced in September
NEW ZEALAND	-10%	-20%	2006/1990	Yes based on the current LULUCF rules	Announced in Bonn
NORWAY	-30%	-40%	1990	Yes based on the current LULUCF rules	Announced in Bangkok
SWITZERLAND	-20%	-30%	1990	Yes	Will adopt the EU target
UKRAINE	-20%	-20%	1990	?	Currently discussed
UNITED STATES <sup>2</sup>	-1%	-17%	2006	Yes	To be adopted in Congress (Waxman-Markey)
RUSSIAN FEDERATION	-10%	-15%	1990	?	Announced by Medvedev

- ***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 by 2020 in the 25-40% range recommended by the IPCC.

- ***The base year issue***

It is extremely difficult to compare efforts that are calculated according to different base years. More a country is far from reaching its target, the more it is demanding of a more recent base year (US, Canada, Australia).

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<sup>2</sup> In the American case, the commitment could be national (voted in Congress).

- Absorption of carbon by the soil and the biomass**

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 relies heavily on LULUCF, on the condition that changes in carbon sinks due to bushfires are not taken into account. Canada, Japan and the EU (for its -20% target) are the only countries to achieve their targets without including LULUCF.

### 4.3- A stilted situation

There were stormy discussions regarding the aggregate targets proposed by countries (cf. table 6): indeed, they only add up to a meager 19-23% reduction of emissions by 2020 compared to 1990 levels, far from the -25% to -40% reduction range recommended by the IPCC, from the -40% target demanded by China + 37 other developing countries, and even further off from the -45% target requested by AOSIS. These targets may however prove difficult to achieve in 10 years.

**Table 5. Results in 2020 based on the targets put forward by Annex B countries**

Pays	Base year for target	Current emission trends (base 1=1990)	Lower target range (%)			High target range (%)		
			Low 2020 target based on country's selected reference year	Target calculated according to 1990 levels	Variation compared with 1990 levels	High 2020 target based on country's reference year	Target calculated according to 1990 levels	Variation compared with 1990 levels
European Union 27	1990	1	-20%	0,80	-20%	-30%	0,70	-30%
United States	2005	1,173	-1%	1,16	+16%	-17%	0,97	-3%
Canada	2006	1,479	-20%	1,18	+18%	-20%	1,18	+18%
Australia	2000	0,827	-5%	0,79	-21%	-25%	0,62	-38%
New Zealand	1990	1	-10%	0,90	-10%	-30%	0,70	-30%
Russia	1990	1	-20%	0,80	-20%	-25%	0,75	-25%
Norway	1990	1	-30%	0,70	-30%	-40%	0,60	-40%
Switzerland	1990	1	-20%	0,80	-20%	-30%	0,70	-30%
Japan	2005	1,124	-15%	0,96	-4%	-25%	0,84	-16%

- Possible reasons why Annex B countries are proposing weak targets**

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

- The large gaps between most Annex B countries' 2012 targets and current emission trends imply that the second commitment period will only achieve 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;
- Most countries are postponing the national public debate on the role of each citizen in terms of energy and transport efficiency;
- 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.

2020 targets (except the EU's) merely aiming to reach 1990 emission levels would be perceived by the world's public opinion as a failure and would prevent emerging and developing countries from making further steps forward.

**Pressure from the scientific community, the public opinion, NGOs and the developing world could push industrialized countries to make up for their weak targets with convincing offers on other stakes.**

#### ● **4.4- What feasible and realistic progress can developed countries achieve?**

- **A 3% mitigation rate per annum**

The French 2005 POPE bill sets a 3% GHG emission reduction rate, starting in 2005<sup>3</sup>. The highest reduction rates ever sustained in France were:

- A net 1.2% per annum (a gross 3%) from 1973 to 1986 during the oil crises;
- A net 3.7% per annum between 1979 and 1986 with the development of a nuclear program and intense energy savings. A similarly high rate could contribute to reduce emissions below 2 tCO<sub>2</sub> per capita by 2050.

Such high figures could prove unfeasible for a strongly-emitting country that chose to postpone its mitigation policy.

##### **Methodology: net and gross reduction rates**

A country with a 3.5% yearly economic growth that decides to reduce its GHG emissions should:

- On one hand, absorb additional emissions induced by its economic growth (2% per year with a carbon intensity below 1);
- On the other hand, develop activities (energy substitutions, energy savings...) to reduce emissions.

Based on a hypothetical net 3%/year reduction target, the gross reduction level (i.e. absorbing the effects of economic growth) will be  $0.97 \times 0.98 = 4.94\%$ .

Realistically, improving carbon intensity by more than a net 3% will prove very difficult on a short period. Achieving an 80% 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.

Four 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;
- Massive development of renewable energy resources;
- 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 ten years.** This time span is too short to make heavy investments and to build up new economic and technical channels.

- ***Factors differentiating among countries***

Once the emissions are represented in a comparable manner (2007 UNFCCC figures), a number of factors to differentiate A1 countries should be taken into account ensure a fairer distribution of the mitigation effort.

<sup>3</sup> Using the following formula:  $0.97^{45} = 0,2539$  to divide France's emissions by 4.

The main differentiating factors are:

#### ***The initial situation***

The more a country acts to tackle climate change, the less the elbow room for further emission reductions. In practice, countries are not in this situation yet because there is a lot of potential in the sectors of transport, buildings and renewable energy resources.

#### ***Different infrastructures for electricity production***

On one hand, fossil fuel production: coal, gas and (more rarely) oil- on the other, nuclear, hydroelectric and renewable electricity.

#### ***Energy efficiency potential in different sectors of activities***

There are major discrepancies among sectors in different countries.

#### ***Individual behaviors***

Some countries have more extensive lifestyles (United States, Australia, and Russia) and should be differentiated.

#### ***Demographic density and growth on the territory***

Countries with high birth/immigration rates but low territorial density tend to experience stronger emission growth and stronger carbon intensity.

#### ***The scale and types of agricultural practices and forests***

Agricultural practices affect the levels of methane emissions as well as the CO<sub>2</sub> absorption capacity

There are three exogenous factors:

- Unstable energy prices,
- Current and future compensation mechanisms (CDM...),
- Accountability of carbon sinks.

#### ***Elbow room in countries according to sectors***

**Table 6. Estimating the potential energy saving in each sector at the national level**

	Energy production			Energy efficiency				Behaviours and land planning
	Electricity production	Energy substitution	Renewable energy	Industry	Buildings	Transports	Agriculture and forests	
France								
Germany								
United Kingdom								
Italy								
Spain								
European Union								
United States								
Canada								
Japan								
Australia								
New Zealand								
Russia								

Low potential available	
Medium potential available	
High potential available	

It is extremely difficult to assess the latitude in each country, even more so considering the weight of each sector varies strongly from one country to another.

- ***Elbow room in time***

This factor is more important than the last. No matter how willing negotiators and NGOs will ever be, the time spans required to make heavy investments, to renew equipment and appliances, to build networks of infrastructure or to develop and disseminate research.

The following table shows the timeframes required to implement different policies. The policies are hypothetically launched the same year.

**Table 7. Timeframe required when implementing energy and economic policies**

	Less than 2 years... if the effort is stable	5 years	10 years	15 – 25 years	Circa 50 years
<b>Soft policies:</b> Behaviors, taxes, regulation	Education, professional training, awareness raising, work methods	Taxes, price mechanisms, capacity-building	Well-trained youths placed in advanced technical jobs		
<b>Appliances used for daily consumption</b>		Lighting, computer equipment renewed	Household appliances renewed	Car stock renewed, heating appliances renewed	
<b>Infrastructures</b>			Public transport system	Structured networks	Renovated housing stock Heavily structured transport network
<b>Electricity production</b>		Significant policies for renewable energy resources	Construction of heavy production and transformation appliances.	Electricity stock renewed	
<b>Industrial plants</b>		Changes in fuels; energy savings	Light industrial plants renewed	Changes in industrial processes used in research	
<b>Research outcomes</b>			Delay required to massively diffuse new appliances on the market		

Short term actions can accelerate the structural change, however these are more costly and their impact rarely sustainable on the longer term. It is more cost-efficient and energy-efficient to build long term equipment/appliances.

This simplified representation structures implementation into 3 timeframes:

- In less than 5 years: only soft measures and light investments will have impacts. These impacts will be “light”. Training professionals and investing in energy savings are effective soft measures.

- Beyond 10 years, the heavy investments launched should be giving their first results. In the meantime, all daily consumer appliances should be renewed.
- In a 20 to 25-year timeframe, our societies have the capacity to change: heavy infrastructures and networks and broadly disseminated new technologies.

- ***Emerging countries***

The abovementioned factors and timeframes cannot apply to emerging countries. Other factors should be taken into account:

- Different social categories: China, for example, has three social strata – 100 million people living a Western life style; a few 100 million people defined as low-middle or urban working class and part of an industrialized society; and a few hundred million people that rely on a subsistence economy. Consequently, uniform rates cannot apply regarding consumption patterns and emission trends.
- The energy context and industrial situation.

### ***4.5- The dangerous temptation to reach agreement with unfeasible 2020 targets***

If Annex 1 countries agreed to set unfeasible targets over the 2012-2020 commitment period, it would weaken trust and credibility among parties. Also, in the case of unfeasible targets, economic stakeholders and local governments would not be able to implement the actions to reach the targets in such a short period of time.

The following conclusions can be drawn for this situation:

- A strong target over a short time span is unfeasible: i.e. the -40% by 2020 requested by NGOs and developing countries is unfeasible and would only create further social tension;
- A strong target over a long period of time is feasible, but only if the commitment is made soon;
- A review every 5 years is needed to avoid delaying tactics and let proactive countries know their efforts are worthwhile because comparable and simultaneous.
- A system of credible financial penalties could be established, based on the principle of responsibility: countries that do not comply with their targets could be required to contribute more to the Adaptation Fund, as a means to compensate for further impacts that they are indirectly responsible for.
- Any short term gains should be optimized to save time: soil and biomass carbon storage, actions to mitigate methane emissions...

- ***One option left: two commitment periods***

There cannot be a successful outcome if it does not include the following principles:

- Countries must stick to the emission trends recommended by the scientific community and required to stabilize climate change. Further uncontrolled increases in emission trends will be more difficult to make up for and could lead to serious human and environmental impacts.
- Industrialized countries that are not complying with their mitigation targets will need to get back on track, and cannot do so in the 2012-2020 timeframe.

**Based on these principles and on the conclusions in 4.5, only one option seems feasible and credible: industrialized countries could make mitigation commitments today for the next two commitment periods (i.e. 2012-2020 and 2020-2030).**

To achieve a 50% cut in their emissions, industrialized countries will need to mitigate emissions at a 3% rate per annum (cf. the next table). The 3% rate could be the global target set in Copenhagen for industrialized countries

## Simulating possible emission trends for developed countries in the 2020-2030 timeframe

Based on the previous analysis, the per annum emission reduction rate for some countries should be up to 3%. To remain within the emission path recommended by the IPCC, some countries will need to commit to a 3% emission reduction rate by 2030.

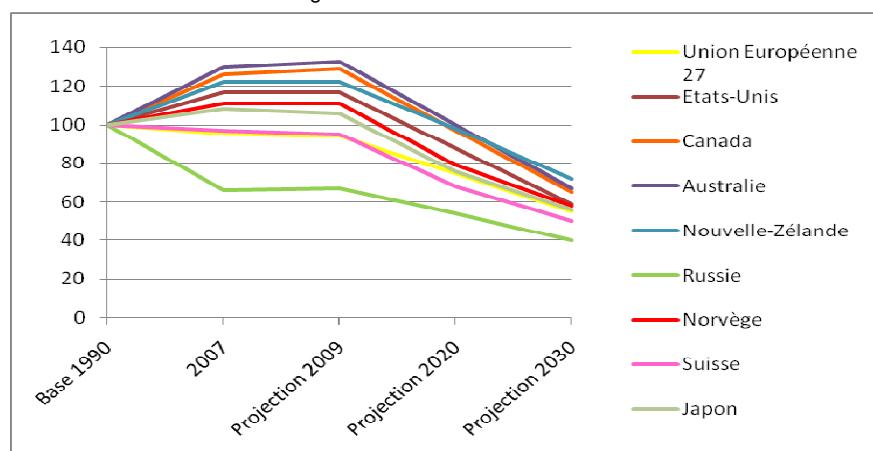
**The tables are based on the following hypotheses:**

- **A 3% mitigation rate,**
- **A first commitment period: 2010-2020**
  - Slower progress for countries that have no yet launched mitigation policies (due to inertia);
  - Lower mitigation rates for the EU and Russia by 2020, because their emission paths are consistent with IPCC recommendations;
  - A distribution of commitments among member-states of the EU once the agreed outcome is adopted. The values used in the tables are based on the EU's announced target range (20 to 30%).
- **A second commitment period: 2020-2030**
  - Stronger emission reduction targets for countries characterized by high per capita emissions and far behind in terms of energy efficiency

**Table 8. Simulating situations in 2020 and 2030 (excluding LULUCF)**

Country	Rate used for simulation 2010-2020	Situation in 2020 compared with 1990 levels	2009-2020 variation	Mitigation rate chosen for 2020-2030	2020-2030 variation	2010-2030 variation	1990-2030 variation
European Union 27	-2,0%	0,75	-25%	-3%	-26%	-41%	-45%
United States	-2,5%	0,88	-12%	-4%	-34%	-50%	-41%
Canada	-2,5%	0,97	-3%	-4%	-34%	-50%	-35%
Australia	-2,5%	1,00	0%	-4%	-34%	-50%	-33%
New Zealand	-2,0%	0,98	-2%	-3%	-26%	-41%	-28%
Russia	-2,0%	0,54	-46%	-3%	-26%	-41%	-60%
Norway	-3,0%	0,79	-21%	-3%	-26%	-47%	-42%
Switzerland	-3,0%	0,68	-32%	-3%	-26%	-47%	-50%
Japan	-3,0%	0,76	-24%	-3%	-26%	-47%	-44%

Source: based on FCCC/SBI 2009 figures

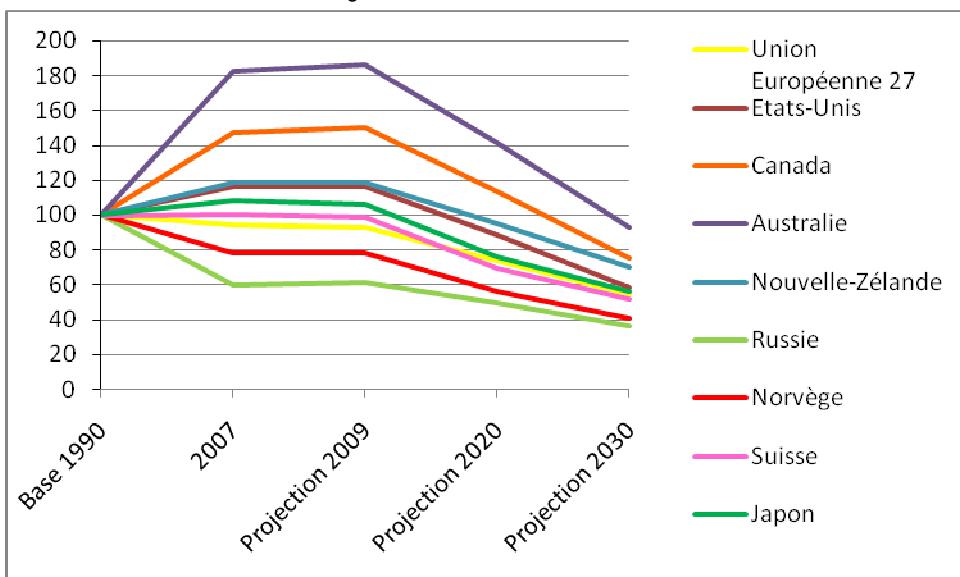


Source: based on FCCC/SBI 2009 figures

**Table 9. Simulating an agreement in 2020 and 2030 (including LULUCF)**

Country	Rate used for simulation 2010-2020	Situation in 2020 compared with 1990 levels	2009-2020 Variation	Mitigation rate chosen for 2020-2030	2020- 2030 Variation	2010-2030 Variation	1990-2030 Variation
European Union 27	-2,0%	0,74	-26%	-3%	-26%	-41%	-45%
United States	-2,5%	0,88	-12%	-4%	-34%	-50%	-42%
Canada	-2,5%	1,13	13%	-4%	-34%	-50%	-25%
Australia	-2,5%	1,41	41%	-4%	-34%	-50%	-7%
New Zealand	-2,0%	0,95	-5%	-3%	-26%	-41%	-30%
Russia	-2,0%	0,49	-51%	-3%	-26%	-41%	-64%
Norway	-3,0%	0,56	-44%	-3%	-26%	-47%	-59%
Switzerland	-3,0%	0,70	-30%	-3%	-26%	-47%	-48%
Japan	-3,0%	0,76	-24%	-3%	-26%	-47%	-44%

Source: based on FCCC/SBI 2009 figures



Source: based on FCCC/SBI 2009 figures

## 5. ACTION FOR ADAPTATION

### ● 5.1- The Millennium Development Goals and climate change



In poorer countries, global warming is at the very bottom of the long list of daily emergencies. Indeed, access to development is identified as a priority over environmental concerns. In 1987, the Brundtland Report<sup>4</sup> defines environmental sustainability as a requirement for further development.

In 2000, the Millennium Development Goals (MDG) were adopted in New York by the UN General Assembly. The MDGs define environmental sustainability as one of the 8 conditions to socioeconomic development. Indeed, the environment is a

<sup>4</sup> The Brundtland Report, "Our common future" published by the UN in 1987.

factor of development in the farming and forestry sectors, and in the mining, industrial, tertiary, urban or touristic sectors.

Furthermore, the 2007/2008 UNDP Human Development Report established direct ties between climate change and the Millennium Development Goals.

- **Farming:** in order to end hunger, crop yields need to increase, farming activities need to be managed more efficiently, irrigation, access to farming machinery, and most importantly, good climatic conditions are required. Adapting agriculture to new climate conditions and shifting to more sustainable farming techniques are progressively becoming the means to tackle hunger worldwide.
- **Water consumption and supply** are directly linked to gender issues: women and children are often in charge of collecting water and firewood on a daily basis, hence reducing time availability for education and remunerated activities). Water consumption is also tied to health issues (spread of diseases induced by non-drinking water and lack of sanitation, further promoted by the scarcity of firewood to boil water).
- **A number of diseases** are directly linked to environmental factors in developing countries (up to 20%) and can therefore be easily prevented. Furthermore, research is developing the use of natural and herbal medicine, based on local biodiversity.

Many global environmental problems (eg. climate change, loss of species diversity, depletion of global fisheries) can be solved only through partnerships between developed and developing countries. The level of education and social cohesion are other factors of development. The fight against climate change entails deep changes in terms of access to technologies, economic policy, individual and collective lifestyles. It will thus require cultural and educational progress in all societies.

- ***Successive phases of development and emission paths***

Developing countries are focused on improving their populations' wellbeing. Does this mean they should tackle the issue of climate change at a later stage of their development process or deal with it now? In any case, the correlation between development and increasing GHG emissions is not linear. The development process can be divided into five major phases, characterized by different levels of GHG emissions:

- **In the first phase**, the society is pre-industrial and its population is stable. The society does not have access to other energy resources than biomass. In these conditions, the GHG emissions induced by cooking, farming and forestry activities are offset by the absorption of CO<sub>2</sub> by plant photosynthesis.
- **In the second phase**, the society enters a phase of demographic growth and forests may undergo more pressure (clearing and slash-and-burn practices). Emissions could increase faster than the rate of CO<sub>2</sub> absorption by plants. Developing countries affected by deforestation tend to have high CO<sub>2</sub> emission trends.
- **The third phase** triggers the beginning of socioeconomic development with changes in consumption patterns and increased demand for well-being: decent housing, a diversified diet, and motorized transportation infrastructures - which require heavy industries and a structured energy access. This phase induces a strong increase in GHG emissions, generally disproportionate in regard with the economic growth. Furthermore, the infrastructures built in this phase, and planned to last a long time, will be a decisive factor for GHG emission levels on the long term.
- **The fourth phase** consists in improving the wellbeing and consumption of households, through the development of the manufacture industry. This phase also allows to improve energy efficiency in the appliances and infrastructures, and to organize a recycling system. At this stage, energy consumption and GHG emissions increase at a slower rate, while economic development increases rapidly.
- **The last phase-** the one advanced industrialized countries are currently in- consists in the progressive dematerialization of the economy and the development of services and communication activities. Growth in energy consumption and GHG emissions can be counterbalanced by advanced energy efficiency. In this phase, mitigation actions should particularly focus on the increasingly-emitting transport sector.

Thus, it is not that paradoxical to support the idea of saving energy or mitigating climate change in countries that are only in their first stages of development, and thus, even though they currently consume very little energy, and scarcely emit greenhouse gases.

**Therefore, developing countries must start acting today** for the following reasons:

- ❖ Emissions drastically increase in the first phases of development;
- ❖ Some infrastructural investments can span a century (buildings, industrial sites, transport infrastructures), and the initial choices made will be decisive.
- ❖ Future energy prices will tend to increase, and become an increasing burden for the economy of the countries dependent on fossil fuels. There will be growing tension between the increasing demand for energy by a larger number of countries, and the depletion of resources, also more and more costly to extract. In energy-inefficient countries, the prices of energy would become a major hindrance to further socioeconomic development.

