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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

**AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION  
UNDER THE CONVENTION**

**Fifth session**

**Bonn, 29 March to 8 April 2009**

**Item 3 (a–e) of the provisional agenda**

**Enabling the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, by addressing, inter alia:**

**A shared vision for long-term cooperative action**

**Enhanced national/international action on mitigation of climate change**

**Enhanced action on adaptation**

**Enhanced action on technology development and transfer to support action on mitigation and adaptation**

**Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation**

**Ideas and proposals on the elements contained in paragraph 1  
of the Bali Action Plan**

**Submissions from Parties**

1. The Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), at its second session, invited Parties to submit to the secretariat ideas and proposals on the elements contained in paragraph 1 of the Bali Action Plan (decision 1/CP.13), in order to focus the consideration of all the five elements by the AWG-LCA.<sup>1</sup> All submissions received prior to 6 December 2008 were compiled in the documents FCCC/AWGLCA/2008/MISC.1, FCCC/AWGLCA/2008/MISC.2, FCCC/AWGLCA/2008/MISC.4 and FCCC/AWGLCA/2008/MISC.5. Ideas and proposals submitted by Parties were assembled by the Chair of the AWG-LCA in the document FCCC/AWGLCA/2008/16/Rev.1 in response to the invitation made at the third session of the AWG-LCA.<sup>2</sup>

2. At its fourth session, the AWG-LCA invited its Chair to prepare, under his own responsibility, a document for consideration at its fifth session that would further focus the negotiating process on the fulfilment of the Bali Action Plan and on the components of the agreed outcome to be adopted by the Conference of the Parties at its fifteenth session.<sup>3</sup> This document would build upon the ideas and proposals of Parties and document FCCC/AWGLCA/2008/16/Rev.1 and take account of further submissions received from Parties by 6 February 2009.<sup>4</sup>

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<sup>1</sup> FCCC/AWGLCA/2008/8, paragraph 25.

<sup>2</sup> FCCC/AWGLCA/2008/12, paragraph 27.

<sup>3</sup> FCCC/AWGLCA/2008/17, paragraph 26.

<sup>4</sup> This document includes submissions received up to 27 February 2009.

**FCCC/AWGLCA/2009/MISC.1**

GE.09-60425

3. The secretariat has received 25 such submissions from 22 Parties. As requested by the AWG-LCA, they have been posted on the UNFCCC website.<sup>5</sup> In accordance with the procedure for miscellaneous documents, these submissions are attached and reproduced\* in the language in which they were received and without formal editing. The secretariat will continue to post on the UNFCCC website any submissions received after the issuance of the present document. The secretariat will also issue an addendum to this document prior to the fifth session of the AWG-LCA to include submissions that are received after 27 February.

4. Submissions received from accredited intergovernmental organizations have been posted on the UNFCCC website<sup>6</sup> and will be compiled in document FCCC/AWGLCA/2009/MISC.2. Submissions received from non-governmental organizations will, in line with established practice, be posted on the UNFCCC website.<sup>7</sup>

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<sup>5</sup> <[http://unfccc.int/meetings/ad\\_hoc\\_working\\_groups/lca/items/4578.php](http://unfccc.int/meetings/ad_hoc_working_groups/lca/items/4578.php)>.

<sup>6</sup> <[http://unfccc.int/parties\\_observers/igo/submissions/items/3714.php](http://unfccc.int/parties_observers/igo/submissions/items/3714.php)>.

<sup>7</sup> <[http://unfccc.int/parties\\_and\\_observers/ngo/items/3689.php](http://unfccc.int/parties_and_observers/ngo/items/3689.php)>.

\* These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

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PAPER NO. 1: ARGENTINA

**Submission for the AWG-LCA  
February 2009**

As part of the AWG-LCA's Work Programme for 2009 (FCCC/AWGLCA/2008/L.10), the AWG-LCA invited its Chair to elaborate a document for consideration at its fifth session to "focus the negotiating process on the fulfilment of the Bali Action Plan and on the components of the agreed outcome to be adopted by the Conference of the Parties at its fifteenth session", taking into account new submissions from Parties by February 6.

On this regard, the Government of Argentina would like to submit its views and suggestions to this negotiating process. Despite that our comments are organized according to the current division established within the AWG-LCA, we would like to emphasize that all the elements of the Bali Action Plan (i.e. paragraph 1 of Decision 1/CP.13) should be discussed, negotiated and agreed upon in an integrated fashion.