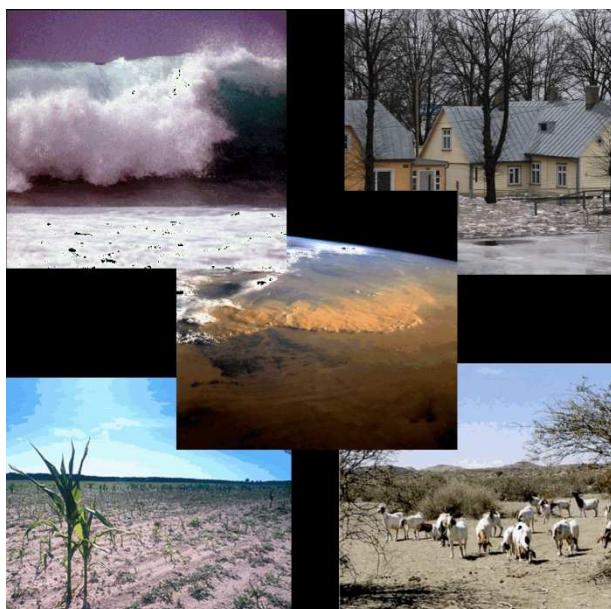
It is crucial that developing countries be supported with finance and technology to take a low-carbon step to the next phase of their development. Engaging on energy-efficient development path at an early stage will give a number of economic advantages, and will accelerate the country's economic development.

Those who take early action will prove to be most economically ambitious. Indeed, climate change has great economic potential for early investors. If the global market focuses on energy efficiency and clean technologies and favors low-carbon processes, emerging economies exporting on the global markets will have an economic incentive to adapt their industrial and manufacturing processes and consequently, be leaders on the low-carbon and climate-resilient market. The poorest countries do not share this economic rationale because they have little access to global markets. **In its first stages, sustainable socioeconomic development will heavily rely on international aid, favorable bilateral and multilateral agreements, political will and strong institutional support.**

## ● **5.2- Action for adaptation to climate change**

The climatic challenge is a global process and ignores national boundaries. A number of countries have fallen victim to climate change, and may lose part of their territory to the rising ocean waters or to a climate-related disaster they cannot prevent from happening. Other countries will be asked to take in the first "climate refugees", victims to the fast-diminishing water resources and fast-waning farm yields. Adaptation is becoming a crucial issue and if addressed, could limit the cost of mitigation.

- ***Adaptation is unanimously acknowledged as a crucial issue***



Credit: Potsdam Institute for Climate Impact Research

In the past years, the number of serious climate-related disasters has drastically increased (eg. flood in Bangladesh and Burma, heat-wave in Europe, Katrina cyclone in New Orleans...). These events and the outcry of NGOs worldwide contributed to raise citizen awareness on the vulnerability of many countries (namely, Small Island Developing States, low-lying coastal countries and arid countries) to climate change.

For these extremely vulnerable countries, adaptation is a deal-breaking component for a fair agreement. It requires serious financial and operational capacity.

The issue of adaptation moved forward during the last negotiation sessions and the text cut down to 9 pages and substantially modified. The new and legally-drafted text could be used as a negotiation basis for an agreement on adaptation in Copenhagen.

Unfortunately, the issue of adaptation does not interest contributing countries as much as it does recipient countries. Developed countries are more intent on the mitigation potential in developing

countries than on adaptation actions. Indeed, from their perspective, mitigation actions can directly curb emission trends and hence, curb the change in climate and consequently, reduce the need for adaptation measures. Furthermore, they argue that mitigation actions can also benefit all countries and are cost-efficient whereas adaptation primarily addresses a social concern in recipient countries (in the short term).

- ***Adaptation actions***

17 years of planning and building capacities later, developing countries are demanding an agreement to *implement adaptation actions*. The debate on implementation raises two questions: what defines an adaptation action? Should all actions be eligible for funding?

The adaptation actions implemented in each country will strongly depend on local needs and specificities. This makes it difficult to establish a uniform nomenclature of actions to be matched with funding. Some actions are of an organizational nature and require little funding; other actions will be expensive with a long-term return on investment. The organizational, regulatory and behavioral measures cost less but require major educational and democratic improvements to be efficient.

The large range of actions implemented is directly linked to the discrepant needs of countries. These needs depend on the country's exposure to risk, the level of development, the geographical conditions and the type of economic activity. Adaptation covers a wide range of issues and challenges.

The most recent negotiating text on adaptation drafts a sort of nomenclature of actions, without specifying the means of funding for each category:

- Planning and implementing of adaptation actions on the short and long term, at the sub-national and national level;
- Actions identified in the National Action Plan for Adaptation (NAPAs), National Communications (NC), Technology Needs Assessments (TNAs), strategies for poverty reduction;
- Impact and vulnerability assessments, and assessments for the costs-benefits of adaptation;
- Risk assessments/management/sharing: prevention, emergency, reconstruction and planning;
- Research, development dissemination, transfer and access to adaptation technologies;
- Systemic research and observations;
- Strengthen the planning and information collecting capacities, as well as implementation capacities;
- Build the environmental and social resources (economic diversification, legal and administrative actions, protection of natural resources...)
- Education, training, awareness-raising;
- Strengthen the institutional base: coordinating mechanisms, focal points, local and national institutional capacity.

Gender equality and indigenous/ancestral know-how are core components of adaptation, and should be taken into account in adaptation projects.

### **● 5.3- Issues that need to be addressed**

- ***No consensus on the definition of « vulnerability »***

Countries do not all agree on the definition of vulnerability meaning they disagree – de facto – on the scope of definition and application of adaptation. Saudi Arabia requested a broad definition of vulnerability (to climate change and to adverse effects of mitigation measures). Other countries (led by the EU) wish to delineate the perimeter of adaptation to climate change only. The last version of the negotiating text deleted all references to the “adverse effects of mitigation actions”. The contact group attempted to take the sting out by (a) giving a broad definition of vulnerability but (b) differentiating vulnerabilities in the paragraphs relative to financial and technological support.

- ***Governance and form of the agreement on adaptation?***

Since early November in Barcelona, the text narrowed the options on the nature of the agreement on adaptation down to two: a framework or a program. A framework would be more integrated but

requires further institutional arrangements. It would clearly separate adaptation from the other issues and could lead to a specific financial mechanism on adaptation. A program appears as a lighter option, focused on actions and not on financing.

On the issue of governance, the two main options in the negotiating text are the following:

- An adaptation committee with a facilitating branch, a branch for technical advice and a branch to disseminate information at the national level;
- A subsidiary body on adaptation.

#### • ***The future of NAPAs***

The future of NAPAs remains unclear. The NAPA process has been criticized by Least Developed Countries (LDCs): out of the 1.7 billion USD promised by industrialized countries (annex II) for adaptation planning and actions, only 172 million were transferred to LDCs.

There are a number of proposals on the table regarding adaptation strategies:

- A new adaptation strategy (integrated to a global development strategy);
- An adaptation window in the national sectoral plans;
- The NAPAs (however, the last text on adaptation makes little reference to NAPAs).

For the time being, only LDCs were requested to publish NAPAs. Some countries recommended extending adaptation strategies to all developing countries or even to all Parties. The idea that *all* countries have adaptation needs is making its way.

There appears to be consensus on the need for an international centre on adaptation, and on the need to reinforce regional centers on adaptation. These centers could integrate and optimize national strategies at the regional level and take the sting out of the issue on transnational resources.

#### • ***Financing for adaptation***

In Barcelona, the contact group on adaptation transferred the debate on adaptation financing over to the contact group on financing. A number of countries, namely developing countries, wanted discussions on financing to take place within the contact group on adaptation to avoid the issue becoming one of many within the contact group on financing, or the poor relation of financing for mitigation.

The needs of developing countries are estimated to be a 100 times more than the current and very weak contributions by industrialized countries. A number of studies have assessed the cost of adaptation. The estimates are very discrepant because the scope of adaptation varies from one study to another and it is difficult to distinguish costs and extra costs.

**Table 10. Estimating the annual costs of adaptation**

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

The Algerian submission on behalf of the Africa Group requests 67 billion USD per annum by 2020 for Africa's adaptation needs. Estimates by the UNFCCC and the World Bank on funding for global adaptation range from 10 to 40 billion USD.

#### • ***The nature of funds***

Developing countries have three strong demands regarding the nature of funds:

- The financial resources for adaptation should be mainly public because adaptation actions, often costly and not profitable on the short term, cannot attract private investments.

- There should be a clear distinction between public development aid and funding for adaptation. LDCs and the G77+China foresee a possible amalgam between funding for adaptation and official development assistance (ODA), and consequently, less funding globally.
- Funds should be exclusively granted and not loaned.

This is a complex issue: bilateral agencies are pushing for more convergence between adaptation and development funding; industrialized States want to develop loans and limit grants. The type of funding will depend on the amounts committed by industrialized countries.

- ***Funding for recipient countries***

A decisive component for the agreement will be choices made in terms of prioritizing funding recipients. The following questions should be addressed:

- What kind of specific care for the most vulnerable and less developed countries?
- What support for other developing countries?
- What support for countries with low-adaptive economies or territories?

The negotiators will need to find consensus on which countries should provide financing and how their efforts should be compared.

- ***Risk management and insurance***

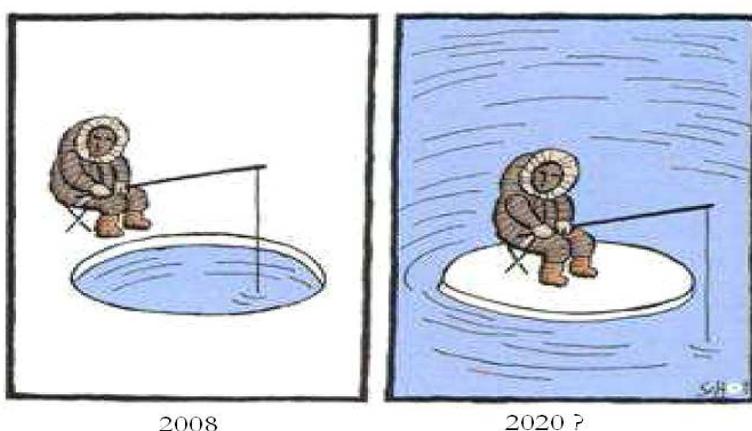
The favored proposal consists in an international mechanism with two windows: one regarding insurance and prevention; the other regarding compensation. AOSIS also submitted a proposal regarding a multi-window mechanism for risk management and insurance. There has been little debate on the issue so far, namely because of its complex nature.

- ***Possible deadlocks in the negotiation group on adaptation***

If negotiations on adaptation do not translate into actions and substantial financial commitments, developing countries will not sign the agreement. Also, if countries do not reach consensus on the criteria to allocate adaptation funding, the attribution process could end up in a deadlock.

An unsatisfying agreement on adaptation would further widen the gap between North and South. In the past years, developing countries have made it clear that until there was no real agreement on adaptation (in terms of contributions, financial means and allocation criteria), they would not sign a global post-2012 agreement.

### Learning to adapt...



## 6. NAMAS: A KEY CONCEPT FOR MITIGATION ACTIONS IN DEVELOPING COUNTRIES

### ● **6.1 – Towards low-carbon development**

The last decades experienced major crises and changes: economic globalization and further development of services and manufactured goods, the climatic threat, the realization that resources are finite and that Western lifestyles are unsustainable, the financial crisis.... These changes contribute to underline the need to find a new path to development in the course of this century. In this regard, the stakes are higher in the 21<sup>st</sup> century than in the past.

- Scientific and medical progress and access to more resources have boosted economic growth more than ever. Yet, 4/5<sup>th</sup> of humankind is not included in this growth pattern. The 21<sup>st</sup> century will need to achieve what the 20<sup>th</sup> century failed to: access to development for all.
- This crucial goal seems more and more out of reach: in 2060, the 9 billion people on the Earth forecasted by current scenarios will be –legitimately- demanding more development and comfort. Yet resources are diminishing and their cost increasing. It is crucial that we reduce our GHG emissions as well as relieve the excessive pressure on the planet's resources and ecosystems.

**In this context: what moral, technological, economical, individual and politic values can address individual expectations and collective needs?** Optimizing the use of resources could be an answer to this question. It requires a new paradigm of progress and a new paradigm of development based on low-carbon growth. Climate stabilization is in the interest of all. It is crucial that developing countries receive the supported needed to grow according to these new paradigms.

- ***The timeframe to make the transition towards a low-carbon economy***

Tackling climate change requires an understanding of the timeframes. The transition to low-carbon development will take two generations. Renewing the national stock of vehicles will take up to 15 years, converting the industrial sites will take up to 50 years, and renewing the housing stock will take about a century. The world must take action now to achieve results in 2050. The time spans should not be underestimated.

### ● **6.2- Towards low-carbon strategies**

Achieving low GHG-emitting development will require three levels of actions:

- International synergies to design and deploy generic technologies;
- Development strategies at the national level;
- Implementations and investments at the local level;

International synergies enable the deployment of technologies, crucial to push developed and developing countries on the path to low-carbon development.

As yet, legally-binding commitments make quantified emissions reductions do not apply to developing countries. However, considering the scale of the challenge and the rapidly evolving emerging economies, developing countries could play a decisive role in the global mitigation effort. A common framework with different levels of commitments would ensure long term convergence of actions. A common framework would enable parties to share ideas and coordinate actions into global programs with global benefits.

### ● **6.3 - NAMAs: principles**

The Bali Action Plan introduced NAMAs (“Nationally Appropriate Mitigation Actions”) as the core instrument for implementation of mitigation policies in non-Annex 1 countries. Since, the negotiation process on mitigation actions has built on this idea of voluntary actions by developing countries, consistent with national needs and means. However, there is no consensus on the definition of NAMAs. Countries need to come to an agreement on the technical characteristics and on the financial and validation modalities. The form of NAMAs will depend on the long-term convergence of commitments and categories of countries. Annex 1 countries want high emitting non-Annex 1

countries to take mitigation actions. The latter do not want their mitigation actions monitored and reported in regard to both input and output.

The US and Australia demanded that a new category for “economically more advanced developing countries” or “major developing countries” be established within the Convention but did not receive support from the G77. Indeed, emerging countries (namely China, Brazil, and India) do not want to question their status as developing countries and argue that the negotiation process is about enhancing the Convention and the Protocol and not about destroying their content.

De facto, there are three discussions relative to NAMAs:

- The scope of NAMAs: developing countries, led by G77+China, are favorable to NAMAs as long as they are specific to non-Annex 1 countries. There should be a “firewall” between voluntary mitigation actions by non-Annex 1 countries and mitigation commitments by Annex 1 countries (sometimes referred to as Nationally Appropriate Mitigation Commitments)<sup>5</sup>;
- The funding of NAMAs: developing countries want these voluntary actions to be supported using financial and technological transfers by developed countries. The scale of NAMAs will be in proportion with the means effectively delivered;
- The place of NAMAs: there is growing consensus on the need to integrate NAMAs in the strategy of sustainable development

Discussions on measurability and transparency and discussions on financial transfers are narrowly intertwined. Most developing countries (Algeria and South Africa) acknowledge that the NAMA instrument is well-founded but refuse to implement mitigation actions without reliable, sustainable, adequate and predictable support from developed countries. Some developing countries, led by India, object to MRV obligations for unsupported actions. In any case, a verification system regarding the delivery of international financial support will be necessary. Some developing countries (Pakistan, India, China and Bangladesh) want all NAMAs to receive financial and/or technological support; whereas other developing countries (Chili, AOSIS) also want to establish a category of “unilateral NAMAs” that would not receive support but international acknowledgment.

#### **6.4 – The nature and scope of NAMAs**

There are a number of unresolved issues regarding the scope of NAMAs:

- Should the NAMA mechanism move from a project-by-project approach (eg. CDM) to national multi-sectoral programs?
- Should/can NAMAs be comprehensive national programs of actions? China considers NAMAs to be stand-alone actions and not components of a global strategy. Other countries define NAMAs as comprehensive national programs with country-driven financial demands and priorities;
- NAMAs should be country-driven and financial backers should only be involved regarding actions filing for financial support;
- NAMAs at the sub-national level should be acknowledged by the international community (requested by Senegal in particular);
- Is a global NAMA to mitigate emissions in a full chain of activities around the world a feasible and acceptable option? In this regard, should NAMAs be clustered according to their similarities or based on the type of financial support?
- Grouping NAMAs into « national schedules » (Australia proposal) could ensure a comparable commitment by all countries but take into account national specificities. These national schedules would contain mitigation actions and emission trends;
- What are the possible links between NAMAs and CDM: let the NAMAs absorb the CDM or keep the CDM as a separate instrument?
- Should REDD+ be part of the NAMA mechanism as a means to mitigate?
- Ghana proposed the integration of NAMAs, NAPAs and Technology Needs Assessments (TNAs). It will be necessary to articulate the financial mechanisms for NAMAs and for technology transfers.
- Should mitigation policies take into account the adverse effects of response measures?

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<sup>5</sup> Indonesia suggested referring to actions by Annex 1 countries as NAMACs (Nationally Appropriate Mitigation Actions and Commitments)

## ● **6.5- NAMAs: stand-alone projects or programs?**

An international financial mechanism will deliver the funds to prior validated actions. However, developing countries object to having their national climate policies subject to international validation. Indeed, without international validation, the country could implement stand-alone projects and receive funding without waiting for the national program to be completed and validated. This is why China wants NAMAs to be stand-alone actions with no structured framework.

On the other hand, with a national program with well-identified priorities and timeframes, recipient countries could decide how to channel the funds; and mix adaptation and mitigations actions into the same program to ensure multilateral funds are not delivered only to the most cost-efficient mitigation actions.

Some countries fear that NAMAs could hide legally-binding and constraining commitments (eg. the structural adjustment plans demanded by the IMF before any financial delivery) and consequently, undermine national sovereignty.

NAMAs could be organized into categories based on their scale and scope:

### ***Stand-alone actions***

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

### ***Broader 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. In the case of sectoral actions, the local and sub-national authorities would play a decisive role.

### ***National programs***

This option entails 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. Countries could also be legally-bound to design a NAMA program. Annex 1 countries want NAMAs to become national strategies for low carbon development. In any case, the national strategy or program of actions would be implemented step by step.

## ● **6.6– Possible NAMA policies and measures**

- Energy efficiency in all uses;
- Higher quality construction and renovation;
- The development of agriculture practices that are resilient 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 through the development of 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.

## **6.7- Validating and financing NAMAs**

The debate on how to design a UN mechanism to facilitate the development of low-carbon strategies in non-Annex 1 countries raises the issue of funding and validating NAMAs. The negotiators will need to discuss the mechanism's specificities: the authorities and modes of governance, conditions of financing, monitoring of the financial delivery, nature of sanctions in the case of non-compliance with the rules.

The CDM experience showed that the criteria retained to decide on whether to fund a project or not favors some sectors, actions or countries more than others. The NAMA mechanism could be used to promote the definition and implementation of global strategies for sustainable development and identify major priorities; and act as a lever for international action in certain sectors: renewable energy resources, quality of construction, public transport systems, etc.

Financial resources to support NAMAs should be allocated according to the discrepant needs for financial resources among non-Annex 1 countries: LDCs should receive more support for their NAMAs than emerging countries. The procedures for implementation should learn from CDM mistakes and ensure that financial resources are not all channeled by the most cost-efficient and short term actions and by the most advanced developing countries.

The UNFCCC secretariat recently estimated the needs of developing countries could reach 200 billion USD per year in 2030. Clearly, the financial resources should be mixed consistently with the projects' economic potential (ODA, market mechanisms, national savings, private sector, etc.).

Some parties (the EU in particular) suggested that developed countries could fund NAMAs to offset part of their national emission reduction targets. A fair option would consist in establishing a maximum ratio of offsets compared with domestic efforts. AOSIS is however hostile to this proposal.

Another decisive issue is that of the incremental costs of the actions: article 4.3 of the Convention provides for the full costs and incremental costs. This is currently being discussed in regard to LDCs.

In practice, most NAMA projects and programs proposed as yet are development-driven with mitigation or adaptation co-benefits. In practice, it will prove difficult to channel funds separately for development and climate. The development-climate debate is a conflict of principles but should not delay the establishment and implementation of the NAMA mechanism.

- ***Validation: which criteria and what transparency?***

The CDM experience highlighted the possible perverse effects of such financial mechanisms: namely, an imbalanced and inconsistent selection in the actions and sectors and a tendency to favor actions with the highest short term return on investment (i.e. tendency to pick the low-hanging fruit from the tree). Quantifying mitigation actions is a complex methodological task. The choice of indicators to account for emission reductions will be decisive in this regard.

- ***A possible synthesis: a flexible system***

Parties could agree on different types of NAMAs. Korea, Tuvalu and Mexico proposed three categories of NAMAs:

- Unilateral NAMAs implemented by the country using national financial resources. These actions would be included in the national communications and evaluated by the national authorities;
- NAMAs with international support (UNFCCC-driven, bilateral or multilateral support);
- NAMAs funded through market-based instruments: carbon credit trading, etc. These NAMAs could be one of the mitigation instruments to reach no-lose targets (i.e. targets that are not legally-binding for developing countries. If they do better than their voluntary target, they can sell the emission credits on the market. On the other hand, they are not penalized if they do not reach the target.

The last two categories of NAMAs would be registered on a matching platform or entity in order to find investors (private or public, bilateral or multilateral).

## **6.8 – The registry and institutional arrangements**

### **• Registering and monitoring the actions**

All internationally-funded NAMAs will be registered and accounted for. The G77+China also called for the registration of NAMAs with no external financial support. An international registry could be created under the aegis of the UNFCCC.

Countries would submit their NAMAs to the UNFCCC Secretariat, including a description of the action proposed, the scale of financial resources needed and an assessment of avoided emissions based on BAU trends.

- The registry could contain, ex-ante, a list of model actions and information regarding the methodology, the quantification of avoided emissions, etc.
- An MRV procedure would monitor the implementation of the actions and the financial input/output (in the case of carbon credit trading);
- Reports every year and assessments every two years;
- Actions to transfer technologies and/or build capacities would also be measured;
- Industrialized countries would hand in a yearly report on the financial support.

### **• Institutional arrangements for NAMAs**

- A technical panel in charge of validating NAMA proposals before they are analyzed by the financial and technological support mechanism;
- A UNFCCC body for mitigation action (eg. an executive body on mitigation finance and technology);
- National agencies in charge of (a) coordinating and designing actions (sectoral/programmatic approach), (b) aggregating the local actions at the national level, (c) verifying the conformity of the NAMAs with UNFCCC guidelines. These agencies would also strongly involve the public and private sector and ensure a fair and efficient use of the funds.

## **6.9 – The transition period between 2010 and 2012**

In the three years after Copenhagen and before the post-2012 regime enters into force January 1<sup>st</sup> 2013, a preparatory phase could help stakeholders and countries get ready for the new regime, and test the institutions and instruments.

The developing countries that benefit most from the new mechanisms and instruments will be those best prepared, with well-designed NAMAs. The transition phase could be decided via a legal COP decision in Copenhagen and start immediately ("prompt start" phase). Actions registered during this period would be validated ex-post, once the rules are well-established. This is a crucial question with regard to equity. LDCs need a preparatory phase to get used to the new mechanisms and ensure they have a fair access to these mechanisms, unlike what happened with the CDM.

### **• The need for intensive preparation in Africa**

Countries want to take action. However, actions need to be well-planned and require sectoral pre-assessments with regard to both adaptation and mitigation. These studies will prove crucial, particularly in African countries. Indeed, it is likely COP 16 and 17 will work on organizing NAMAs and assessing the scale of financial contributions to be delivered by each channel. To do this, sectoral studies will prove a useful basis.

## **6.10 – The risk of a failed outcome on mitigation**

The negotiation process on mitigation could fail, due to:

- Mistrust among parties because the mechanism is too complex;
- Untrusting developing countries because industrialized countries are too picky on the actions they decide to finance, similarly to what happened with the CDM;
- Excessive financial demands made by developing countries (for example, a demand for financial contributions of all actions) and thus, incompatible with the financial resources of industrialized countries;

- Inequitable access to the mechanism.

Most of these difficulties can be addressed with time. The mechanism could be progressively detailed and arranged in the course of the climate meetings, once it is established.

## 7. REDD+: REDUCING EMISSIONS FROM DEFORESTATION AND DEGRADATION

Countries agree on the significance of deforestation, which accounts for 20% of global GHG emissions.



Deforestation in the State of Rondonia, North-South of Brazil

At COP 11 in 2005, Papua New-Guinea (PNG) - supported by Costa Rica and eight other countries - proposed a REDD mechanism. A number of proposals have been submitted by Parties since. The Bali Action Plan<sup>6</sup> recognizes the need to include REDD in the post-2012 regime. Although the REDD contact group is making more progress than others, divergences remain on a number of specific modalities.

In Barcelona, the negotiating text was condensed and streamlined but does not address one of the most delicate issues: the mechanism's scope.

There are four options on the table regarding the scope of the deforestation mechanism:

- RED: the scope is limited to actions regarding deforestation;
- REDD: it includes actions to tackle forest degradation (for example, replacing old-growth forest with new-growth forests to produce bio-fuels);
- REDD+: it further includes carbon storage in the forests and Sustainable Forest Management;
- REDD++: it also covers carbon storage in agricultural soil.

**There seems to be more and more consensus on REDD+<sup>7</sup>.** It is crucial to reach an agreement as soon as possible to start a transition phase. It could be included in the post-2012 agreement at a later stage.

The REDD+ mechanism will need to clarify four key points - scope of application, reference scenario, scale, and source of financing – to develop an institutional framework and establish modalities for the preparation of projects and financial transfers required.

## **7.1- Integrating the aims of REDD+ in the shared vision**

The shared vision that will contain the global climate goals should also include goals relative to deforestation. Specific objectives could be the following:

- 50% cut in tropical deforestation by 2020,
- Global forest cover stabilized by 2030

Brazil and Indonesia recently took a big step forward by committing to reduce deforestation respectively by 80% and 26 to 41% by 2020.

However, it is difficult to foresee the nature of the text that will come out of Copenhagen: new protocol or COP decisions? If Copenhagen fails, it is crucial that the REDD+ negotiations keep moving forward. To ensure REDD+ remains an autonomous process, could it and should it be kept separate from the global legal outcome?

There are two possible scenarios:

- A botched mechanism: it could lead developing countries to reject a REDD+ agreement. In that case, financing would be channeled towards emerging countries which offer further financial security.
- Forested Least Developed Countries (LDCs) need a preparatory phase to build their institutional capacity and prepare their actions and programs. They need an agreement soon to launch this preparatory phase and avoid repeating the mistakes made in the CDM negotiating process.

It is urgent to take action. Therefore, if no legal text comes out of Copenhagen, countries should nonetheless launch a pilot-phase of REDD actions as early as 2010. The best solution would be to implement "prompt start" actions, based on a COP decision on the key points of the REDD+ mechanism. These actions would be integrated in the post-2012 agreement, to be finalized at a later stage. It is unlikely the REDD+ mechanism will be finalized in Copenhagen, however it is crucial to sustain the REDD momentum beyond Copenhagen.

### **• Why not adopt a REDD++ mechanism?**

The REDD++ mechanism would take into account the emissions and absorption potential (called "removals") in farmed land. This extensive REDD mechanism raises a number of issues:

- There are little technologies and capacities available to effectively assess GHG emissions in forests and land. The REDD mechanism adopted will require rigorous measures to Monitor, Report and Verify (MRV) emission accountability. If the REDD++ mechanism is adopted, it will include activities relative to forests and land use changes. This entails accounting for and MRV-ing all potential carbon sinks (above and below ground biomass, deadwood, waste, organic waste in the soil).
- Transferring REDD+ incentives into the very extended REDD++ mechanism could lead to scatter the financial resources;
- Transforming and adapting the farming practices to climate changes is crucial. However, there is little consensus as yet regarding methods, actions and support required;
- There is a risk of creating a perverse incentive if countries can offset deforestation-related emissions by accounting for land removals.

The issue of farmland-related emissions is legitimate and does not only affect countries with rainforests. Reducing deforestation and developing of soil carbon storage does not mean that the farming and forest sectors should become one. Agriculture is a major concern for the African continent and interlinked with other crucial stakes (i.e. food and water supplies, desertification...). Hence, agricultural issues cannot be effectively addressed within a REDD mechanism. Soil carbon storage is a crucial issue and should be addressed by Parties using a specific mechanism.

## **7.2 – Conditions of success for the REDD+ mechanism**

Parties have reached consensus on the key components for a successful REDD+ mechanism:

- Substantial incentives for countries to accept the loss of the economic benefits of forest activities;
- Include all countries involved, in order to avoid geographical shifts in deforestation;

- Generalize programs for education and awareness-raising of the local people, with an international initiative to reduce firewood consumption in deforestation-prone zones;
- REDD is about both climate change and poverty alleviation because the use of firewood is strongly interlinked with the issue of lacking access to energy resources. REDD+ should be implemented along with programs to develop agriculture production and address food needs. The REDD policy will aim to avoid further deforestation induced by land-use changes but also ensure that local communities can still access local resources.

### **7.3- Governance for REDD+**

- ***An MRV system is crucial***

It will be necessary to assess technical, institutional and cooperative capacity-building needs and implement the mechanisms to address these needs rapidly, as well as MRV processes to monitor forest cover and carbon stocks. Technology transfers will favor access to surveillance systems. Parties agree that the REDD+ mechanism will require a strong MRV system to assess the tons of carbon avoided per acre, using satellite monitoring devices (currently used in Brazil and Guyana) for field inventories. Detailed national REDD+ strategies are crucial for countries suffering from lack of data and knowledge. These strategies will help countries identify priority issues and create a platform for stakeholders (recipients and donors) based on reciprocated trust. A strong MRV system will require training, an appropriate institutional framework, monitoring technologies and methodologies and of course, time.

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

The negotiating text insists on the importance of methodological issues, namely to measure results and verify actions. The REDD+ regime will rest on a strong interconnection between performance and financing.

Parties have submitted a number of proposals regarding institutional arrangements:

- The inclusion of REDD+ in a global financial framework, thus linking REDD to NAMAs and the fund especially established by the COP;
- The monitoring and control of surfaces deforested, reallocated or replanted, namely using the satellite watch and bushfire surveillance systems;
- A REDD MRV technical panel under the aegis of the UNFCCC;
- Annual reporting and assessment of actions in order to obtain annual payments;
- A link between the REDD+ mechanism and the international fund for climate change;
- Further development of existing initiatives (FCPF and UN-REDD) ;
- Resort to existing regional organizations (eg. COMIFAC)<sup>8</sup>;
- Establish entities to supervise REDD+ activities;
- Include REDD+ in broad strategy for sustainable forest management
- Resort to various financial means with high MRV standards;
- Establish a registry to report and monitor REDD+ actions, under the aegis of UNFCCC.

### **7.4- Implementing REDD step by step**

A REDD+ mechanism could be implemented in three phases.

- ***Phase 1: technical and institutional preparation***

Phase 1 will support the establishment of a national framework. It includes: dialogue with stakeholders, a detailed analysis of the causes of deforestation and degradation, a national REDD+ strategy, creation of protected areas, and reference and long term scenarios. Phase 1 could also launch pilot actions rapidly monitored and assessed in order to identify performance indicators. This

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<sup>8</sup> Commission for Central African Forests (Congo basin)

phase will probably last until 2015 and be funded with public money (voluntary contributions by developed countries, FCPF and 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** will implement tools for sustainable forest management (legal and regulatory tools, operational organization, reformed land titles and MRV processes). It is a decisive phase to test the first actions and performance indicators before designing new projects and collecting further funds.

**Phase 2B** is more operational. It will enable the implementation of programs of actions. Funds will be more easily obtained using result-based indicators which could quantify the tons of CO<sub>2</sub> avoided or stored in the forest.

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

This phase will start once the policy is fully implemented: actions implemented, funded based on the number of emissions reduced, integrated into the UNFCCC governance system and mechanisms. There could be complementary financial resources via market mechanisms once the rules of governance are well established. Public funds could be used to finance organizational actions and sustainable management actions. Market-based finance should focus on actions that can be directly monitored and with measurable impacts.

Resorting to a phased process will enable countries to get ready in terms of governance, capacity-building and institutions and thus, develop a more attractive, complete and efficient REDD+ system. Phase 1 (preparation) will build capacity in developing countries and enable them to attract funding and spent it more efficiently.

- ***Funding each phase***

The IWG-IFR secretariat<sup>9</sup> assessed the annual financial means needed for the REDD mechanism to function. The assessment follows three phases defined by IWG-IFR 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 €;
- 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>10</sup>.

## ● **7.5- Financing**

Public financial resources would be more appropriate in the first phase to incentivize the development of sustainable forest management strategies in developing countries. Resorting to private or mixed funding in the initial phase could backlash: countries with institutional and technological capacities would channel the funding to implement planned activities. However, annual public funding for REDD+ activities only amounts to tens of billions USD and countries will need to resort to market instruments in the next phases. Proposed sources of funding are:

- Direct support from developed countries (additional contribution to the ODA);
- A 2% of the Assigned Amount Units (AAUs) could be auctioned to generate revenues comprised between 15 and 25 billion dollars per year;
- Allocation of contributions/taxes to a UNFCCC forest fund;
- Market mechanisms (link REDD+ actions to the Kyoto flexibility mechanisms);
- Voluntary compensation by businesses, local authorities and decentralized cooperation;
- Offsetting by countries required to mitigate their emissions.

<sup>9</sup> IGW-IFR: Interim Working Group on Interim REDD Financing

<sup>10</sup> Eliash Review, IWG-IFR secretariat

The respective role of each financial resource still needs to be defined, according to the type of activity supported. A centralized registry within the UNFCCC framework could monitor the direct financial contributions by developed countries.

The issue of REDD+ financing should be addressed consistently with the mechanisms and needs of other policies that will also require funding (i.e. adaptation, technology transfers, capacity-building). Parties will need to decide whether REDD+ market-mechanisms are linked to the Kyoto mechanisms (emission permits, CDM, JI). The most consensual option so far is to establish a market mechanism for REDD+, completely separate from mechanisms in the KP (not fungible). This would entail two separate carbon markets indexed on different carbon prices.

- ***Carbon offset***

According to some countries, the REDD+ mechanism should be multifunctional and include windows for insurance, offset and risk management.

Some parties also suggested that developed countries could mitigate a share of their emissions by 2020 by funding/supporting REDD+ actions in developing countries. However, this share of REDD+ offset would be limited to ensure countries also mitigate domestically. In Copenhagen, negotiators will need to agree on the REDD+ offset threshold.

Most developed countries (New Zealand in particular) requested that emissions offset via the REDD+ mechanism be deducted from their Kyoto Protocol commitments. This position is strongly criticized by NGOs and developing countries, supported by Norway, that consider that REDD+ emission reductions should be additional to KP targets.

- ***The funding allocation formula***

A number of experts agree on the formula proposed by Professor Bernardo Strassburg. He proposed a global mechanism to eliminate the risk of emission leakage (in other words, the delocalization of deforestation activities 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 per 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 allocated based on the rate of mitigation actions by countries.

## ● **7.6- REDD+ and NAMAs**

The ties between REDD+ and NAMAs remain to be defined. The two main options are the following:

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

The interesting debate on the REDD-NAMA articulation in Bangkok lost its momentum in Barcelona. A small number countries, led by Brazil, supported a REDD mechanism integrated into a NAMA mechanism to simplify governance and negotiations. This option entails making REDD and NAMAs MRV processes, financial mechanisms and other institutional arrangements consistent with each other.

- ***Separating REDD+ and NAMAs in the early stages***

NAMAs are crucial for developing countries. However, including REDD+ in the NAMA mechanism raises two major issues:

- If REDD+ is included in the NAMA mechanism, will the REDD+ actions be funded by a specific REDD+ financial mechanism or by a REDD+ window in a global financial mechanism?

- Would REDD+ actions be framed by a REDD-specific MRV process or by the NAMA MRV system?

Discussing these issues jointly is risky because REDD+ negotiations are currently more advanced than NAMA discussions. It seems unlikely parties will reach an agreement on NAMAs at COP 15: realistically, the assembly could postpone the establishment of a NAMA mechanism to a later COP and launch an experimental NAMA phase (capacity-building, technical and methodological preparation) and. Negotiations on REDD+ will move forward in Copenhagen whereas NAMA discussions may linger on. The REDD-NAMA debate is namely a timing issue.

- A number of developing countries will not agree to NAMAs until they obtain technological and financial guarantees. It seems risky to wait for the establishment of a NAMA mechanism to launch REDD+.
- At first, a separate financial mechanism will prove easier to manage and attracts funds more efficiently than if REDD+ and NAMA actions were competing.
- The REDD+ mechanism will be more efficient if it is global. This raises a legal issue: in order to limit the risk of carbon leakage (geographical shifts in deforestation), should all countries be legally-bound to the mechanism? This seems like an unlikely option considering developing countries do not have legally-binding commitments. However, it is crucial that the REDD+ mechanism include as many relevant countries as possible, the system could fail otherwise.
- The values of carbon will vary depending on whether the REDD+ mechanism is autonomous or integrated into a NAMA system. Importing REDD+ CERs in the global carbon market could induce a drop in the value of carbon: indeed, a ton of forest carbon currently costs around 4 USD whereas the ton of carbon on the global market costs 10 USD. This imbalance would not be fair to non-forested countries.

A REDD+ mechanism will not be efficient if it does not take into account and adapt to the socioeconomic specificities of the countries involved. The mechanism should be implemented in a broader development strategy: access to energy (i.e. the firewood issue), changes in agricultural methods (less extensive cultures, no more slash-and-burn), poverty alleviation, and improved governance.

### 7.7- Party positions on a deforestation mechanism

Table 11. National positions on the REDD mechanism<sup>11</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

## 8. AGRICULTURE AND LULUCF



In Kyoto, environmental NGOs pressured negotiators to exclude agriculture-related emissions and carbon sinks from the CDM and LULUCF accounting system to avoid further manipulations in emission accounting. This was a legitimate argument at the time: the lacking data in the agricultural sector in terms of removals and emissions in the soil and the impact of farming practices could drastically increase the risk of fraud in national emission accounting and reporting.

negotiations and the decisive economic and institutional

This concern was further confirmed in Marrakech when parties attempted to increase the share of CO<sub>2</sub> removals by carbon sinks to offset their Kyoto mitigation targets. However, excluding agriculture from the LULUCF accounting system led to an unforeseen consequence: it excluded the poorest countries most reliant on agriculture from international investments for mitigation action.

The Kyoto Protocol established a « Land Use, Land Use Change and Forestry » system to account for emissions induced by deforestation in industrialized countries. The loopholes in the forest management and accounting systems mean that countries can easily “hide” emissions, particularly emissions induced by wood consumption for heating purposes. The negotiation process is attempting to review the LULUCF accounting system but countries that benefit from the current system refuse to modify it.

Most countries agree on the need to include agriculture in climate policies.

The negotiation process should focus on:

- Improving scientific data and methodologies;
  - Improving emission accountability;
  - Identifying optimal practices;
  - Tying agricultural actions to the financial mechanisms;
  - Resorting to international organizations (namely, the World Bank) to fund agricultural policies,
  - Monitoring the accounting modalities for agriculture-related emissions and removals in national inventories;
  - The possible penalties in case of obvious under or over-estimates.
- ***Relevant options on the table***
    - Develop the existing international program in favor of agricultural development in the poorest countries;
    - Create a financial mechanism specific to agricultural issues.

## 9. TECHNOLOGY TRANSFERS

Countries agree on the need to improve the deployment and diffusion of the most efficient technologies to reduce GHG emissions and adapt to unavoidable changes. Yet, the debate on technology transfers is not moving forward. The definition of “technology transfer” varies from one country to another. The point is not end up with an exhaustive list of technologies. The debate should focus on the obstacles that hinder access to and the diffusion of technologies in developing countries. The debate on technology transfers is currently focused on advanced technologies and patents. These are complex issues but are globally irrelevant on technology transfers.

### 9.1- A number of issues

Parties have identified the following needs in terms of technology transfer:

- Further academic and professional training;
- Specialized research institutes;
- Structured industrial and technical channels, particularly in terms of implementation and maintenance;
- Companies big enough to enable technological development;
- Openings to disseminate technologies;
- Contracting authorities (both public and private) able to handle the risk of first operations;
- The development and dissemination of indigenous technologies and ancestral knowledge;
- Public and private resources to fund these projects;
- Access to 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 to be addressed 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 funding 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 to assess technological needs in developing countries.

### **9.2- Discrepant demands from one country to another**

- ***Least Developed Countries***

LDCs have made the following requests:

- Excellency centers at the regional level;
- cooperation among countries with similar climate conditions (south-south cooperation);
- Focus on the local level and most vulnerable communities (education...);
- Improved collecting and analysis of climate-related and socioeconomic data, particularly at the community level;
- Review of the adaptation techniques.

- ***Emerging countries***

Emerging countries are in a different situation. A part of their population has access to high-level university education and engineering training as well as rapid access to daily technologies via the Internet. China and India do not really need direct financial support to implement technologies. On the other hand, they want access to advanced technologies. Emerging countries want to extend their industrial sector by manufacturing advanced technologies.

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? Are transfers of technology designed to massively disseminate a small number of technologies and in this case, on what ground should these technologies be selected? To be fair, should technology transfers be allocated based on the financial value of the technologies? Or on the assessed impact of the transfer? Or on the number of technologies transferred? All these questions need to be addressed in order for the debate to move forward.

### **9.3- Identifying priorities**

- ***Core issues: capacity building and training***

Capacity-building activities have so far focused (a) on training negotiators for the international negotiating process and (b) 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. Capacity-building actions could more particularly focus on small businesses.

- ***Regulating energy-efficient appliances***

The debate should also focus on future international norms regarding energy efficiency of daily consumption goods (household, lighting, heating and cooling appliances, vehicles, etc.). Best practices can contribute to reduce emissions at a very low cost. The agreement could focus on developing international programs per sector to reduce the cost of the best technologies available and target the global market.

- ***Access to patents and Intellectual Property Rights***

Access to patented technologies is a crucial stake for developing countries because R&D on clean technologies is expensive and as yet, focuses on cost-efficient technologies only. In the private sector, innovation tends to primarily address the needs of industrialized countries. Positions on the issue are stilted:

- 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.

- ***Coordinated R&D programs***

Global R&D programs would enable a more consistent and coherent approach when preparing worldwide sectoral programs. The United States now agrees with the idea of international cooperation on R&D. In 2007, the US set up a cooperative partnership with countries of the Asia Pacific Economic Cooperation (APEC), aimed at the diffusion, development and transfer of clean technologies. A number of countries are in favor of this system: namely, the US and China (at the Major Economies' Forum in May 2009). This type of cooperation could target energy efficiency, clean coal, soil carbon sequestration, renewable energy resources, energy-saving vehicles, etc. For this process to be effective, it should be international and accessible to LDCs.

Yet, proposals in the current negotiating text do not include these 3 priority issues:

Global programs could contain:

- International research programs focuses on the needs of developing countries,
- Priority activities (eg. agriculture, recycling, renewable, transport and construction),
- International action in favor of carbon sequestration to support countries with fossil fuel-dependent economies (India and China for example).

#### **9.4- Institutional proposals and options 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 mandatory 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);
- Japan submitted a Cool Earth Program: a roadmap of the 21 most innovative and promising technologies.