***a) On a shared vision for long-term cooperative action***

The Government of Argentina considers, in the first place, that a shared vision among Parties should focus in defining the long-term goals that are necessary to fully implement the Convention and achieve its ultimate objective.

The shared vision should be, in the first place, about what is necessary in terms of mitigation and adaptation actions to reach the ultimate objective of the Convention.

We strongly believe that the early establishing of long-term goals will facilitate the discussion on "how" to get there by defining not only the level of GHG emission reductions in developed countries in the coming years and decades, but also the level of support in terms of technology transfer and development and the associated financial flows for developing countries to take the necessary national appropriate mitigation and adaptation actions.

Establishing a global emission pathway, including mid-term targets for developed countries, and stringent monitoring schemes is also crucial and will allow for guiding the process towards the long-term goals as well as updating and adapting the objectives on the basis of new scientific evidence.

We believe that the long-term goals should be based on the scientific information gathered and processed by the IPCC and that those goals should reduce below 50 % the probability of exceeding the 2 degrees C temperature increase with respect to pre-industrial levels. The reasons for keeping the temperature increase below 2 degrees C with a probability higher than 50 % are clearly and abundantly explained in the literature, including the IPCC Fourth Assessment Report, and are mainly related to the increasing risk of triggering non-return changes in the climate and ecosystems around the globe.

The establishing of such a long-term goal will prompt concrete discussions, and eventually negotiations, on the level of efforts required by all Parties according to the principle of common but differentiated responsibilities and respective capabilities, taking into account historical responsibilities, current social and economic conditions and other national circumstances, and considering that economic and social development, poverty eradication and adaptation to climate change are the top priorities for developing countries as recognized by the Bali Action Plan.. Once agreed on the long-term goal, the AWG-LCA may start working on converting this temperature increase limitation into a set of indicators more useful for the negotiations ahead.

This goal will also facilitate discussions on the governance structure and mechanisms necessary to transfer, on time, mitigation and adaptation technologies in order to achieve the goal, as well as on mechanisms to monitor the process and enforce the commitments assumed by Parties.

Finally, and related to "how" to reach the mid- and long-term goals, Argentina emphasizes that the choice of policy instruments, tools, measures and methodologies available to Annex I

Parties, must take into account their contribution to the sustainable development for all Parties. The potential environmental, economic, and social consequences, including spillover effects of these choices should be properly addressed in the context of a shared vision. A shared vision should look thoroughly to the economic and social consequences of response measures, as called by the Bali Action Plan. These definitions will allow for more specific discussions within the AWG-LCA on the technologies we need to focus on in the coming years for both mitigation and adaptation activities.

***b) On enhanced national/international action on mitigation***

As mentioned previously, the establishing of mid- and long-term goals will allow determining the level of the mitigation commitments required from developed countries as well as the level of technology development and transfer and financial support required by developing countries to carry out the national appropriate mitigation actions necessary to achieve the goal for 2050 proposed above.

Comparability of efforts among developed countries should be based on undisputed scientific evidence regarding historically contribution to climate change, mitigation potential and respective capabilities to address the task. The AWG-LCA needs to start working on the indicators and formulae that can take all these aspects on board allowing reaching the goals in a fair fashion.

Developing countries, in turn, should start discussing the level and type of mitigation actions required to achieve the proposed mid- and long term goals and how these actions are going to be integrated to national development plans. We believe that the elaboration of Nationally Appropriate Mitigation Actions (NAMAs) that include descriptions of national circumstances and the needs for building capacity and mitigation technologies will be extremely helpful to define the level of financial support required. AWG-LCA should start working, based on NAMAs and scientific information, on determining sustainable development indicators to establish priorities for technological and financial support for mitigation actions among developing countries.

Regarding the mechanisms to be developed to achieve the proposed mitigation goals, Argentina believes there is a need to further consider the main elements contained in the G-77 and China Proposal for the Development of a Financial Mechanism for Meeting Financial Commitments under the Convention, that states that the major source of funds would be the public sector. Market-based mechanisms should also have an important role to play, in order to mobilize the capital and technology at the level needed to support GHG mitigation activities, in particular to enhance mitigation actions in developing countries.

Current carbon market mechanisms need to be scaled up to deliver the amount of financial flows required to accomplish the task ahead by including multi-project schemes or even projects involving entire economic sectors or sub-sectors; although at this point we want to be clear that if the proposed long-term goal is to be accomplished, any GHG emissions offsetting mechanism to be established has to be on top of the mitigation actions taken by developing countries with the support of non-market driven financial flows from developed countries.

Market mechanisms should be oriented by governments under the UNFCCC and in coordination with other international organisms and forums where governments are represented, since we strongly believe that market alone cannot deliver the expected outcomes soon enough to avoid irreversible climate change.

In this sense, a new approach for carbon market mechanisms should introduce a number of conditions, criteria and factors to allow for a better regional distribution of the mitigation actions and a better distribution among mitigation technologies in order to avoid biases such as those that have arisen in the current CDM in relation to activities that mitigate GHG different from carbon dioxide. In addition, conditions should be established to drive developed countries to finance the full incremental costs of technology deployment necessary for the implementation of GHG mitigation activities in developing countries, including the full costs of developing enabling environments.

In our view markets alone cannot deliver the expected outcomes soon enough to avoid irreversible effects of climate change, therefore a combination of market and non-market mechanisms should be further discussed, negotiated and agreed upon as part of the AWGLCA's work for the coming months.

#### *Mitigation in the agricultural sector*

Considering the relevance of the agricultural sector in our greenhouse inventory, Argentina would like to briefly express its initial views on mitigation actions in this sector.

Argentina supports continuing exploring issues related to the mitigation of greenhouse gases in the agricultural sector, stressing that actions on this sector should take place only if they are adequately supported by the international cooperation.

In this sense, Argentina would like the AWG-LCA to further consider the implications of some of the findings presented in the technical paper prepared by the Secretariat regarding "Challenges and opportunities for mitigation in the agriculture sector", inter alia, the limitations that mitigation on this sector presents, such as the pressure of the global food supply in a context in which the world population will continue growing; and the diversity of social, economic and environmental circumstances of each country. The report also mentions methodological difficulties and high uncertainty due to lack of information as well as a list of barriers to implementation such as high transaction costs, issues of competitiveness, high costs of measurement and verification of emissions reduction, availability of capital for investment and slow progress in technological development.

The documents highlights that the materialization of the full mitigation potential for the agriculture is a complex issue. World population and food supply trends indicate that mitigation actions in the agricultural sector should be based on efficiency improvements rather than absolute reductions of GHGs. Developed countries participation will be needed for the improvement of existing and development of new, more efficient production methods in order to meet the future global demand for food. International cooperation for research and development will also be needed to face challenges such as the decrease of land availability due to competition with other land uses and to the effects of climate change.

We deem necessary that mitigation actions on the agricultural sector contemplate social, economic and environmental circumstances for each country as well as the diversity in agricultural systems that suggest that not all mitigation options and technologies are applicable in all countries.

Finally, in view of this diversity, methodological issues such as the establishing of baselines and monitoring methodologies are particularly relevant and should be discussed and scientifically dealt with in the months ahead.

#### *Reducing emissions from deforestation and forest degradation in developing countries*

On reducing emissions from deforestation and forest degradation (REDD) as well as on the role of conservation, sustainable forest management and enhancement of forest carbon stock in developing countries, Argentina considers that these are key issues for the ongoing negotiations under the AWG-LCA and that they should be an important part of the global agreement to be reached in Copenhagen 2009, not only for the enormous potential they have for GHG mitigation but also for their intrinsic relationship to sustainable development.

In this sense, Argentina would like to recall the importance of the principle of common but differentiated responsibilities when Parties discuss the items of this agenda, considering that the impacts of any decision adopted on reducing emissions from deforestation and forest degradation may have consequences on the sustainable development of countries. According to the Bali Action Plan, developing country Parties should consider national "appropriate mitigation actions, in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner."

It is critical to ensure that efforts made by developing countries to reduce emissions from deforestation and forest degradation are supported by the appropriate financial resources and other positive incentives



from developed countries. However, at the same time we need to ensure that these financial resources do not come only after developing countries have been successful in reducing deforestation rates. In this sense, Argentina believes that there is a need to build on the spirit of long-term cooperative action that should lead to collaboration to reach common goals and share the risks involved in the process.

Finally, regarding SBSTA's request for "guidance from the AWG-LCA in relation to decision 1/CP.13, paragraph 1 (b) (iii), that would facilitate further progress on methodological issues relating to decision 2 CP.13, paragraph 11", we propose, due to time constrain to reach a global agreement in December 2009 and to the relevance of REDD, to concentrate the discussions on these issues under the AWG-LCA thus allowing for an integral debate that deals with technical, financial and political issues unique to this subject.

***c) On enhanced action on adaptation***

As mentioned above, an early definition of long-term goals will facilitate determining the level of effort in terms of technology development and transfer and financing required for adaptation actions in developing countries.