## **10. REDUCING EMISSIONS IN THE AIR AND SEA FRET SECTORS**

International air and sea fret-induced emissions are as yet not regulated in the existing climate treaties. There is growing consensus on the need to mitigate emissions in both of these high-emitting sectors: possibly, reduce their emissions to 2005 emission levels by 2020 and below 1990 emission levels by 2050. Parties agree on the need to negotiate these targets with the International Civil

Aviation Organization (ICAO) and with the International Maritime Organization (IMO). However, there are strong divergences on the following points:

- Should air and sea fret emissions be included in national inventories?
- Should there be mitigation targets for these economically crucial sectors? How should stakeholders and countries share responsibility?
- Should air and sea fret emissions be included in the carbon market with a cap on emissions for air and sea fret companies;
- Should there be exceptions for islands, isolated regions of the world and LDCs?
- Which international institutions can best regulate the sectors' emissions (UNFCCC or IMO/ICAO)?

The US position will be decisive for the inclusion of civil air fret. In the case of a minimal agreement, air and sea fret emissions could be –at the least- included in national inventories.

Norway proposed to include mitigation targets for air and sea emissions in the Copenhagen agreement. In the case of maritime emissions, IMO's role would be to regulate global maritime trade, coordinate agreements and implement the instruments.

The Australian proposed amendment to the Kyoto Protocol aimed to exclude air and sea fret emissions from mitigation targets by A1 countries. Australia is in favor of a separate agreement, with a sectoral mitigation target.

## 11. FINANCING

The outcome of the debate on finance will be a decisive component of the (dis)agreement. Negotiators will need to reach consensus on:

- The scale of adaptation and mitigation actions implemented in developing countries, and the level of financial transfers from industrialized to developing countries;
- Sources of funding (and articulation with Official Development Assistance);
- Governance by financial backers and recipient countries;
- The financial channels;
- The allocation and MRV mechanisms in a multilateral framework.

These questions are interconnected: a country's financial commitment is not credible if it cannot be accessed by developing countries.

### ● **11.1 – Need for funding**

#### • ***Estimated costs of adaptation and mitigation<sup>12</sup>***

Currently, financial transfers for climate change-related projects amount to 9-10 billion USD per annum (4 billion channeled through bilateral financing)<sup>13</sup>.

In a recent analysis, the UNFCCC assessed that the financial transfers needed by developing countries range from 100 to 150 billion USD per year by 2030. In the G77's assessment, financial needs in developing countries amount to 1.5% of the GDP of developed countries. NGOs are asking for a 100 billion USD transfer per year by 2020 for *adaptation only* (Oxfam proposed a progressive transfer: from 50 billion USD/year by 2020 to 100 billion USD/year by 2050).

The table below lists the financial estimates submitted by countries and negotiation groups.

<sup>12</sup> Table based on «Transfert financiers Nord/Sud : des propositions éparses », Le sommet de Copenhague tiendra t-il ses promesses ? La note de veille n°149, Centre d'Analyse Stratégique, September 2009.

<sup>13</sup> Development Perspectives for a post-Copenhagen Climate Financing Architecture, OECD, October 2009.

**Table 12. Financial estimates by countries and negotiation groups**

In billion USD	Mitigation	Adaptation	Total	Sources of funding
<b>Additional financing needs (UNFCCC)</b>	9 à 48	28 à 67		North/South transfers- deficit could amount to 245 billion USD by 2030
<b>REQUESTS</b>				
African Union G77/China (*) India	200	67	267 170 à 340 340 300	North/South transfers North/South transfers 0.5% to 1% of the GDP if industrialized countries 1% of GDP in industrialized countries Global amount/deal-breaker
UNFCCC Secretariat (*)				
<b>OFFRES</b>				
United States (**)  Mexico (Green Fund) United Kingdom France EU UNFCCC Secretariat (COP)			21,4 10 100 200 N/A 10	US financial transfers via international offsetting Amount channeled by the Fund North/South transfers North/South transfers Mitigation: annual ODA Adaptation: estimating annual needs by 2030 Global amount/deal-breaker

*Annual transfers by 2020 in billion USD: (\*) figures based on IMF scenarios by 2014 for the G7 (WEO 2009); (\*\*) figures based on IEA price/quantity projections (2009).*

These estimations will need to be further clarified. Future financial transfers are difficult to assess because they include different types of investments:

- Investments to cover global costs and extra-costs entailed by a standard project;
- Investments that will require diversified sources of funding and will take on different forms: loans, public loans, banking mechanisms, etc.

The climate negotiation should establish a large-scale financial mechanism, based on the following components:

- Mass mobilizing of public and private funding to address global issues,
- Quick and effective mobilizing of funds to reach results rapidly,
- An efficient channeling of resources by optimizing costs for the international community,
- Mobilizing financial resources in synergy with other means of funding for ODA

## ■ **11.2 – Sources of funding**

### • ***National contributions***

The debate on the scale of contributions by industrialized countries has been taking place informally, in the corridors of the negotiation meetings. However, developing countries are expecting loud-and-clear statements announcing adequate, predictable, sustainable and additional funding.

The international negotiating process has highlighted 4 categories of financing for capacity-building, adaptation, mitigation REDD+ and technology transfers:

- Voluntary contributions by industrialized countries,
- Assessed contributions based on national emission levels and per capita GDP framed by an international agreement;
- Multiple sources of funding: revenue from auctioning part of the AAUs (allocated quotas of emissions) or from a share of proceeds on flexibility mechanisms or specific sectors (air transport for example);
- Funding by market mechanisms comparable to the system established by the Kyoto Protocol.

The debate has become more complex because past experiences underline the gap between the financial promises and the actual financial contributions. The funds established by the Convention and the Protocol were never replenished as promised and are hardly operational.

The debate is focused on the possible contributions by industrialized countries that could ensure large scale and comparable financial transfers. However, public funds cannot alone address the needs of developing countries and market mechanisms- both Kyoto mechanisms and new market mechanisms- will play a crucial role.

The issue of financing will probably not be addressed until the last days of Copenhagen.

There are three main proposals on the table:

- Developing countries are asking for the creation of one or more funds in charge of implementing climate financing, under the authority of the COP. Developing countries want to fill the gaps in efficiency of the existing international financing instruments, ensure sustainable funding on the long term and a fairly regulated system.
- The EU supports the Mexican proposal for a Multilateral Climate Fund replenished by each country based on per capita GDP and emission levels. The EU would prefer a system based on existing institutions, namely the Global Environment Facility (GEF), under the guidance of the COP (support consistent with needs, support for monitoring and validating capacities, and support for projects, governance and compliance).
- In Bangkok, the US proposed an international fund under the authority of the COP. It would be replenished with « voluntary » contributions channeled by multilateral banks. The COP could embed the fund within an international financing institution: like the Climate Investment Fund in the World Bank. In the US' perspective, this fund would be one of the many mechanisms to channel climate finance. Other mechanisms and stakeholders will be involved and international bilateral funding agencies (USAID for example) in particular. A “matching entity” hosted by the International Finance Corporation (IFC), a private sector branch in the World Bank, would advise countries on their financial proposals. This proposal has become, de facto, one of the main options.

As long as the post-2012 regime is not operational, the national contribution system could be upheld to fund the transitional phase (i.e. capacity-building and pilot-programs). However, developing countries are against.

Other options on the table are:

#### ***The Mexican proposal for a multilateral Green Fund***

Mexico proposed the establishment of a global fund for climate change (Green Fund), to be replenished with contributions by all countries, except LDCs (based on per capita GDP and emission levels).

#### ***The Norwegian proposal: auctioning Assigned Amount Units (AAUs)***

In 2008, Norway proposed deducting 2% of emission permits (AAUs) to finance actions in developing countries. 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. This option entails the creation of an auctioning mechanism within the UNFCCC and operational channels to allocate the revenue to the funds on adaptation and mitigation.

#### ***The Swiss proposal: 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 circa USD 50 billion for a multilateral adaptation fund.

There have been other tax-based proposals but they could not alone levy enough funds. Some parties suggested taxing financial transactions (a sort of “Tobin Tax”) which could levy tens of billions USD but there is little consensus on this option.

Some parties also suggested placing a tax on bunker fuels or GHG emissions in the air and transport sectors. The COP could be entitled to make this decision if Parties all agreed on this option. However, this tax could not levy as much as the tax on financial transactions.

### ***Zoom: taxes are back in the game***

Although industrialized countries and stakeholders strongly advocate for voluntary contributions and market-based mechanisms, the tax is also a convincing option:

- It is a predictable source of funds, unlike shares of proceeds on unpredictable amounts of money;
- It is flexible and can be adjusted to ensure equity (exemptions, tax...), it can adapt to different sectors and timeframes;
- It is a reliable economic signal for market stakeholders as they can take it into account in profit assessments and scenarios;
- It has a low administrative cost compared to market-based mechanisms;
- It is easy to manage because it is applied at a large and well-informed scale;
- It can be rapidly operational. Also, the issue of how to allocate the tax revenue can be addressed as soon as the tax is established.

### ***Extend the share of proceed on market-based mechanisms***

As yet, the Adaptation Fund is replenished via a 2% share of proceed on Clean Development Mechanism transactions. A number of countries have made proposals to extend this share of proceed to transactions in the Joint Implementation mechanism and carbon trading systems (i.e. European and American carbon trading systems). Others envisaged increasing the share of proceed up to 8%. However, industrialized countries rejected these proposals in Poznan.

#### **• *Other possible sources of funding***

In their submissions, countries made a large number of proposals:

- Include Official Development Assistance (ODA) in the global financing scheme;
- Resort to loans and grants;
- Establish a « green air levy » on airplane tickets (Bangladesh on behalf of LDCs);
- Use the revenue from financial penalties in the case of non-compliance with commitments;
- Use the funds channeled by the UN and other international institutions (Global Environment Facility, World Bank)
- Place a carbon tax on goods and services in Annex 1 countries;
- Extend the carbon market established by the Kyoto Protocol;
- Involve the banking sector in Public Private Partnerships (PPPs);

It is likely the core financial negotiations will take place in the last days in Copenhagen. A speedy agreement could prove the unfair outcome of power struggles. A simple solution could prove more efficient: either assessed contributions based on per capita GDP and emission levels, the revenue from auctioning AAUs or a predictable share of proceeds.

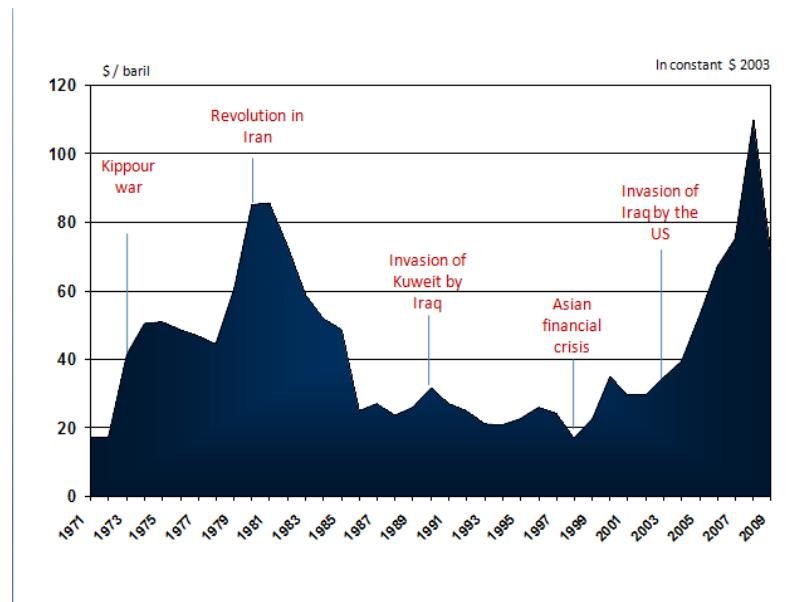
### ***11.3 – Taking into account the economic context***

#### **• *Instable trends in energy prices***

The economic incentive to invest in mitigation actions is strongly linked to the price of energy resources. In 2008 and 2009, the oil prices drastically dropped after the financial crisis, acting as a disincentive to mitigate oil-induced CO<sub>2</sub> emissions. The oil-producing countries are faced with a growing demand and declining reserves. The oil prices have tripled since 1992 (Rio) and 1997 (Kyoto) and increased by six-fold during the peak in 2008. The highly volatile prices make it difficult to forecast future trends. Although currently volatile prices do not question long-term trends of high prices of energy resources and the profit margin of long-term investments, they contribute to blur short and mid-term trends and they make it difficult for countries to assess the profitability of their long-term mitigation targets. This unstable context means financial resources are less predictable and stable and hinders the involvement of the private sector.

In fossil fuel-importing countries, actions to increase energy efficiency and develop renewable energy resources become more profitable, even in a context of volatile energy prices. Historically, high prices of energy resources and climate change made short-term profitability and long-term environmental demands compatible. However, the current negotiation process does not take into account the fact that increasing oil prices will definitely make actions more profitable in the mid-term.

**Graph 2. Trends in oil prices since 1971 in dollars/barrel**



Source: based on IEA figures

- **Gaps in the economic discussion**

The financial negotiation is also complicated by the fact that negotiators do not share a common economic background:

- Some industrialized parties consider that financial transfers are useless expenditures or act as compensation for historical GHG emissions. Negotiators from industrialized countries tend to think financial contributions cannot trigger global economic growth. Yet, “granted investments” – particularly for energy efficiency - are among the most cost-efficient,
- The economic discussion on how to optimize financing has not taken place yet. It would be useful to look for ways to use limited resources as levers to attract other large-scale funds (i.e. private sector investments),
- The private sector will get involved based on signals by the public sector: the private sector will back out if public investments decline and get more involved if the public sector creates a favorable climate for investments.
- A grant-based funding approach could prove inadequate at a large scale, particularly to fund cost-efficient climate actions (energy or urban projects for example).
- The Report by Sir Nicholas Stern clearly demonstrates that the cost of inaction will far exceed the cost of taking action. Only, these costs are not in the same timeframes and will be paid by different stakeholders. The acceptance of climate change has not led countries and economic stakeholders to anticipate future costs.

As yet, tackling climate change is perceived as an economic burden and not as a means to increase energy efficiency and consequently, productivity. It is not yet perceived as a means to anticipate future structural changes in our economies. Economic arguments should be strengthened and highlight the increased production yields, the economic growth, the job creation, the improved well-being and the development of a low-carbon society in both industrialized and developing countries.

## **11.4 – The ethical base of the financial scheme**

The scheme that will deliver funds to tackle climate change must be based on strong and common principles to build trust between industrialized countries and recipient developing countries. The optimal financial option will have the following characteristics:

- ***What financial resources***

- **Sustainable** resources to allow for early planning and well-prepared projects,
- **Public** funds to lever private investments,
- **Predictable** resources, crucial to stimulate mid-term projects,
- Linked to **insurance mechanisms** (eg. a stabilization fund),
- **Consistent** with other sources of funding (either public, private or the budget of recipient countries)
- **Innovative** mechanisms/resources: for example, mixed funds to support national, bilateral or multilateral financial stakeholders in diversifying their range of financial products and instruments that can best fund the large palette of projects and programs.

- ***The scale and adequacy of resources***

- **Adequate** resources: funds delivered consistent with needs, and progressively increased.
- **Diversified** financial instruments consistent with the nature of the actions: loans, subsidies, grants, market-based instruments

- ***Governance***

- The **responsibility** of States in defining policies to tackle climate change and development policies;
- The **strengthened** role of developing countries in managing the international financial scheme;
- **Realism** in the choice of institutions to govern the funds: resort to existing institutions to avoid further bureaucratic costs
- **Proportional** resources: LDCs should receive more financial support than others.

- ***Delivery of financial resources***

- **Fair access** by all countries- entails further capacity-building in LDCs to facilitate the financial arrangements for the projects using, for example, a mechanism to support the preparation of NAMAs;
- **Quality** of the projects should be the first criterion for financial delivery;
- **Coordination** among stakeholders (financial structure, stakeholders in the field, local and national authorities);
- **Cooperation** of financial stakeholders on one priority: strengthen financial institutions in developing countries to play a catalytic role in implementation; financial backers should only play a supporting role,
- **Democratic governance**: negotiate priorities directly with financial partners in recipient countries,
- **Economic efficiency** based on co-benefits, namely in terms of energy efficiency or adaptation.

- ***Quality management***

- **Transparent** processes when establishing rules and institutional arrangements for plans and projects;
- **Decentralized** management regarding each project and financial delivery;
- **Quick** implementation and delivery of up-front payments because developing countries cannot provide the funds.

- ***Reliable MRV processes***

- **Traceability** and monitoring of results and outcomes;

- Sharing of good practices and well-coordinated stakeholders.

### **11.5 - The respective roles of public and private resources and difficulties regarding implementation**

It is crucial to further analyze the financial scheme, to grasp the pros and cons of each financing option and the issues when delivering the funds. The debate often opposes public and private resources.

- The countries most required to financially contribute want the market to play a crucial part in climate financing;
- The technical experts do not think that actions relative to structuring, preparing and monitoring the creation of economic activities will attract private investments;
- Recipient countries demand stable and sustainable resources— in other words, public funds;
- The countries with the most urgent needs are more pragmatic: they want private resources in addition to public resources,
- The most radical countries demand that the agreement only take into account public resources because market-based resources are not predictable.

The climate negotiations are not taking place in a favorable context: countries do not trust the process and the serious economic and financial crisis is blurring the near-term future.

#### **• The roles of public and private resources**

It is crucial to differentiate the types of actions: some will be profitable, predictable and measurable; others will require institutional and technical capacity-building and some will be hedges.

Categorizing actions can simplify the debate:

- Public resources should contribute to fund actions that are crucial and that cannot translate into certified emission reductions
- Private resources should fund cost-efficient actions;
- The palette of resources in between public and private funds will be used and mixed according to the type of action.

The following points analyze the pros and cons of each financial resource.

#### **• Issues with public resources**

Developing countries tend to highlight the importance of international public resources. However, the latter often encounter issues when receiving the funds.

##### ***The difficulties in collecting the funds from donor countries***

- Very often, countries do not comply with their commitments and do not replenish the Funds. In that case, the Funds stop delivering the resources and the administrative processes become more complex.
- Few industrialized countries have increased their national ODA to 0.7% of GDP as previously pledged. This means that developing countries will not believe in future financial promises unless they are supported by convincing means of delivery.

##### ***The rules defining the allocation of financial resources***

- Rules of decision are complex and rely on technical, geographical, political and financial criteria. They tend to complicate the allocation process. Also, it takes a long time to build up and finalize each request.
- Priorities change over the years and cooperation agencies tend not to coordinate their actions. This exhausts the administrative energy and capacity of the ministries in developing countries.
- It is difficult to reach a political equilibrium between financing and recipient countries in decision-making processes. This equilibrium is improving with the emergence of collaborative processes (Forest Carbon Partnership Facility for example).

### ***Complex administrative procedures to access multilateral resources***

- The low statistic and engineering capacity in LDCs hinder the countries' ability to plan projects and programs;
- In developing countries, projects/programs need to rest on contracting authorities capable of establishing financial contracts (public companies, local authorities).

### ***The belief that global funds are the only option***

- A recent study by the OECD highlights the fact that the centralized vertical funds never reached a global scale and may not be the most effective means to finance climate change<sup>14</sup>.
- It would prove more useful to strengthen and reform existing delivery channels. Improving the ODA procedures would contribute to address one of the developing countries' main concerns.

### ***The fear that funds will be misused***

- In developing countries, procedures are often dysfunctional and tend to make the delivery of multilateral funds more complicated,
- Optimizing the use of funds entails the establishment of a large number of administrative and technical criteria. These "filters" can become insurmountable difficulties for recipient countries. This can lead to restrict the amount of funds delivered because of excessive administrative costs,
- The low capacity of monitoring and assessing processes make it difficult to improve delivery and simplification of criteria,

These difficulties contribute to fuel the mistrust towards international funds. It is crucial to improve fairness, efficiency and governance of the financing modes.

### **• *Pre-requirements to involve the private sector***

Countries agree that in a tax-unpropitious context, heavy investments cannot be funded with public resources only. Yet, calls by international organizations to attract private investors in LDCs have not been very successful.

There are a number of pre-requirements to attract private resources:

- Political stability and solid institutional and legal frameworks to optimize planning of projects and programs;
- Structured technical chains of activities (from bank loans to professional training to industrial policies and maintenance);
- The project should be cost-efficient: public funds (via subsidies or interest rebates) should be used only to attract further private investments;
- The legal and financial framework should be strong: indeed, the private sector cannot afford to invest if the contracts are not strongly legally-binding;
- A large number of stakeholders (contracting authorities, engineers, local banks, consumers...) should be effectively involved in each project.

This analysis is in contradiction with current ideological beliefs. The private sector's involvement will increase if the public sector builds a safe and favorable climate for private investors. However, public resources should be used to fund projects that the market cannot (yet) finance. In any case, it is crucial to establish predictable guidelines regarding delivery of funds (amounts, due dates, allocation, and rules of attribution). To reduce the cost of climate change action, the financial instruments must adapt to the economic profitability of investments and act as means to lever private resources.

## **11.6- The Kyoto mechanisms**

The Kyoto Protocol established the « flexibility mechanisms » (also called « flexmex ») to help Annex B countries reach their quantified emission reduction targets:

- The Clean Development Mechanism (CDM) enables industrialized countries to fund emission reduction projects in developing countries and to deduct the emissions reduced from their national target.

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<sup>14</sup> OECD, Development Perspectives for a post-Copenhagen Climate Financing Architecture, October 2009.

- The Joint Implementation Mechanism (JI) enables industrialized countries to co-finance mitigation projects in Economies In Transition (EIT), namely in ex-USSR and East-European countries. The concept is similar to the CDM.
- The emission trading system or carbon market (so far, the only existing one is the European Trading System) enables national companies to sell the emission credits (AAUS) they are not using on a national/international market, thus incentivizing them to reduce their emissions.