Elaboration of national adaptation programs of actions (NAPAs) or similar approaches conducted in all developing countries could greatly contribute to assessing, identifying and prioritizing adaptation actions among developing countries. The creation of enabling environments such as institutional capacity building as well as a regulatory framework that contributes to diversify economic activities to strength economic resilience should be part of the national adaptation planning. Adaptation planning should also address risk management and risk reduction strategies, including risk sharing and insurance mechanisms.

Recalling Article 4, paragraph 8 of the Convention, decision 5/CP 7 and decision 1/CP 10; also recognizing that developing countries, which are generally located in highly climate vulnerable areas, require more accurate scientific information on climate change scenarios and climate model outputs, appropriate diagnostic and policy tools. The economic evaluation of the impacts of climate change is a key dimension to any national plan.

Regarding the financial support for national adaptation actions, we are concerned about the diversity of funds created or being created both within and outside the UNFCCC with the subsequent dilution and ineffectiveness of the efforts made. We would like to express our preference for a funding mechanism for adaptation structured and governed under the UNFCCC. We believe that the funds available under the Convention should aim to cover all financial needs for developing countries to adapt to the adverse impacts of climate change. In this sense, as discussions under the AWG-LCA on how to scale up finance to meet developing countries adaptation needs is in progress, we think that the G-77 and China Proposal for the Development of a Financial Mechanism for Meeting Financial Commitments under the Convention should be properly considered

In addition to that, there is need to facilitate funding for already identified adaptation projects, programmes or actions, such as those arising from national sustainable development strategies, poverty reduction strategies, national communications and national adaptation programmes of action and other relevant instruments.

In this sense, Argentina recognizes that highly vulnerable countries to the impacts of climate change should be a priority for financing adaptation measures and actions; however, we would like to stress the urgent need for all developing countries to be fully represented in any future agreement on adaptation in the framework of the AWG-LCA taking into account the particularities of each country such as vulnerable ecosystems identified in the IPCC 4th Assessment Report.

As an example, for coastal tourism, the most impacted countries will be those that are threatened by windstorms and projected sea-level rise (SLR), such as Argentina. Thus, climate change is very likely to be a major challenge for all coastal nations. (IPCC AR4). Increases in non-eustatic factors (i.e., an increase in 'sudestadas' - a strong south-eastern wind along the Rio de la Plata coast) and freshwater flow, the latter often associated with El Niño, would accelerate SLR in the Río de la Plata, having diverse

environmental and societal impacts over the next few decades, i.e., coastal erosion and inundation. Low-lying areas (estuarine wetlands and sandy beaches very rich in biodiversity) will be highly vulnerable to SLR and storm surges (southern winds). Loss of land would have a major impact on the tourism industry.

Being agriculture a very important economic activity representing about 10% of the gross domestic product (GDP) of Latin America, studies in Argentina, Chile, Uruguay and some other Latin American countries based on General Circulation Models (GCMs) and crop models project decreased yields for numerous crops (e.g., maize, wheat, barley, and grapes) even when the direct effects of CO<sub>2</sub>-fertilisation and implementation of moderate adaptation measures at the farm level are considered. Moreover, heat waves in central Argentina have led to reductions in milk production in Argentine Holstein dairy cattle, and the animals were not able to completely recover after these events. Furthermore, the combined effects of climate change and land-use change on food production and food security are related to a larger degradation of lands and a change in erosion patterns. According to the World Bank, some developing countries are losing 4-8% of their GDP due to productive and capital losses related to environmental degradation. In drier areas of Latin America, such as western and north-west Argentina climate change is likely to lead to salinisation and desertification of agricultural lands. According to the IPCC, by 2050, desertification and salinisation will affect 50% of agricultural lands in Latin America and the Caribbean zone.

Stress on water availability and quality has been documented where lower precipitation and/or higher temperatures occur. For example, droughts related to La Niña create severe restrictions for water supply and irrigation demands in central western Argentina between 25°S and 40°S. Being hydropower the main electrical energy source for most countries in Latin America, it is vulnerable to large-scale and persistent rainfall anomalies due to El Niño and La Niña that affect Argentina, among other LA Countries (AR4).

In terms of health impacts, AR4 indicates that outbreaks of Hantavirus pulmonary syndrome have been reported for Argentina and other Latin American countries, after prolonged droughts.

As mentioned previously, these scientific findings stress the urgent need for the implementation of adaptation actions in all developing countries and therefore the need for their full representation in the future global agreement on adaptation under the UNFCCC.