The flexibility mechanisms address the following concern: how can a market economy adapt to these new global limits (be it the now limited resources or the limited GHG emissions available)? Indeed, the market economy was not initially designed to adapt to long term and global constraints and in this sense, the Kyoto mechanisms are innovative mechanisms because they contribute to adapt the market-economy to the climatic paradigm. The climate agreement sets industrialized countries GHG emissions reduction targets with a due date. The regulated countries cannot achieve these emission reductions without involving the main stakeholders on their territory, namely the industrial sectors. These stakeholders are legally-bound to reduce their emissions and trade their emission permits to ensure compliance with their regulated targets. The flexibility mechanisms create a connection between a regulated public policy and the market economy.

- ***Evaluating the flexibility mechanisms***

The following conclusions can be drawn from the first four years of the Kyoto mechanisms (operational since 2005):

- Firstly, very little effective emission reductions because most of the actions implemented were stand-alone, the CDM executive board was unable to address all the demands causing a number of projects to fall through.
- The banking sector was strongly involved in the flexibility mechanisms, however, more because it was attracted by the innovative financial instruments rather than by the desire to invest. Indeed, each banking institution established its own –however small scale and punctual- climate fund.
- It is impossible to create fungible mechanisms, in other words, it impossible to develop a carbon trading system linking all the mechanisms (emission trading among countries, companies, CDM, JI, REDD+ and NAMAs). Fungibility could lead stakeholders to invest only in the projects with short term return on investment.
- The countries that needed it most (i.e. African countries) hardly benefited from the CDM for a number of reasons: low institutional capacity, complex procedures, low project-building capacity and a low number of large-scale programs.
- The transaction costs of these mechanisms are very high. The mechanisms entail high costs for the countries and for the private sector, acting as a disincentive to invest in smaller projects.

Experience shows that:

- The European Trading System, the only large carbon trading market, functions because it is framed by strong regulation (European directive with a penalty mechanism in case of non compliance by companies of countries). It includes the EU's massive industries and the large combustion plants;
- CDM-funded activities are more often cost-efficient and large-scale projects (industrial projects, household waste management projects, projects to lessen the production of fluorinated gases in industrial plants) to the detriment of energy efficiency, clean transport and renewable energy (a part from wind and hydro power) projects;
- The main CDM hosts were countries with a strong project-building capacity and legal safeguards (i.e. emerging countries);
- There are few completely additional projects;
- The CO<sub>2</sub> abatement costs strongly vary from one sector to another (eg. between the industrial sector and the agricultural sector).

- ***Use of flexibility mechanisms in industrialized countries.***

Cap-and-trade systems, similar to the European Trading System, have been flourishing since 2005, particularly in the US. The mechanisms are regulated by the legal framework specific to each cluster

of countries, country or state. Coordinating these systems will contribute to extend the global carbon market and ensure its stability.

- ***The Kyoto mechanisms are unpredictable instruments based on long-term payments***

The flexibility mechanisms are now re-analyzed in the light of the financial crisis. The flexibility mechanisms are based on long term payments and the value of carbon will not be known until the due dates set by the international negotiation process. The sub-prime mortgage crisis highlighted the dangers of auto-generating financial mechanisms, like calculating the price of a house based on its final sales value. When the housing market crashed, houses lost their value.

The Kyoto mechanisms are based on a comparable concept because the system relies on the belief that countries will feel bound by their Kyoto targets. Now that it is becoming clear that most countries will not reach their Kyoto targets by the due date, countries are feeling less pressure to comply.

The less the countries comply with their commitments, the more the carbon transactions will play a decisive role. As 2012 draws closer, carbon transactions will increase. By then, the companies will need to pay the estimated value of these carbon transactions into their accounts years in advance. There is a risk of overestimating or underestimating these transactions in the companies' balance sheets.

The volatile price of carbon blurs economic forecasts. It will prove difficult to select a price of carbon on which to index each project's financial arrangements. The uncertainty regarding long term returns tends to hinder private sector investments.

Kyoto mechanisms can only fully function within the States and within the EU because they have established effective compliance mechanisms to penalize companies and states when needed. For this reason, the US could reject the flexibility mechanisms unless the COP reforms the CDM (by restricting the list of recipient countries) and the MRV procedures.

Differentiated carbon markets could coexist: zones characterized by effective monitoring and compliance capacities and zones with low monitoring capacities and no compliance mechanism.

The Kyoto mechanisms and carbon finance should contribute to stabilize the price of carbon in time: otherwise, the system will lose momentum and remain unstable. Since 2008, the price of carbon has dropped. Indeed, the financial crisis led banks to consolidate their balance sheets and get rid of hard-to-value assets. In November 2009, the price of a ton of CO<sub>2</sub> was down to 14 USD on the EU carbon market.

- ***Evaluating the CDM***

The CDM was criticized for its insufficient results and because it did not contribute to a sustainable socio-environmental development. CDM financial transfers focused on the more cost-efficient projects with the highest mitigation potential and consequently, emission credit potential. The geographical distribution of CDM projects proved unfair because the mitigation potential was more accessible in the more advanced developing countries, China in particular. Africa was de facto excluded from the mechanism because the continent did not have any "ready-made" large scale mitigation projects with rapid return on investment. Furthermore, the serious asymmetry in terms of access to information contributed to unbalance the distribution of CDM projects.

#### ***Extending the CDM?***

So far, the negotiation process has not seriously discussed the CDM's prospects. The COP recently enlarged the scope of the CDM with the CDM Program of Actions (PoA) but it is too early to evaluate the first results. The following proposals for the post-2012 regime are on the table:

- Prior assessment of projects according to indicators of sustainable development and a "CDM gold standard" for the most sustainable projects.
- Limit the number of Certified Emission Reductions per project to ensure investments do not focus only on the most profitable; or set quotas of CDM projects per country.
- Create a sectoral CDM (with two windows: "sectoral crediting" and "sectoral trading").
- Create a Clean Transport Mechanism (CTP).

There have been proposals to simplify procedures and guidelines in Africa for example, and to address the issue of environmental additionality (CDM pre-requirement) of the project by making a list of *a priori* eligible actions and by fixing a standard GHG emission index to facilitate project arrangements and eligibility to CDM funding.

- **Market mechanisms in the Copenhagen negotiation round**

There has been little progress on market mechanisms in the KP working group so far because the US has not ratified the Protocol. The LCA working group has also made little progress on this issue. The options will depend on the Protocol's future.

**Integrating the CDM in the NAMA mechanism?**

The debate on NAMAs seems to have absorbed the CDM debate. The EU in particular suggested making the CDM one of the instruments to finance sectoral NAMA programs. The latter would be based on quantified no-lose targets with a delineated perimeter and an end date.

### **11.7- The principles framing the use of financial resources**

Developed and developing countries agree on the need for efficient projects and an efficient use of financial resources. More efficiency requires new and consolidated decision-making procedures, rules of decision and funding options, as well as a strong MRV system.

Experience shows that there are pre-requirements to allocating public resources:

- **Building an attractive demand**

Efficiently tackling climate change requires quality projects. The financing mechanisms should be able to adapt to the diversified needs and local situations. In this sense, the NAMA concept is a very innovative proposal because it aims to aggregate actions, projects and programs within a sectoral strategy, thus ensuring technical, social and economic consistency. It would be more large-scale than the CDM or the JI mechanism, adapted to stand-alone projects.

The debate should focus on the two following points:

- Ensure sufficient financing for the planning of sectoral NAMA policies and national climate policies to attract investors at an early stage
- Strongly link the financial architecture, the MRV system and the national and local climate action plans.

For the time being, the negotiation has separated discussions on the nature of the actions and the funding options. However, it is crucial that funding options be discussed in the light of the nature of the actions and the role of the state in elaborating these policies.

Of course, the country will be directly in charge of the technical preparation of each project. A national focal point will be a necessary mediator between national stakeholders involved on the project and the international framework and guidelines.

- **Building capacities**

NAMA programs will obviously be more complex to draw up and implement than CDM projects. It is crucial that LDC build capacities in their ministries, local authorities, businesses and engineering companies. Otherwise, the gap in terms of access to international financial resources will keep widening. Climate change is changing the development paradigm and all countries will be required to adapt and build national capacities accordingly. Furthermore, public financing for mitigation and adaptation actions is more efficient if stakeholders are proactive in the field, often stimulated by ODA. Climate action and development action are often clearly separated by developing country negotiators to avoid an amalgam in terms of financial resources. However, financial resources and strategies for climate and development must be intertwined to ensure an efficient use of the resources available.

- **Clearly separating functions**

Capacity-building will open the door to more collaborative ties between recipient countries and financial backers. The following functions should be clearly attributed:

- Collecting the funds from Annex 2 countries;
- Deciding on the priorities between actions and elaborating methodologies;
- Establishing guidelines on project planning and building on previous experiences;
- Channeling projects and programs towards to the appropriate entities;

- Monitoring, evaluating and improving the methods and rules.

Concentrating these functions into one entity could lead to confuse financial, technical, political and diplomatic criteria. The financial scheme would be less transparent, less efficient and possibly unfair, further jamming the negotiation process.

The climate financial scheme established by the UNFCCC should:

- Be a cooperative tool, open to a large number of financing stakeholders, and develop cooperation and partnerships;
- Remain a fiduciary fund and not become an entity comparable to a financial institution;
- Keep to a manageable scale;
- Resort to existing financial instruments in the scheme to ensure rapid implementation (otherwise, creating a new financial instrument would require 5 years).

A cooperative process would contribute to improve the technical quality of the policies, deploy sectoral strategies and optimize financial inputs.

#### • ***Creating cooperative mechanisms***

A number of functions link delivery of funds and operational actions and will be decisive components of the financial scheme's efficiency and credibility. These functions include:

- Supporting public and sectoral policies and monitoring their implementation;
- Matching: channeling of funds according to the needs;
- (Sharing) information and on the financial actions implemented;
- Innovating and building on past experiences;
- Enabling financial guidelines and financial practices to evolve, developing cooperation;
- Monitoring public policies and reporting on the actions and outcomes (international liability).

The interactions between financial delivery and implementation are fragile and could have pernicious effects, even leading to question decentralization if projects were selected based on distributive criteria only and not according to their assessed outcome.

The following principles are crucial:

- There should be a strong link in the climate negotiation between discussions on the financial scheme and discussions on how to monitor, reporting and verify the actions, policies and climate action plans. Indeed, the needs and the financing should be articulated through a matching entity. The negotiation process should take into account the feasibility of the proposals on the table.
- The negotiators should focus on soft actions (flexible coordination, shared responsibility, proactive stakeholders) to address the needs identified rather than "hard" actions that could prove insufficiently flexible.
- The negotiation process, under the aegis of the UNFCCC, should clearly define and attribute the financial functions among UN-based entities: for example, the UNDP could be in charge of reflecting on the role of information, information-sharing and coordination and mobilizing of financial stakeholders; the UNEP could be in charge of centralizing good practices and supporting sectoral policies; the UNFCCC could focus on identifying priorities and fair means to accessing the funds, based on development and climate vulnerability criteria. This is a key priority to ensure international cohesion.
- The financial scheme should ensure consistency among financial stakeholders. It should be open and offer stakeholders a number of cooperative options.

#### • ***Fixing goals, guidelines and rules of governance***

The UNFCCC should be in charge of establishing the financial scheme's framework (goals, guidelines and rules of governance) via legal COP decisions and subsidiary bodies.

The framework should contain the following elements on adaptation, mitigation, REDD+ and technology transfers:

- Guidelines on the nature of projects (eg. the scope of REDD+ or the categories of NAMAs),
- The criteria for eligibility to different financial mechanisms,
- The rules of governance integrated in the MRV system.

## **11.8- Rules for allocation of financial resources**

Rules for allocation of financial resources will need to avoid the following pitfalls:

- If international stakeholders are in charge of defining the rules of allocation, it would limit countries' involvement in their own policies and actions;
- A strong mechanism to regulate, drive and monitor policies and actions plans (external technical auditing) could be incompatible with policies and actions in developing countries;
- Creating an entity to establish norms and procedures to address the needs in developing countries and coordinate actions is unfeasible in practice and at a large scale.
- Grouping a number of functions within the same structure could generate an imbalance in power-sharing.

The rules for allocation of funds must be adequate, flexible and progressive.

Technical entities could be established for each major type of action (capacity-building, adaptation, mitigation, energy, cities, REDD+, technology transfers, etc.) to support the design and implementation of NAMAs. COP decisions by the SBSTA (Subsidiary Body for Scientific and Technological Advice) and the SBI (Subsidiary Body for Implementation) will determine the specific modalities of financial delivery and implementation: particularly, the choice of baselines, methodologies, and application of MRV procedures. These rules would be published and easily accessible by the countries and local stakeholders. The technical entities would be composed of all parties with parity of representation, would build on past experiences and good practices and regularly renegotiate the rules for allocation of funds.

### • ***Allocating the funds***

There are two steps in the allocation of financial resources:

#### ***The decision-making procedures to allocate the funds***

There are currently two procedures in use:

- The World Bank is in charge of assessing the projects and programs in the pipeline to decide the allocation of financial resources by specific funds governed mostly by financing countries. This type of procedure means that recipient countries are comparable to "clients" with little power to plead for their projects or highlight the specificities of their national policies.
- Entities to allocate the funds composed with parity of representation between financial backers and recipient countries. This procedure is more balanced but requires further discussions on the appropriate mode of governance to ensure quality procedures for allocation.

#### ***Managing the financial resources***

The second step is about managing the financial resources (i.e. management, placement, administrative payment procedures). The climate negotiation must establish a financial scheme that is free from past issues (to name a few, over centralized management, too many criteria and filters, engorged administrative processes, long delays). Concentrating the financial resources into a single financial instrument could aggravate these issues. Past experiences show that relying on a single or few powerful entities can:

- Create imbalanced relations with countries. This is one of the main issues for developing countries;
- Restrict financial and technical innovation potential. This is crucial when financing adaptation, NAMAs, REDD+ and transfer technologies;
- Lead to set aside « less accessible » or « lower priority » actions and stakeholders with potentially valuable contributions.

A unique or highly centralized financial scheme could lead to filter projects and select only the biggest, hindering access to support in LDCs

### • ***Mixing financial resources***

The financial demands are numerous and discrepant and cannot be efficiently addressed using a centralized and planned mechanism. A cooperative approach -including a large number of stakeholders and private and public financial resources- would be more appropriate considering the scale and complexity of the issue. Such an approach could effectively coordinate international, national, multilateral, bilateral, specialized and non-specialized stakeholders.

The financial scheme should effectively mix public resources and private partnerships and include a large number of resources: public resources (loans and grants), private funds, funds generated by the Kyoto mechanisms. Mixing financial resources can both increase the amounts available and efficiently channel the funds according to the needs. The public resources would cover part of the risks of private investments.

Multisource management of financial resources could lead to design innovative means to further coordinate stakeholders. The following options have been tested:

- “Pooling” of resources by financial institutions with a lever effect on the scale of funds mobilized, risk-sharing...;
- Mixed funds (similar to the European fund for infrastructure);
- Delegations composed of members from various financial executive bodies to manage resources.

### **11.9 – The financial scheme**

- ***Proposals for a financial mechanism***

There are three main options on the table:

- Mexico submitted a core proposal: a multilateral climate fund under the aegis of the UN and in charge of channeling and delivering the financial resources. The fund would be framed by institutions in the Convention and the Protocol and be replenished by assessed contributions based on per capita GDP and emission levels (all countries except LDCs). The proposal is supported by a large number of developing countries and NGOs but also very fragile: concentrating the financial power into one UN climate institution could increase the risk of jamming the negotiation process.
- The EU supports the Mexican proposal but, contrary to most developing countries, support existing institutions. Matching the needs and financial resources and the MRV mechanism will be in the care of the United Nations.
- The United States suggested the creation of an international fund under the aegis of the Convention, replenished via voluntary contributions, and channeled towards bilateral agencies and multilateral banks. The US proposed to place the fund within an existing international institution (for example, the Climate Investment Fund hosted by the World Bank). A “matching entity” would be in charge of linking needs and resources, and coordinating stakeholders. The American proposal is pragmatic in the sense that it enables the rapid creation of a climate fund without creating new financial institutions.

None of the proposals are specific in regard to governance and implementation. Parties could agree on the following bases for a financial scheme:

- Assessed national contributions, based on the Mexican proposal;
- An entity to define governance and guidelines;
- Financial delivery via decentralized procedures, using existing instruments.

In order to learn from mistakes made in past climate funding mechanisms, the following points are crucial:

- The fund should only be one of the mechanisms in the financial scheme and allow for other initiatives and options;
- The fiduciary function should be kept separate from the implementation function;
- There needs to be further debate on stakeholder coordination, MRV mechanism, and articulating of policies and action plans.

These points are consistent with the G77's demands for more transparency on financial transfers and for more parity in representation in the driver's seat. These points are also consistent with the concern of developed countries to mobilize predictable financial resources.

- ***The fund should have a fiduciary role above all***

The fund should aim to channel its resources to the financial entities in charge of implementing actions and initiatives. These operational entities would mix the fund's resources with their own financial

resources for more efficient and additional financial delivery. The financial operator would be in charge of the delivery of funds<sup>15</sup>. The multilateral fund, unlike a new financial institution, would not validate national programs and strategies<sup>16</sup>. As a decentralized and country-driven mechanism, its function would be mainly fiduciary.

The fund would channel resources to financial operators based on the additionality of the projects selected. It would require an MRV system.

- ***Well-balanced North-South governance***

There are small-scale examples of efficient and balanced systems of governance, such as the Forest Carbon Partnership Facility. The FCPF was governed by a committee of participating countries and the World Bank was only in charge of the administrative work. The more participative and cooperative the process, the more the fund will become operational and efficient. The post-2012 regime should develop international initiatives like the FCPF: North-South parity of representation, a carbon fund and a fund to prepare policies. This type of fund is designed to safeguard the credibility of national sectoral policies and give a positive signal to the carbon market and to the private sector.

Indeed, establishing efficient mechanisms to support developing countries in climate policy-making is a crucial and sensitive stake as it could affect national sovereignty. This international support must be consistent with national needs. There need to be further discussions on innovation means of support<sup>17</sup>.

- ***Delivering the funds and managing Official Development Assistance (ODA)***

ODA is traditionally delivered by development banks (World Bank, regional development banks, specialized or national agencies (AFD, GTZ, USAID, Europe Aid). It is crucial to articulate existing ODA and climate channels, at the national and international level. Furthermore, development projects will include more and more adaptation and mitigation co-benefits. Developing countries fear an amalgam between ODA and climate finance (particularly in the case of adaptation). They recently reminded industrialized countries of their commitment to channel 0.7% of GDP (currently circa 0.35%) to ODA. They also demanded separate and additional financial resources for adaptation and mitigation. A registry would ensure traceability of financial resources and keep ODA focused on development priorities.

- ***The fund should be open to all financial stakeholders and coordinate initiatives***

For more effective actions, the fund should make use of the expertise, management and implementation capacity of all international and national financial institutions. It should:

- Contribute to fund innovative coordination among stakeholders (for example, pooling of resources);
- Promote partnerships between international and national institutions to build capacities more effectively;
- Be open to new types of stakeholders (US proposal) via country-specific partnerships.

The multilateral financial scheme could be improved by:

- Coordinating multilateral and bilateral institutions with different pros;
- Including the Global Environment Facility in the financial scheme and using its experience in catalyzing financial resources and capacity-building.
- Giving developing countries further direct access to international financial resources.

- ***A fund at a manageable scale***

The fund's capacity to manage the resources and decentralize the financial powers will strongly depend on its size. A global fund with themed windows (i.e. adaptation fund, mitigation fund, etc...) could deliver financial resources more efficiently.

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15 - Unlike the climate funds in the World Bank which are responsible in case of losses on the investment operations. This makes the World Bank a major financial stakeholder and implementing entity.

16 - Unlike the Global Environmental Fund which validates national policies, based on actions.

17 - The French program specific to low-capacity African countries is a sound option.

## **11.10 – Designing an MRV system**

MRV-ing the financial scheme will prove crucial to:

- Trace the financial resources delivered to the states through different channels, using a registry;
- Assess the share of a national contribution used to tackle climate change.

There is no consensus on how to proceed: should the recipient countries implement actions and receive funding ex-post or start implementing once the financial resources have been delivered? Developing countries have requested funding ex-ante where industrialized countries want a result-based approach and payments according to the action's impact. This issue is particularly crucial for no-lose targets: it is difficult to assess the financial need without a forecast on future emission trends in the recipient country. Financial backers will never make a blindfolded commitment to finance actions in developing countries without a prior assessment of the financial amounts involved.

- ***Improving governance in NAMA and REDD+ projects***

Low carbon development strategies require financial resources to strengthen annual national inventories and national communications as well as national action plans for adaptations.

Nonetheless, LDCs object to further reporting and planning constraints because it would slow down the process (it took six years for NAPAs to become operational). However, it would be appropriate and more consistent for all developing countries to design a national climate plan, a sort of NAPA. The LDC expert group would be extended to all developing countries to avoid creating new and redundant entities. Mixed financial resources would be available, and MRV-ed. UN agencies would be more fungible to optimize actions and financial delivery.

- ***Observance mechanism and MRV approach***

The issues of observance and compliance are increasingly crucial items in the negotiation process for the following reasons:

- A number of Annex B countries are far behind their Kyoto commitments and are lobbying for weaker targets in the second commitment period instead of proposing a catch-up period. Countries are acting very lax vis-à-vis their commitments and destabilizing the Kyoto mechanisms.
- If countries do not comply with their commitments, the observance mechanism and penalties can contribute to maintain the Kyoto system's credibility.
- The Bali Action Plan mentions the need for credible control mechanisms to ensure the impact of mitigation actions and financial delivery is measurable, reportable and verifiable (MRV). Traceability is a condition to fair and comparable efforts. The financial crisis and the suspicion vis-à-vis the complex financial mechanisms highlighted the need to improve control and traceability of carbon funds.
- Observance mechanisms will be needed when implementing local and sub-national climate action plans.

- ***The inapplicability of sanctions under the Kyoto Protocol***

The Kyoto Protocol contains a penalty mechanism- an additional 30% emission reduction during the second commitment period, based on the amount of emissions that were not reduced as required. However, countries can reject the penalty or leave the KP. Recent proposals for a stronger compliance system include financial penalties for Annex 1 countries that do not comply with their financial and quantified emission reduction commitments. The penalties would replenish the Adaptation Fund.

The issue is serious: as mitigation commitments get stronger, there will be a growing discrepancy between countries complying with their commitments and those far behind. The WTO, the UN and the UNFCCC could come up with a common compliance system based on economic sanctions.

## **11.11- The difficulties of reaching consensus in Copenhagen**

The scale and allocation of financial contributions are the main risk of failure and success in the negotiation process. Clearly, until the world economy is back on track and the mid and long term impacts of the financial crisis are assessed, industrialized countries will not be in a position to make

substantial financial commitments. In any case, they will only put figures on the table in the last hours of the Copenhagen conference.

Furthermore, negotiators need to agree on fair criteria to define the amounts of financial resources required both for the transition period from 2010 to 2013 and the post-2012 regime. The financial resources could be progressively increased.

## 12. ANNEX 1 COUNTRY POSITIONS

The following chapters analyze the positions of the main negotiating groups and countries in an attempt to further enlighten the reader on the stakes and strategies underlying the negotiation process.

The European and American strategies are still very different:

- The EU is set on committing countries to absolute targets,
- Whereas the US wants mid-term targets for each sector. The emission reductions would not be legally-binding but used as indicators of progress.

### ● **12.1- United States**

With the arrival of the Obama administration, the US climate policy took a drastic u-turn. However, the American come-back in the UN negotiating process last March did not resolve the political issue and rather complicated the legal work. As expected, the US reaffirmed that it would not ratify the Kyoto Protocol. However, it also rejected any other legally-binding options.

The American position is affected by strong internal oppositions, from both industrial lobbies and political opponents. The US strategy was to launch a national debate on climate change and then have the Senate adopt a climate bill, before taking a stand at the international level. The US is back on stage but with strong demands: national sovereignty on climate policy; no legally-binding agreement at the international level on quantified commitments to reduce emissions (it should be a national commitment, voted by the Congress).

8 years "out" of the Kyoto Protocol are slowing down the US come-back in the evermore complex negotiation process. Nonetheless, little by little, the US is making its way back into the AWG-LCA negotiation process (ad-hoc working group on long-term cooperative action under the Convention), on the fringe of the KP negotiating process.

- ***Vision for the post-2012 regime***

The US envisions the post-2012 agreement as follows:

- An agreement on the shared vision recommended by the IPCC;
- National and comparable commitments to reduce emissions in developed countries (-80% by 2050);
- Contributions by developing countries (LDCs excepted) to curb their emissions from their BAU trends, using national mitigation actions;
- Inclusion of adaptation in development strategies;
- Creation of a "technology hub" to improve technology transfers, research and expertise;
- Creation of new climate funds with multiples channels for implementation;
- Multiple sources of financing, of which an extended carbon market and a strong involvement of the private sector;
- Strong MRV processes.

On the other hand, the US is unclear on the legal nature of the agreed outcome. Initially, the US defended the idea of a non legally-binding agreement. However, it seems the US may be coming to terms with the idea of a new protocol. This does not necessarily mean there would one protocol only and that it would include the Kyoto Protocol's substance and its legally-binding commitments.

From the perspective of the US delegation, key components of the agreement are:

- Proactive involvement of emerging countries, as they are soon to become big industrial powers and major GHG-emitters;
- Intellectual Property Right (IPR) protection: along with Japan and other industrialized countries, the US supports the idea that IPR protection does not hinder access to clean technologies for developing countries. On the contrary, reducing protection would generate inequalities;
- The need to increase support for the most vulnerable countries as well as review: the scale of the contributions; the list of recipient countries which includes emerging countries that no longer require financial aid for adaptation and mitigation actions.

- ***A national climate policy***

The international US position on climate change will depend on the outcome of the Senate vote on the "climate bill". The bill submitted by Senators Waxman and Markey (the American Clean Energy and Security Act - ACESA) barely made it to the Senate after it was narrowly adopted in the House of Representatives earlier this year.

#### The Waxman-Markey bill

The main goals of the bill are the following:

- National goals: emissions reduced by 17% by 2020 compared with 2005 levels (i.e. circa -3% compared with 1990 levels); by 42% by 2030 and -83% by 2050, compared with 2005 levels;
- Further development of clean coal and Carbon Capture and Sequestration technology (CCS);
- A focus on electricity distributing companies;
- A border tariff on carbon;
- Extensive use of the carbon market to reach the national target: companies could globally offset up to 2 billion tons of CO<sub>2</sub> each year (50% at the international level);
- A small percentage of the carbon market revenue would be donated to fund adaptation in other countries. By 2027, up to 4% of the carbon market revenue (an estimated USD 750 million each year) could be donated.

Senators Kerry and Boxer also submitted text for a « Clean Energy Job and American Power Act » to the Senate. It differs from the Waxman-Markey bill on the following points.

#### Kerry-Boxer bill

- A slightly stronger national mitigation target: -20% by 2020 (i.e. circa -6% compared to 1990 levels), -42% by 2030 and -83% by 2050, compared with 2005 emission levels;
- A slightly stronger national emission reduction target;
- Development of nuclear power and clean coal;
- Establishment of the Pollution Reduction and Investment mechanism (PRI), a market including the 2% of US companies responsible for ¾ of national emissions. A market stability fund to stabilize the price of carbon and compensate low and middle-income consumers. The system would be flexible and include financial incentives for the most proactive companies;
- Establishment of a Fund to support adaptation in poorer and more vulnerable countries and adaptation in the US;
- The carbon market: companies can offset up to 2 billion tons CO<sub>2</sub> per year (25% at the international level);
- Placed under the aegis of the Environmental Protection Agency.

It seems unlikely that the Senate will vote the climate Act in time for Copenhagen, a situation the US wished to avoid.

Two other aspects could influence the American position in Copenhagen:

- The fear that China, the new powerful opponent on the international scene, will avoid any commitment to curb its emissions.

- The level of financial contributions in the form of North-South transfers to support mitigation, adaptation, deforestation and technology transfer policies. The debate could also be intense regarding the means to determine developed country contributions and governance.

## **12.2- European Union**

Last December, the European Union adopted an Energy-climate plan in the aim to curb EU emissions by 20 to 30% (only in the case of an ambitious agreed outcome and including LULUCF) by 2020, compared with 1990 levels. The EU has adopted clear goals and reached consensus on a number of issues. However, some issues still need to be clarified.

- **A common position for Copenhagen**

### **Goals**

At the European Council of Environment Ministers on October 21st 2009, member states agreed on a common position for Copenhagen.

- Strong mitigation goals: -20 to -30% by 2020 and -80 to -95% by 2050,
- Sectoral targets: -20% in the sea fret sector and -10% in the air transport sector by 2020, compared with 2005 levels.

### **The legal nature of the agreed outcome: a single legal instrument**

During the conference in Bangkok, the EU opted for a single protocol instrument which would merge the Kyoto Protocol and the outcome of the current negotiation process. The EU fears that, otherwise, the post-2012 agreement could end up terminating the Kyoto Protocol and implementing a series of legally-weak decisions.

### **Adaptation**

The EU supports an agreement on adaptation and prioritizing of international funding according to the level of vulnerability. The adaptation actions should be integrated in national strategies and plans.

### **Mitigation**

The EU recently came forward with the concept of "Low Carbon Development Strategies" (LCDS) as containers for Nationally Appropriate Mitigation Actions (NAMAs). Each country would design and implement a LCDS. In the mid-term, the EU recommends LCDS based on sectoral and no-lose targets for developing countries.

The EU also agrees on the need to organize fast-start funding for 2010-2012, up to approximately 5 to 7 billion USD/year) to help developing countries prepare their LCDS, particularly in Least Developed Countries and Small Island Developing States.

### **Financing**

The European Commission assessed that developing countries would need up to 100 billion Euros per year to tackle climate change by 2020. According to the Commission:

- 20 to 40% of the funding required would be provided by the private sector and developing countries themselves,
- 40% of the needs would be covered by an international carbon market (up to 38 billion Euros per year by 2020)
- 20 à 40% would be provided by ODA (9 to 13 billion Euros per year at the start, and 22 to 50 billion Euros per year in 2020).

The EU has not yet reached consensus on how to share out the EU's financial contribution among its member states.

**Table 13. Estimating the scale of international public financing needed each year for developing countries (2010-2020)**

	<b>2010-2012 (in billion Euros per year)</b>	<b>2013 (in billion Euros per year)</b>	<b>2014-2020 (in billion Euros, per year)</b>
<b>Mitigation</b>	1	3-7	10-20
<b>Energy and industry</b>			3-6
<b>Agriculture and REDD</b>			7-14
<b>Adaptation</b>	2-3	3	10-24
<b>Capacity-building</b>	1-2	2	1-3
<b>Research, technological diffusion</b>	1	1	1-3
<b>Total</b>	5-7	9-13	22-50

The European Council highlighted the synergies needed between international ODA and financial resources for adaptation and mitigation but also recalled that financing for climate change should be additional to contributions for development aid. The EU supports a multilateral fund replenished by contributions from all countries (except LDCs) according to GDP and GHG emissions (i.e. the Mexican Fund).

- ***Internal divergences***

The EU appears bogged down in internal discussions that weaken its position in the climate negotiation process.

There is no consensus among member states on the following three issues:

- The level of emission reductions required of each member state. There are major discrepancies in efforts so far: a number of countries are far from reaching their Kyoto target, gaps in development between recent EU members and Western member states;
- Financial contributions required by developing countries and the share of financial responsibility for each member state;
- The role of LULUCF, NAMAs, CDM, REDD to offset emissions.

**Zoom: the issue of surplus emission permits**

The issue of surplus emission quotas has triggered strong feelings within the EU. Russia (8Gt) and members of Eastern Europe (3 Gt) did not use up their quotas and also did better than their assigned target. According to the Kyoto Protocol, these quotas can be transferred or cumulated into the next period. Hence, a number of countries now have major surpluses of emission permits that could strongly destabilize the carbon market, particularly if countries sold these surpluses to countries that are short. The EU is questioning the transferability of quotas because of its threatening impacts on the carbon market, and hence the risk to widen the rift between “rich” and “poor” member states.

- ***Points that need to be clarified***

- The EU has yet to define a position regarding the use of flexibility mechanisms (on what scale? For which projects?);
- How will the EU achieve the 30% emission reduction target that it is committing to in the case of an ambitious agreement in Copenhagen without major offsetting?
- The form and scale of its financial contributions.

- ***The EU's complex position***

The EU has a paradoxical position in the negotiation process:

- The EU plays a central role in the negotiation process, namely because it will be one of the only parties to achieve its Kyoto target,
- The EU announced ambitious targets earlier than other parties,
- The EU (namely France and Germany) is the main source of funding for climate issues in developing countries,
- The EU was recently bogged down in internal debates regarding financing issues,
- The EU is less proactive or convincing with other parties in the negotiation process.

### **12.3- Japan**

At the conference in Bonn in June 2009, Japan announced it would reduce national emissions by 15% compared with 2005 levels, (i.e. an -8% target based on 1990 levels). This gave rise to criticism from the NGOs. Nonetheless, the Japanese target was transparent, feasible and based on effective means of implementation.

In September, the new Prime Minister announced a stronger target for Japan: -25% (based on 2005 emission levels) by 2020. However, Japan also made it clear that it would resort to the carbon market and flexibility mechanisms and include LULUCF. Japan will commit to this strong target if other industrialized countries take on ambitious targets.

Japan made its commitment based on a democratic debate with citizens. Japan has strongly increased energy efficiency since Kyoto. Japan has one of the lowest per capita emission levels among industrialized countries. Further progress will be more difficult to achieve. Overall, Japan's emissions have increased because the country's electricity production became more carbon-intensive: longer drought periods limited the use of hydroelectric power; and nuclear plants are becoming less and less efficient. Japan had to resort to a more carbon-intensive energy production.

### **12.4- Australia**

Australia only signed the Kyoto Protocol in 2007. The country recently announced a target range from 5 to 15% (compared with 2005 levels) by 2020. The country suggested a more ambitious target (-25%) in all other countries take on strong commitments. Whether or not Australia can reach a high target strongly depends on the LULUCF rules established for the post-2012 regime. The country is also counting on the development of a national carbon market and offset mechanisms.

In September, the Opposition voted against the bill for a domestic carbon market at the National Assembly that was submitted by the labor Prime Minister Kevin Rudd. The Green Party also voted against the bill because it lacked ambition.

### **12.5- New Zealand**

New Zealand announced a 10 to 20% national emission reduction target which was tagged as little ambitious. The country intends to reach this target using three means: national mitigation action, use of flexibility mechanisms and soil carbon storage. The final target will depend on the LULUCF accounting rules that will be adopted by 2012.

### **12.6- Canada**

Canada is very far from reaching its Kyoto target. In 2006, Canadian emissions had increased by 35% (compared with 1990 levels) although the country committed to reducing its emissions by 6% by 2012. Furthermore, it is likely Canada's emissions will further increase by the due date. Emissions increased partly due to increased activities in the oil extraction sector for export purposes. Canada is tagged "dunce of the annex I countries" however increased oil export is due to decreased oil extraction in the US. Canada has announced a -20% target by 2020, based on 2006 levels meaning that it would only fill half of the current gap.

### **Countries to be included in annex B of the Kyoto Protocol**

Some emerging countries have become OECD members since Kyoto. They are now considered as developing countries and bound by mitigation commitments within the Kyoto Protocol. Three countries in particular are in this case: Mexico and South Korea. Turkey has recently made contradictory statements and is progressively aligning with emerging countries. The country could take on an 11% mitigation target, but based on a Business-As-Usual scenario.

#### **12.7- South Korea**

South Korea is the first non-Annex 1 country to set a target for emission levels by 2020. The government can choose one the following options:

- + 8% compared with 2005 levels,
- Stabilized emissions at 2005 levels,
- - 4% compared with 2005 levels.

South Korea's BAU trend suggests a 30% increase in national emissions by 2020. President Lee Myung-Bak aims to make South Korea the 7<sup>th</sup> most energy efficient country in the world by 2020.

The country made an important contribution to the negotiation process with a proposal to distinguish three categories of NAMAs based on the source of funding used: unilateral NAMAs, NAMAs funded by the carbon market, and NAMAs funded with international money.

#### **12.8 - Mexico**

Mexico is a member of the OECD, the Environmental Integrity Group as well as the Major Economies' Forum. Mexico accounts for 1.5% of world emissions (i.e. 6 tCO<sub>2</sub> per capita and 715M tCO<sub>2</sub> in 2006).

Mexico has been working on its national climate strategy since 2000 and is the only party to have published three national communications, as well as a very well-structured Special Program on Climate Change this year. The program aims to reduce national emissions by 50% in 2050 compared with 2000 levels; and reduce emissions by 51M tCO<sub>2</sub> by 2012, compared with BAU trends. Mexico's committed strategy attracted additional international funds for project implementation.

Mexico also submitted a proposal to create a multilateral climate fund that would be replenished by all countries (except Least Developed Countries).

## **13. INCREASINGLY INVOLVED EMERGING COUNTRIES**

Emerging countries face the following dilemma:

- On one hand, in order to focus on their socioeconomic development, they do not want to commit to emission reductions;
- On the other hand, they are conscious of the co-benefits of mitigating actions and the importance of energy-efficient development. They also grasp the urgency of adaptation, based on the serious impacts of climate change in their countries;
- Furthermore, these countries are facing increasing pressure from industrialized countries to implement national policies that will curb their BAU emission trends. De facto, a number of emerging economies are proactive at the national level but do not discuss it at the international level.

#### **13.1- China**

- ***A national policy to tackle climate change***

China is responsible for 1/4 of global emissions. Based on BAU trends, Chinese emissions could double by 2030. China recently announced targets to reduce the intensity carbon per GDP unit by 40% compared with 2005 levels by 2020. This is a major step forward towards a satisfying compromise with Annex 1 countries.

China is proactive at the national level. In 2007, China published its first national climate action plan and launched a national program to improve energy efficiency. The country is considering a possible cap-and-trade system. At the political level, China signed the leaders' declaration of the Major Economies' Forum on energy and climate in Aquila on July 9<sup>th</sup> 2009 that highlights the urgent need for a peak in global emissions.

### **Zoom: China's national goals for 2010**

The 11th Quinquennial Plan (2006-2010) sets China intensity targets:

- Energy intensity per GDP unit reduced by 40% compared with 2005 levels;
- 15% of the primary energy consumed will be produced with renewable energy by 2020,
- Water consumption per unit of industrial value added reduced by 30% compared with 2005 levels,
- No further increase in irrigation for agricultural purposes,
- 60% increase in terms of recycling of solid industrial waste,
- 10% reduction in emissions induced by major pollutants,
- 20% of the forest cover will be preserved and another 40Mha will be planted,
- GHG emission trends will be kept under control
- 950 Mt CO<sub>2</sub> will be avoided by 2010.

- ***China's position in the current negotiation process***

China holds the following positions:

#### ***No legally-binding commitments for developing countries***

Globally, China now emits more than the United States but its per capita emission levels are very low compared with developed countries. China refuses to see its non-Annex 1 position questioned in any way.

As an emerging economy, China sees stringent objectives as a hindrance to rapid economic growth and consequently, to social cohesion. China will object to dialogue on this issue until industrialized countries take on ambitious targets and increase technology transfers. China will not make any international commitments unless the agreement allows China to multiply its GDP by 4 by 2020 (compared with current GDP).

#### ***Legally-binding commitments for Annex 1 countries***

China and 37 other countries<sup>18</sup> requested that Annex 1 countries commit to a -40% target by 2020. China made it clear that it would not be part of an international agreement if the US does not ratify a legally-binding instrument. China and the US can influence each other's commitments.

#### ***Technology transfers and financing***

Technology transfers are a key component of the agreement from the Chinese perspective. China and the US are currently engaged in bilateral negotiations regarding the Carbon Capture and Sequestration technology (CCS). China is also requesting a more flexible IPR regime. Developing countries, on the other hand, are more concerned with financial transfers than technology.

#### ***A multilateral fund***

The G77+China submitted a proposal to establish a multilateral fund replenished by 0.5 to 1% of Annex 1 GDP. China objects to the Multilateral Climate Fund proposed by Mexico because it is based on financial contributions by nearly all countries.

#### ***The mechanisms in the new agreement***

China is the first recipient for CDM projects as well as the country to produce the most Certified Emission Reduction units (CERs). For this reason, China supports the CDM's upholding and further development. The country has not taken a clear stand on the NAMA mechanism but could accept it

<sup>18</sup> Proposal to amend the protocol in June 2009.

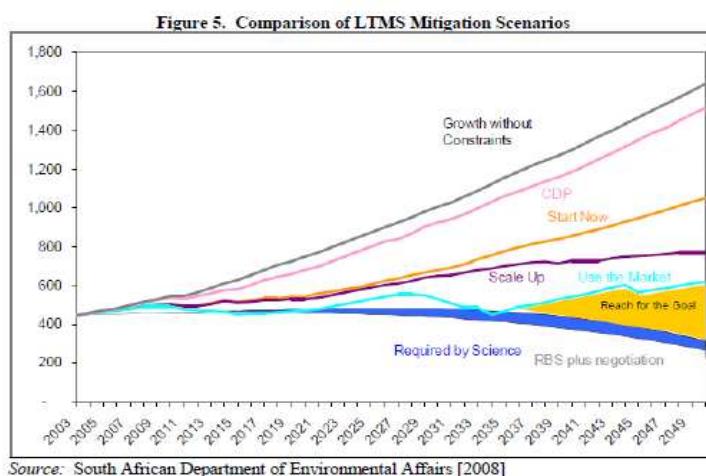
under two conditions: if developing countries are involved on a purely voluntary basis and if the mechanism guarantees substantial financial/technological transfers.

China will proactively tackle climate change at the national level if it is a key to industrial power and if it entails technology transfers. China is insistent on the need for all parties to abide by international rules.

### **● 13.2- South Africa**

South Africa is very proactive at the national level and in 2004, published a national strategy to tackle climate change. Since, the government has established constraining regulation to develop delimited protected areas and national parks, and improve air quality (the Air Quality Act restricts a number of pollutants). The government also launched a major prospective study on the impacts of low-carbon actions on socioeconomic development by 2050 and used the first results to draw up this year's National Strategy for Sustainable Development. The strategy includes a carbon tax, the development of clean coal and renewable energy resources. South Africa is also working on a White Paper for low-carbon action, to be published in 2010.

**Figure 3. 2050 scenario in South Africa**



### **● 13.3- 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 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.

Furthermore, on November 13<sup>th</sup>, the Brazilian president announced its will to voluntarily commit in Copenhagen to curb its GHG emissions by 39% compared with 2020 trends. Brazil committed to reduce 1.6 billion ton in 2020 (that is 2.1 billion ton less than 2005 and close to 1994 levels).

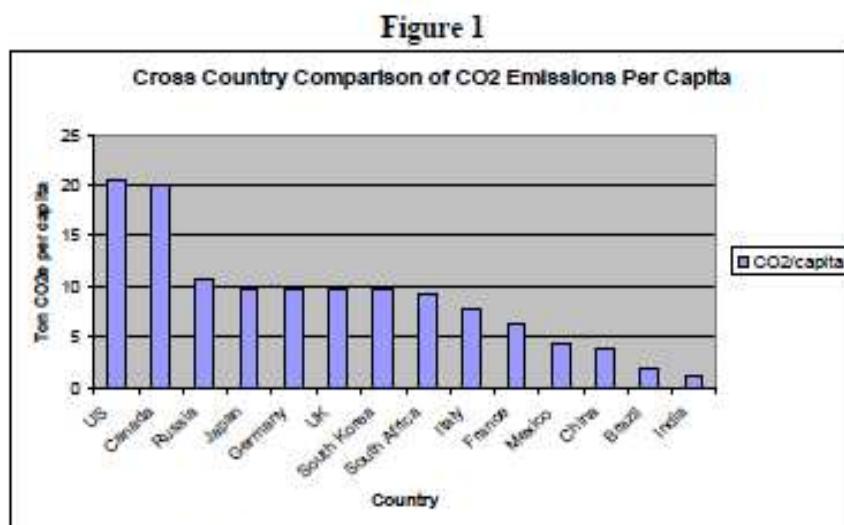
### ● 13.4 - India

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. India is however diversifying its energy production with a nuclear policy and wind power. As the world's 5<sup>th</sup> biggest wind-power producer<sup>19</sup>, India is also one of the main CDM recipients.

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.

India is one of the main speakers for developing countries at the international level, and a strong advocate of equity and development.

**Figure 4. Compared per capita CO2 emissions**



Source: World Bank and International Energy Agency, 2007

## 14. DEVELOPING COUNTRY POSITIONS

### ● 14.1- G77+China

G77+China unite 137 developing countries, including China. It coordinates member state demands and has a common position, based on the strongest claims.

G77+China support the following points for an agreed outcome in Copenhagen:

- The Kyoto Protocol and its legally-binding commitments to reduce emissions in industrialized countries,
- A status quo on the existing categories of countries and no targets assigned in developing countries based on economic criteria,
- Internationally-acknowledged national mitigation actions by developing countries,
- A -40% mitigation commitment by industrialized countries by 2020,
- Historical responsibility of developed countries to help developing countries reach their adaptation, mitigation and development goals with significant financial and technological transfers;

<sup>19</sup> -Behind the USA, Germany, Spain and China (Global Wind Report, 2008)

- By 2020, annual financial transfers comprised between 170 and 340 billion USD through a Climate Fund, partly replenished using a tax (0.5% to 1.5%)<sup>20</sup> on industrialized country GDP.

The G77+China's most stringent demand is financial.

The G77+China are demanding that industrialized countries reduce their emissions in the target range recommended by the IPCC to stabilize climate change below a 2°C temperature increase.

The group also refuses to make "low-carbon development" the post-2012 agreement's main goal as requested by developed country parties. Indeed, developing countries fear that the concept could lead to stringent mitigation commitments. The negotiations in Copenhagen could fail if countries do not find a way to integrate climate stabilization targets and development requirements.

The group's main challenge will be to maintain internal cohesion, namely between developing and emerging countries, in order to pressure industrialized countries more effectively.

## **14.2- The Africa Group**

At the African Union's 13th session in Libya (June 2009), member States established the CAHOSCC (*Conference of African Heads of State and Government on Climate Change*)<sup>21</sup> in charge of advocating for and representing Africa's political positions in Copenhagen.

- ***The African Partnership Forum and the AMCEN***

A number of official meetings were organized this year to help Africa define a common position for Copenhagen, of which the African Ministerial Conference on the Environment (AMCEN) and the African Partnership Forum (AFP).

The adopted position is firm and proactive: the continent could accept mitigation actions supported by developed countries on the continent if these actions directly contribute to Africa's low-carbon socioeconomic development. However, if the agreement is too weak, Africa threatened to boycott the UN negotiation process. The Africa Group made this threat very real in Barcelona (November) by blocking the negotiating process until industrialized countries did not announce ambitious mitigation targets. The other crucial issues for the Africa Group are adaptation and financial transfers.

Also, African delegations have objected to any proposals to replace or merge the Kyoto Protocol.

<b><u>Key messages for each pillar of the Bali Action Plan (BAP) that African negotiators are advocating for</u></b>
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***Mitigation***

- ❖ An ambitious quantified commitment by developed countries to reduce their emissions: -40% by 2020 and -80% by 2050;
- ❖ 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 production;
- ❖ Possibly, mitigation actions on a voluntary and country-driven basis in developing countries on the condition that these actions are clearly separate from developed country mitigation commitments.

***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.

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<sup>20</sup> Based on « Transfert financiers Nord/Sud : des propositions éparses », Le sommet de Copenhague tiendra t-il ses promesses ? La note de veille n°149, Centre d'analyse stratégique, septembre 2009

<sup>21</sup> The CAHOSCC is composed of Algeria, Congo, Kenya, Mauritius, Mozambique, Nigeria, Uganda, the AMCEN's president, the African Union's president, as well as the technical negotiators of each member states.

### **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;
- ❖ The IPR regime should be reformed to give Africa access to mitigation and adaptation technologies at a reasonable cost;
- ❖ 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: 1.5% of GDP in industrialized countries;
- ❖ 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.

## **14.3 - AOSIS**

AOSIS unites Small Island Developing States (SIDS), the most vulnerable on the short and long term. For this reason, the group is very active in the UN negotiation process on climate change.

The group is asking for:

- Stronger mitigation targets by industrialized countries: -45% by 2020 and -95% by 2050;
- A shared goal: stabilized GHG concentration at 350ppm under the 1.5°C threshold, to limit the rising sea level;
- An effort by all countries to reach these targets;
- A strong agreement on adaptation with significant funding; a compensation and insurance mechanism;
- More recent and more alarmist science than the 2007 IPCC conclusions.

## **14.4- 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 Gt per year (2005)<sup>22</sup>. Approximately 1 Gt can be linked to peat bogs and 0.8 Gt to deforestation. At this rate, Indonesia will be emitting 3.6 Gt of CO2 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.

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.).

<sup>22</sup> McKenzie, September 2009

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.

#### **14.5- 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 relies on a single payment system for environmental services.

#### **14.6- Mauritius Island**

Mauritius 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.

#### **14.7- 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.

### **15. CHANGING THE PARADIGM OF INTERNATIONAL RELATIONS**

**The international negotiation process on climate change is triggering one of the most important reforms of the international relations since the Westphalia treaty and the creation of the United Nations.**

This chapter aims to reflect on the technical content of the negotiation process and draw a number of legal and political conclusions on the evolutions of international relations. This negotiation round is taking place in an unprecedented context created by the vital need to stabilize climate change.

#### **15.1- The first issue to require international solidarity**

Climate change is the first political question in the world's history to require international solidarity. Clearly, there have been other issues with worldwide implications: world hunger, epidemics, terrorism... These are issues that countries attempted to resolve at the national level, without real international solidarity. Climate change is more specific: before GHG emissions started progressively accumulating in the atmosphere during the 19<sup>th</sup> century, the climate was relatively stable and regulated by natural cycles. Now that climate is affected by human activities, its evolutions do not depend on the national policies implemented (no matter how efficient they may be) but depend on the choices made and practices developed in countries around the world.

The atmosphere is a common and undivided good. This means that the issue can only be managed jointly and globally. In fact, the UN detains the climate sovereignty. Consequently, a country's policy to tackle climate change only makes sense and becomes efficient once every other country implements similar policies. This chain of solidarity also works within a country, at different levels of the territory. This process will overturn the existing paradigm on diplomacy and lead to a more collective form of

governance within the UN framework and a penalty system to guarantee a fair and proportionate distribution of efforts among countries.



Ratifying the Münster treaty (extract), Gerard ter Borch (1648)

The debate has focused on the 5 main issues that require international solidarity: the shared vision, the mid-term targets, the financing, adaptation and mitigation actions and the legal nature of the text. Overcoming the discrepant positions on these issues will require a significant change in international relations.

- ***The need to share a vision***

Climate change is becoming a common concern for all of humankind because it will seriously affect our lives. The post-2012 outcome will decide on the future of climate change during this century. The UN will vote a commitment stabilizing the world's temperature until 2100 (1.5 to 2°C maximum compared with preindustrial levels). If the world does not reach an agreement, it could lead to unpredictable evolutions in climate change. The scientific conclusions drawn by the International Panel on Climate Change (IPCC) in its 4<sup>th</sup> Assessment Report (AR4) are clear: the world needs to reduce GHG emissions within the count-down.

In Bali in 2007, the negotiation process on climate change began by discussing the shared vision but failed. Indeed, there is no shared vision on the new development paradigm. Also, the IPCC's recommendation to divide global emissions by 2 by 2050 implies that developing countries will need to contribute to the mitigation effort on the long term. This is perceived, for now, as unacceptable. To ensure their low-carbon socioeconomic development, developing countries need to be provided with technical and financial support. However, the debate on this point has only just begun.

- ***A major change in the development paradigm***

Reducing GHG emissions will prove crucial to stabilize climate change, adapt to the adverse effects and ensure a fair access to development for all human communities. Low-energy and low-carbon development is now the only path to sustainable development.

Industrialized countries will be faced with a deep transformation in their development process which until now, was based on the massive consumption of fossil fuels. This change will entail:

- A massive change in life styles: i.e. less wasting, improved individual behaviors. The change will require substantial educational and cultural progress, as well as more local democracy. Each citizen must overcome its fear of being a victim to climate change and become a proactive stakeholder in this shift of civilization.
- A deep shift in the technological systems used for production, consumption, transports, farming practices, construction, waste management...

Unfortunately, defensive objections and inertia are getting in the way of this change. For example, emission reductions are often seen as an effort and not as progress.

- ***The required north-south dialogue***

In international relations, namely regarding technology and economics, the South is very dependent on the North. However, on this issue of stabilizing climate change, the North is equally dependent on the South. Industrialized countries will not be able to stabilize climate change alone. The negotiation process is becoming the forefront of the greatest North-South dialogue since the decolonization era. The financial and technological promises made but not held by industrialized countries since Rio (1992) and Kyoto (1997) are increasing the load of past resentments.

The negotiation's main error lies in its inability to deal with the issue of equity. It has led emerging and developing countries to hold unwilling positions. This situation is further exacerbated by the fact that developed countries are far from achieving their commitments, EU excepted. France is strongly committed to supporting Small Island Developing States and African countries in accessing low-carbon development.

A number of states, regions and cities have taken unilateral and ambitious action to tackle climate change. This means a large number of people have decided to take action, understanding the local and global impact. However, these grass-root commitments will remain fragile unless they are supported by national commitments.

- ***The need to reinforce collective governance within the UN***

The urgency to tackle the climate issue has triggered one major change, relative to the power and stability of international agreements. The need to tackle climate change collectively entails the following components:

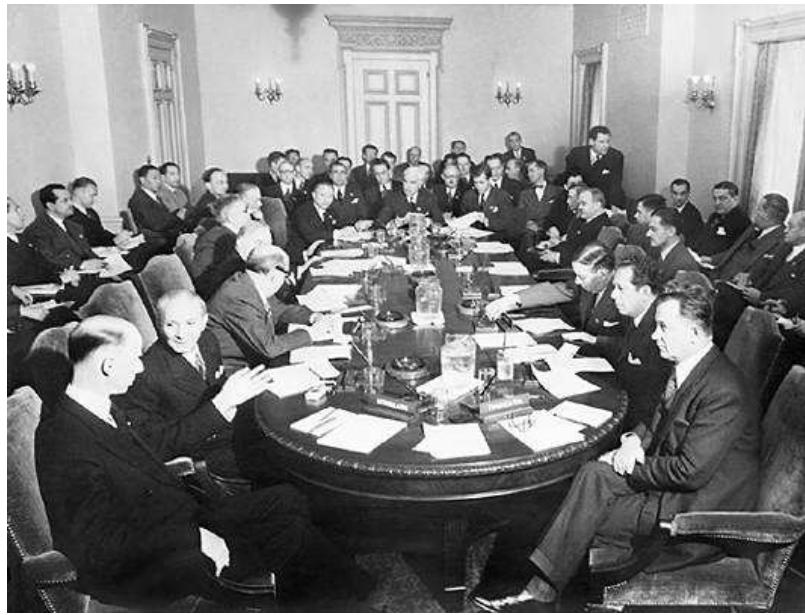
- A capacity to commit, based on the confidence that other countries will commit;
- A stable legal framework for economic stakeholders;
- Monitoring processes to build the trust.

It implies a complete change in the international relations paradigm, based on the 1648 Westphalia treaty that put an end to the 30-year war and established the concept of national sovereignty. The treaty established international laws to put an end to the never-ending bloody war sequels in Europe. It created strict boundaries between national internal policies (based on the principle of non-interference) and international relations framed by treaties.

Tackling climate change requires for countries to take on further mitigation and financial commitments based on capability and responsibility, improve energy efficiency and implement environmental policies. International laws will need to be strengthened since these are de facto national policies.

National action cannot tackle such a global issue. Shared sovereignty is the key to dealing with climate change, protection of biodiversity and management of finite resources.

Therefore, stabilizing the climate on the long term will require targets to reduce emissions within a legally-binding framework ratified by national parliaments. This is a challenge for the United Nations: indeed, a number of countries did not comply with their Kyoto commitment even though their national parliament had ratified it. This is not a weakness of the Protocol but due to the inability of international law to bind Nations to their commitments.



**The San-Francisco conference which drew up the UN charter** signed on June 26 1945.

The following paradoxical conclusions can be drawn for the UN-led negotiation process:

- Tackling climate change entails a proactive effort by all countries, including the poorest. The issue cannot be resolved by a small club of powerful countries even if it included emerging countries. A global UN-framed process is the only feasible option.
- Furthermore, the UN is the only entity entitled to create international regulation. The more climate change requires stronger mitigation action, the more an effective participation by all countries and a fair and binding framework will become crucial.
- However, the unanimity election rule predominantly used in international relations will make it more difficult to globally adopt an agreement on climate change.
- The lack of penalties in case of non-compliance by countries is also a hindrance to a serious and effective agreement.

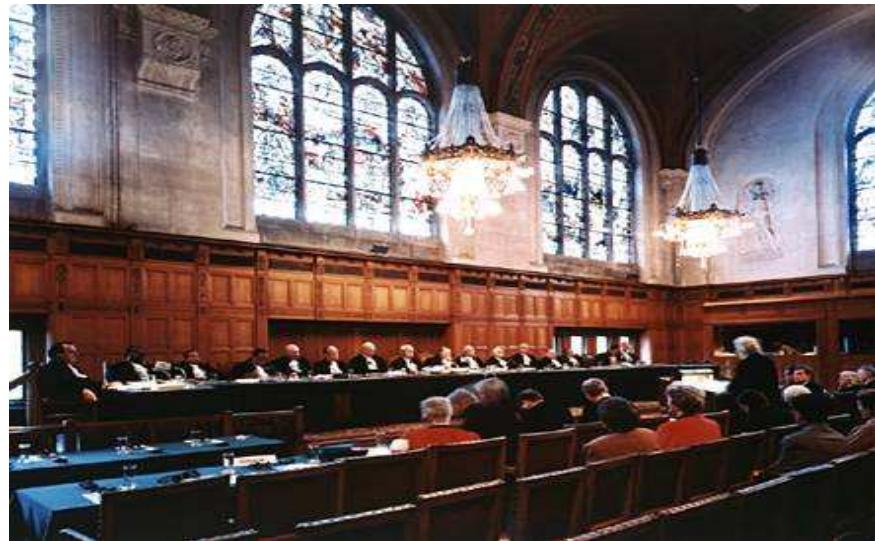
The Bali Action Plan (2007) contains drafting elements on the “MRV approach” which aims for national actions and financial support to be measurable, reportable and verifiable and consequently, for fair and comparable commitments among countries.

The MRV approach will be a step-by-step process but as for now, requires the following components:

- The most plausible option today: the preparing of a new protocol which would include elements from the Kyoto Protocol as well as new elements discussed in the negotiating text since June 2009;
- A debate among international organizations (particularly the UNFCCC and WTO) on how to establish an economic penalty mechanism;
- A debate with financial institutions on their role and options for governance (particularly the IMF, the GEF and World Bank).

The reformed UN should include a referee entity to arbitrate conflicts and penalize Parties regarding environmental and trade-related issues. In other words, the UN should be empowered to ensure compliance, using trade-related penalties for example. A world environment organization would be useless if it couldn't ensure compliance, via other international organizations such as the WTO.

Collective governance should be strengthened regarding action for adaptation to climate change. Adaptation and access to development are interwoven. It is thus crucial to interlink mechanisms and conventions regarding climate change, biodiversity, desertification and the Millennium Development Goals (MDGs).



The International Court of Justice (ICJ) in The Hague

The Conferences of Parties after Copenhagen will be in charge of:

- Identifying criteria to determine fair commitments for industrialized countries, optimal means of implementation and the provisions for support towards developing countries;
- Taking into account national specificities;
- Establishing a reliable procedure for monitoring and verification of actions (eg. a registry);
- Coordinating financial channels and resources in terms of mechanisms, institutional arrangements and efficiency of the financial transfers towards recipient countries;
- Coordinating the technological and financial means to reduce the costs and avoid distorted competition among countries;
- Extending, securing and stabilizing the carbon market and price system ;
- Establishing sanction and penalty mechanisms.

• ***National parliamentary ratification is crucial***

The legal nature of the texts (protocol or COP decisions) is not the only reason why national parliaments are requested to ratify climate negotiation decisions. **The ultimate goals of the negotiation process are to adopt a text and trigger action in all countries, in all sectors and by all stakeholders.** It is thus crucial to involve national parliaments during each step of the committing process and ensure they make proposals regarding actions and financial provisions.

The fight against climate change will be successful once all countries draw up their national climate action plan, establish the institutions and mechanisms to implement the plan both at the national and local level. To ensure local communities are effectively involved and to ensure a serious commitment, a protocol ratified by Parties is essential. COP decisions would not have the same impacts.

■ **15.2- What framework for the post-2012 regime?**

• ***The options for the legal nature of the agreement***

The Bali Action Plan uses the terms “agreed outcome” but does not define its legal nature or the content. There are a number of options on the table:

- Amendments to the Rio Convention and/or its annexes;
- Amendments to the Kyoto and/or its annexes;
- A new protocol under the Convention;
- Decisions under the Convention and/or under the Protocol (these are not ratified by national parliaments);

- A political agreement.

The UNFCCC secretariat received 10 proposals from Parties regarding the post-2012 agreement:

- Two proposals for a “Copenhagen Protocol” (Tuvalu and Costa Rica)
  - Two proposals regarding quantified targets for the second commitment period (i.e. amendments to annex B of the Kyoto Protocol by the Philippines and South Africa);
  - Five proposals to amend the Kyoto Protocol (EU, Colombia, New Zealand, Australia, 37 countries + China);
  - One proposal for a “Copenhagen agreed outcome” (US);
- A group of NGOs published a draft “Copenhagen Treaty”.

### ***Amending the Kyoto Protocol or the Rio Convention***

Amendments to the Protocol or the Convention are not limited in scope:

- An amendment to the Convention could: modify or create a new commitment, modify or specify a goal of the Convention, modify or establish institutions and mechanisms;
- An amendment to the Kyoto Protocol could establish new targets/commitments for Annex I countries, create new types of commitments, modify or establish new flexibility mechanisms, include MRV processes.

### ***Amending the Protocol or the Convention’s annexes***

To amend annexes to the Protocol or the Convention,  $\frac{3}{4}$  of Parties need to be in favor. The amendment then applies to all Parties, unless they formally object. Regarding annex B of the Protocol (i.e. the quantified targets for developed countries), any amendment requires a written approval by all Parties affected by the modification. The same procedure applies for any amendment to annexes I and II of the Convention (i.e. country classification).

At the Bali conference, countries agreed that article 9 of the Protocol (that provides for a regular review of scientific data) should not lead to further commitments by one or more countries. The scope of the amendment is in this case limited.

### ***A new Protocol***

Article 17 of the Convention provides for the adoption of a new protocol if all Parties to the Convention agree to it. The new protocol would need to be consistent with the principles, goals and provisions of the Convention. The protocol would contain the modalities of its entry into force. A question remains to be answered: would this new protocol replace or complete the Kyoto Protocol? There is no consensus on this issue as yet.

### ***A new treaty***

A new treaty seems an unlikely option at this stage. To establish a treaty as strong as the Rio Convention would require a lot more time and consensus. There would not be enough time to draw up, adopt and ratify a new treaty by end 2012.

### ***COP decisions***

Decisions adopted in plenary assemblies allow for the immediate and enhanced implementation of the Convention and Protocol. Decisions can be used to recall a country’s commitments, develop a methodology for implementation and monitoring of existing commitments. However, decisions cannot entail new legal obligations.

### ***• A likely option to consider in Copenhagen 2009: a political agreement***

Along with time, the world’s capacity to reach a legal outcome by December 2009 is running out. COP 15 could possibly not succeed in establishing the new basis for the post-2012 regime.

One of the options to consider is that of a political agreement among Heads of State and Ministers during the final segment of the Conference. National delegates can do little more to reach consensus because the political stakes are too high and the economic implications too serious. Hence, the decisive events will be taking place during the last few days of the last week of negotiations. The outcome could be a brief political declaration with choices regarding the shared vision, the legal nature of the agreement, the level of commitment by industrialized countries, the mechanisms for actions

(plans for adaptation, mitigation action, mechanism to tackle deforestation, technology transfer programs), the types of financial contributions (tax, voluntary contribution, market mechanisms, share of proceed), and the level of financing.

This political declaration could be supported by a number of COP decisions, adopted during the final plenary session. One of these COP decisions could establish provisions for a pilot-phase to test new mechanisms, and prepare countries for mitigation plans and actions in developing countries (NAMAs and REDD+ projects).

#### ***Transcribing the political agreement in 2010***

Negotiators would be given a mandate to give the political agreement a legal form, based on the choice made by Parties (either in Copenhagen or Mexico in 2010, or during a mid-year SBSTA meeting).

### **15.3- The 4 major changes in international relations to be decided in Copenhagen**

Based on the previous analysis, a political agreement in Copenhagen could contain the following components.

#### **• A strong legal framework**

In the light of recent science, climate change is accelerating and the impacts aggravating. Therefore, the new agreement should be as or more legally-binding as the Kyoto Protocol.

First, the negotiation process will need to convince the US to ratify a protocol within the Rio Convention with a broader scope than the current Kyoto Protocol and that includes recent proposals regarding adaptation, mitigation actions (NAMAs), forests (REDD+), technology transfers.

The new US administration officially refused to ratify the Kyoto Protocol in Bonn in March 2009 without explicitly stating why, consequently leading to misinterpretation. The Bush administration had rejected the Kyoto Protocol because of the -7% emission reduction target it had to commit to. The Obama administration rejected the Protocol for other reasons: mainly, the lacking support to the climate bill in the Senate and the country's hostility to a multilateral legally-binding framework. It is not an attempt to elude climate change.

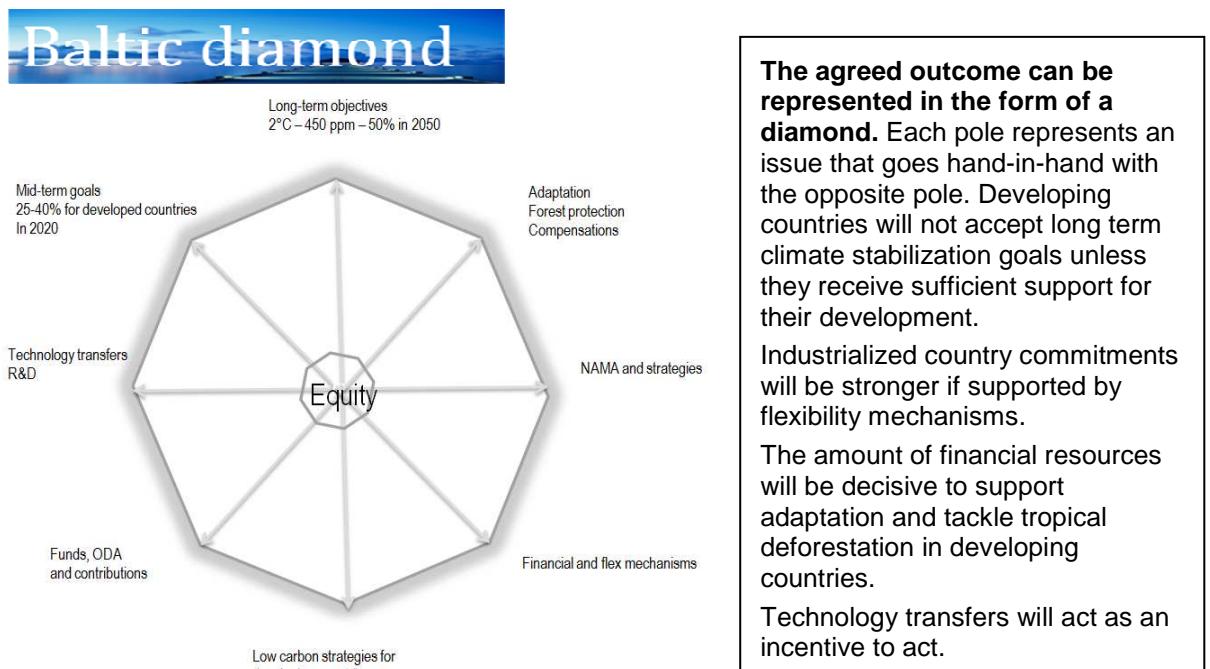
Is it a temporary position in an attempt to obtain significant amendments or a definite strategy? What does the US want? There are three possible options:

- An agreement on the need for a new protocol that would partially or completely include the Kyoto Protocol, as well as additional provisions;
- COP decisions within the Convention;
- The Kyoto Protocol without the US, and COP decisions to indirectly include the US.

A successful conference in Copenhagen will require an early decision on the legal form of the outcome. This way, negotiators could start working on legal text during the two weeks.

### **Agreement enforced at a later stage**

The Kyoto Protocol, adopted in 1997, was only ratified after the Marrakech accords in 2001. Indeed, drawing up the modalities for implementation, collecting the financial contributions, defining the allocation rules takes time. It is likely that refining the agreement and making it operational will take one or two years. It would be ready for effective implementation in January 2013, after ratification by national parliaments.



### **• 2012-2030 commitments for industrialized countries**

The negotiation round will need to make a decision on emission reduction targets, based on two principles:

- Equity and comparability of targets among countries,
- Feasibility of the targets.

One of the main issues today is the gap between the 2012 targets and current emission trends. None of the pre-COP meetings this year reached consensus on the targets to set for the second commitment period, although some countries announced high targets. Recent declarations by the EU, Japan, Norway and Switzerland to set targets in a 25-30% range are a major step forward. For some countries (i.e. Russia, Kazakhstan, Belarus), reducing national emissions within that range should not prove too difficult. However, other countries are no way near their Kyoto targets and could not take on such strong commitments by 2020 (namely, USA, Canada, and Australia).

#### **The « late » countries**

To make up for the lost time accumulated by some countries, there could be two commitment periods (until 2030) with regular reviews and penalties in the case of non-compliance. The point of extending the time period is not to add further delays in mitigation but to give countries the time to make the necessary structural changes in their economies, industries and societies. Extending the commitment period to 2030 could allow “late” countries to catch up and thus, build credibility and trust.

Furthermore, a number of policies require from ten to 25 years to be effectively and broadly implemented. Setting targets for 2030 today will give countries technical and financial perspective and provide enough time for structural policy-making.

Getting industrialized countries to accept a 2030 commitment will require debate on the issue of consumerism and wasteful life styles. Indeed, energy efficiency and improved consumer behavior will be necessary to achieve high emission reduction targets.

### **Fair commitments and contributions**

A satisfying agreed outcome should include incentives for emerging and developing countries to act in accordance with their capacities and national circumstances. The mitigation effort could be distributed as follows:

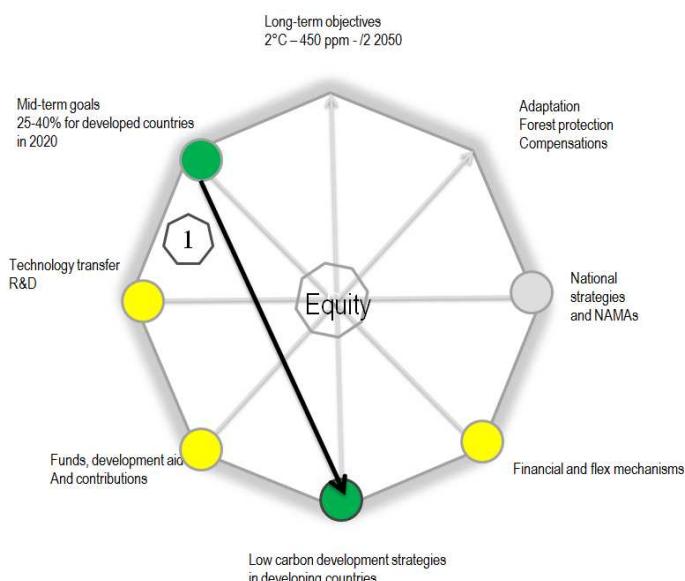
- Legally-binding commitments for industrialized countries,
- A less carbon-intensive GDP in economically advanced developing countries,
- Financial incentives to mitigate in developing countries.

### **Support for adaptation in developing countries by industrialized countries**

Adaptation requires collective action. The post-2012 regime will need to strengthen the adaptation fund to rapidly address the needs of the most vulnerable countries: low-coast countries threatened by the rising sea level, countries affected by desertification and droughts, and those affected by extreme climate events (floods, cyclones...).

During the meeting in Barcelona (November), the Africa Group boycotted the negotiations to force industrialized countries to set mitigation targets before Copenhagen. This shows the need to find an agreement on one of the main points in the negotiations at the start of COP 15 and build the trust required to reach a global agreement by the end of the conference.

### **Towards a successful agreed outcome, step 1...**



1. Industrialized countries commit to mid-term targets within the range recommended by recent science to stabilize temperatures. This step forward is necessary to negotiate low carbon development strategies in industrialized countries, emerging countries and then developing countries.

### **15.4- Financing**

The debate on financing has made little progress since the beginning of the year because industrialized countries feared it could get out of control. Also, there cannot be an agreement on financing before an agreement is reached regarding the legal form of the outcome and the commitments by industrialized countries. The issue of finance will hopefully be seriously discussed and resolved during the ministerial segment, at the end of the second week in Copenhagen.

The three key points of the finance debate are:

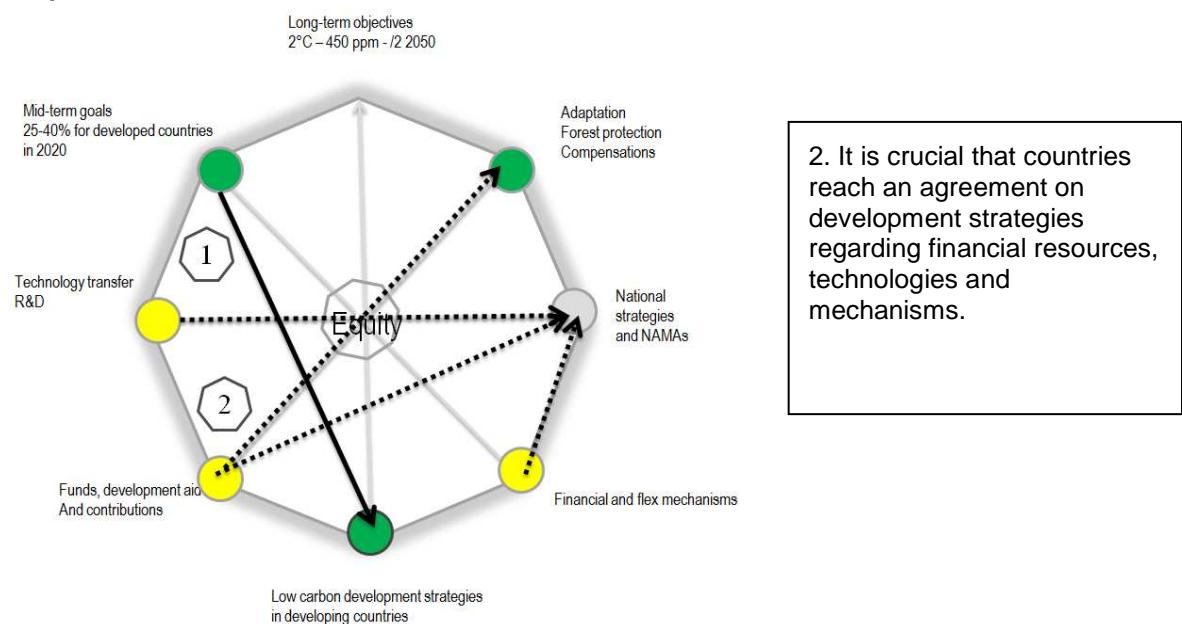
- The scale and nature of the financial resources,
- Governance and management,
- The financial transfers towards developing countries.

- Shifting to a new economic paradigm based on an efficient use of resources**

Unfortunately, the negotiation process on climate change has not yet digested the fact that on the long term, energy prices will increase. A number of projects to reduce emissions are already cost-effective. Public funding should be used to create enabling environments in developing countries that will attract private investments and carbon finance.

The funding attributed to developing countries will indirectly contribute to stimulate the global economic activity. Reducing GHG emissions will spare consumers energy expenditures and will improve their level of comfort; adapting to climate change will avoid threatening damage to ecosystems and communities. Climate policies in developing countries will contribute to stimulate global economic growth, including in donor countries that will export know-how and technology. Climate globalization is interlinked with economic globalization. This phase of the negotiation process will depend on whether or not the high segment supports a positive vision of financial transfers.

### Step 2...



- The amount of financial resources available**

#### **The main source of funding should be adequate, predictable and sustainable**

To ensure fairness and transparency, the resources should be sustainable and predictable. National contributions, assessed using the same rules, would be an efficient option. The fairest and most transparent proposal on the table is that of the Mexican Multilateral Fund as it takes into account national emissions and per capita GDP. Consensus will prove difficult to reach on the choice of the mechanism and on the technical details.

#### **A mix of financial resources**

Climate finance will need to articulate this main source of funding with a number of other financial resources:

- Reinforced and coordinated public development aid;
- Stabilized carbon finance (using the following mechanisms: emission trading market, Clean Development Mechanism, Joint Implementation, NAMAs, and REDD+);
- “Fast-start” funding using contributions by industrialized countries to launch a pilot phase (2010-2013) of mitigation and adaptation policies in developing countries. This phase would create enabling environments in Least Developed Countries.

A number of studies assess the global financial bill to tackle climate change up to 150 billion USD per year in 2030. The Copenhagen agreement could include a step-by-step financing approach, starting

with a 2010-2013 prepping phase (building legal and institutional capacity, implementing projects and investment programs).

### ***The scale of financing***

This issue is difficult to solve. Indeed, very different types of actions require funding:

- Actions for adaptation with no short term return on investment;
- Actions for capacity-building that are crucial and should be funded with public money;
- Actions to reduce emissions that are potentially profitable but that depend on the future energy prices.

Depending on the level and stability of public funds, private funds will be more or less attracted.

### ***Governance regarding allocation of funding***

There are three positions on this issue:

- Developing countries (supported by NGOs) demand an allocation system with parity of representation, framed by the UNFCCC.
- Some countries (namely, the US) want the contributors to play a predominant role in the allocation system, using entities such as the World Bank or the International Monetary Fund, and highlight the importance of monitoring the use of the funds.
- Other countries find the centralized processes implemented so far by the UNFCCC are slow and stilted (namely, the adaptation fund). The EU is in favor of a system based on existing entities and channels.

The funds should be attributed in a UNFCCC-framed co-decisional process (both contributors and recipients). The selected system should decentralize funding channels to ensure quick and efficient access to resources by the recipient countries.

The ministerial segment at the end of the Copenhagen conference will arbitrate on these key issues. According to the scenario developed in this analysis, the modalities for implementation will be defined in 2010 and beyond. **If the crucial issue of financing reaches consensus in Copenhagen, it could contribute to resolve other key issues and lead to an ambitious global agreement.**

- ***Launching a global initiative in favor of education, technology transfers and research***

This global initiative could support capacity-building in different countries, develop skills and know-how, and coordinate R&D. Yet, these narrowly interlinked actions have not been properly discussed in the negotiation sessions.

The initiative could implement programs along the lines of the following:

- A program to build capacity and support professional training in Least Developed Countries;
- A program to disseminate existing and efficient technologies to reduce emissions, namely in the fields of electricity production, energy efficiency, agriculture, quality construction, development of renewable energy resources, water and waste management;
- Global coordination of research efforts regarding major stakes: transportation, renewable energy resources, electricity production, carbon sequestration, agriculture...

## ***15.5- Incentivizing action in developing countries***

An agreement on the financial issues could lead to an agreement on legal text regarding mechanisms for action: adaptation, mitigation and REDD +.

### ***Making all countries proactive***

The core solution to climate change lies in the capacity of all stakeholders and countries to take action. The negotiation process so far has proved that access to funding will depend on the capacity to draw up actions, sectoral programs and national plans. Developing countries are negotiating actions in exchange for money. Of course, all countries should take actions according to their capacity and national circumstances.

### **Bottom-up action plans and top-down coordination**

There appears to be consensus on the fact that Nationally Appropriate Mitigation Actions (NAMAs) could be adequate tools to curb emission trends in emerging and developing countries and ensure all countries take action. In Copenhagen, negotiators will need to adopt the concept, and define the modalities (i.e. registry, matching entity...), the financial provisions and mechanism, and the MRV processes.

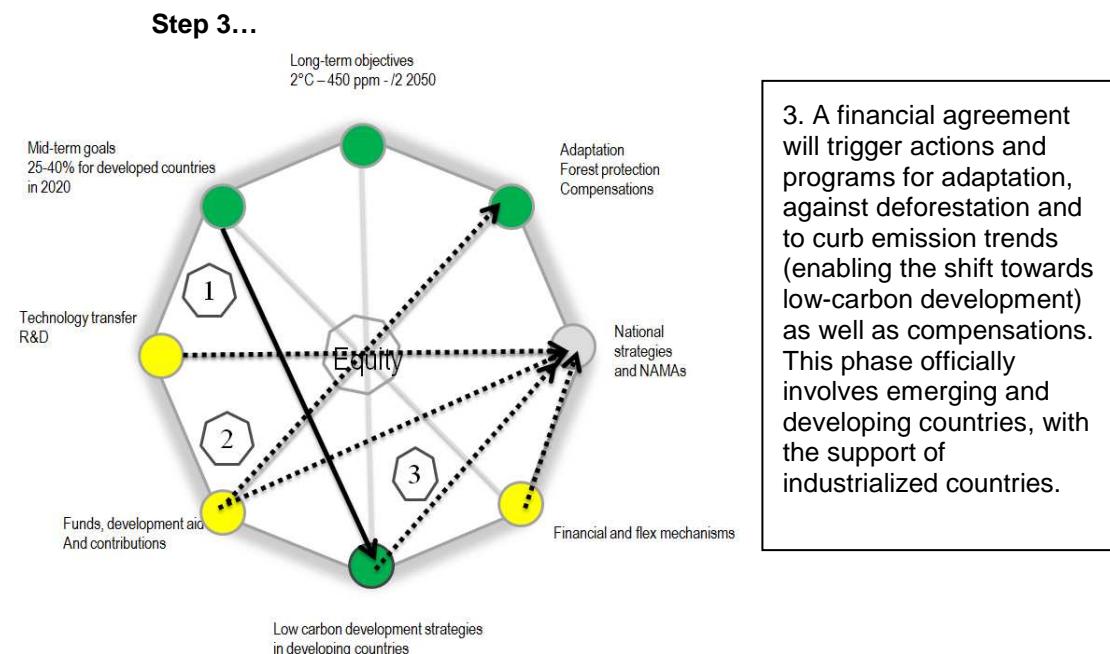
To ensure global action, the Copenhagen agreed outcome should incentivize the worldwide implementation of local and sub-national Climate Action Plans, as well as citizen involvement in the process of drawing up actions and programs.

### **Vectors for global economic growth**

National programs could build up to become a global plan to stimulate low-carbon economic growth. Energy prices have increased threefold since Rio and Kyoto making mitigation actions a lot more cost-efficient. By improving energy efficiency and globally developing NAMAs, global productivity could significantly increase.

The programs needed most are:

- Higher quality construction and eco-friendly architecture to reduce emissions induced by energy-consuming heating and cooling;
- High yield farming with good nitrogen and carbon-storage capacity;
- Climate-resilient water management,
- Development of renewable energy resources to reduce the use of fossil fuels;
- Development of public transport systems and diffusion of energy-saving or low CO<sub>2</sub>-emitting vehicles.
- Environmentally-friendly waste management, recycling and reduced methane emissions.
- Reduced deforestation and land degradation, and sustainable forest management.



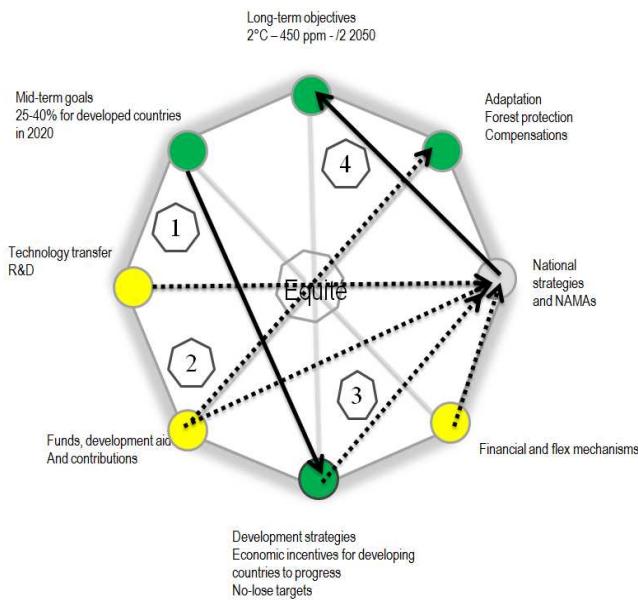
### **15.6- Sharing a vision**

Consensus on long-term climate goals will most likely be the last component to seal the deal in Copenhagen. The shared vision should ensure the stabilization of climate change at a level that does not threaten the survival of ecosystems or threaten access to sustainable socioeconomic development for all.



**The Celebration of the peace of Münster** by Bartholomeus van der Helst

#### Step 4...



4. The agreements in 1, 2 and 3 enable countries to adopt a shared vision, with long term climate goals. Countries ratify a global agreement that will stabilize the temperature increase below 2°C, and support developing countries to achieve a low-carbon development.

On the eve of the Copenhagen conference, one must keep in mind that the negotiators have not yet put all their cards on the table and have not all expressed their final intents. This analysis is therefore to handle with care as positions could completely change in the final days of COP 15. It also means that none of the positions analyzed in this paper are completely set in stone.

This wariness applies to the following positions in particular:

- The current objection by the US to ratify a protocol with legally-binding commitments (partially linked to the postponed adoption by the Senate of the "climate bill"). The position could change considering that it is a deal-breaker for most of the developing world.
- The emission reduction targets for industrialized countries. The commitments could become comparable if the period was extended to 2030;
- The financial issues and the means of actions (capacity-building, adaptation, mitigation, REDD+, NAMAs and technology transfers).

## Annexe 1. NGO proposal for a Copenhagen climate treaty

**Indy Act, David Suzuki, GermanWatch, WWF and 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. It however eludes two main issues: sources of financing and the reform of international institutions.

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.



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