***d) On enhanced action on technology development and transfer and on the provision of financial resources and investment***

As mentioned previously, we strongly believe that adaptation, mitigation, technology transfer and financing are intrinsically related in nature and they should be discussed and negotiated as such; therefore our comments on each of these issues are intertwined with comments and suggestions related to the others.

Argentina associates itself with the proposal made by the G77 and China on the creation of a new body on technology transfer under the Convention to enhance the implementation of technology transfer mechanisms as well as the associated enabling activities such as capacity building, technical training, and research and development cooperation.

In our view, the scope of this new body under the Convention should also include the supervision of the financing mechanisms, either market or non-market, to be established as part of the global agreement to be reached in Copenhagen. Then, the new body would be able to take note of, and eventually to harmonize, technology and financial flows necessary to carry out national appropriate mitigation and adaptation actions in developing country Parties. The new body would facilitate making both the actions and the support for the actions measurable, reportable and verifiable.

In addition, we believe that the new body, with the assistance of technical groups to be created, could articulate technology transfer and financing mechanisms under the Convention with other UN organisms, with multilateral financial institutions established under bilateral or multilateral development programs and with other relevant international forums not directly related to climate change; we deem this articulation critical for the success of the implementation of the climate change agreement.

With regard to the provision of financial resources and investment to support action on both mitigation and adaptation as well as on technology cooperation, as contained in the Bali Action Plan, and according to the implementation of commitments mandated under articles 4.3, 4.4, 4.5, 4.8 and 4.9 of the Convention, Argentina emphasizes the urgent need for the provision of those financing resources under the UNFCCC. In our view, this is critical to enabling developing countries to respond to this challenge in a timely manner.

This provision of financial support by developed countries should be based on the guiding principles of common but differentiated responsibilities as well as their historical contribution and responsibility in relation to climate change, with an emphasis on transparency and efficiency, allowing non-Annex I Parties direct access to funding. Financial flows for mitigation and adaptation technologies and associated enabling activities should be predictable and stable, in accordance to article 4.3, 4.4 and 4.5 of the Convention, and should cover the agreed full incremental costs for the implementation of developing countries' actions under Article 4.1, and agreed full costs for the preparation of national communications and the implementation of action programmes developed under the Convention.

The Government of Argentina considers that the new body proposed under the Convention would facilitate links for accessing available funds and would reduce diversification among existing sources of funds within and outside the Convention.

In addition to our support the creation of a body on technology transfer and financing mechanisms, we would like to highlight several issues regarding the creation of enabling environments in developing countries that will contribute to smooth the transfer of technologies for mitigation and adaptation. Activities that lead to the creation of enabling environments should be performed at all stages of the technology transfer cycle, i.e. research and development (R&D), human and institutional capacity building, and technology demonstration, deployment and diffusion. Transfer of technologies should also be supported by appropriate domestic policies, regulations and standards, and institutional arrangements in the recipient countries; the elaboration of NAMAs and NAPAs will contribute to communicate to Parties the situation on this regard.

We would like to stress the need for R&D collaboration between national and regional research centres in a North-South and South-South cooperation scheme. Enhancing international cooperation on R&D of specific technologies and promoting joint-ventures to accelerate deployment, diffusion and an effective transfer of technologies from developed to developing countries will contribute to effectively deal with intellectual property rights issues among parties involved. We believe that the elaboration, coordination and implementation of multilateral R&D programs could be one of the first actions of the new body on technology transfer and financing mechanisms. We highlight the work being done by the Expert Group on Technology Transfer (EGTT) in this regard, in particular the interim report on developing a long-term strategy paper on technology development and transfer that can provide valuable inputs at this stage of the work of the AWG-LCA.

PAPER NO. 2: ARGENTINA, CHILE AND URUGUAY

**Submission for the Ad-Hoc Working Group on Long-Term Cooperative Action  
(AWG-LCA)**

**Views on ENHANCED ACTION ON ADAPTATION**

Recalling Article 4, par. 8 of the Convention, decision 5/CP.7 and decision 1/CP.10; also recognizing that developing countries, which are generally located in highly climate vulnerable areas, require more adequate information, appropriate diagnostic and policy tools, as well as financing for adaptation, Argentina, Chile and Uruguay would like to submit their views on the need for funding for adaptation.

The economic evaluation of the impacts of climate change is a key dimension to any national plan. For coastal tourism, the most impacted countries will be those that are threatened by windstorms and projected sea-level rise: such as Argentina, Chile and Uruguay. Thus, climate change is very likely to be a major challenge for all coastal nations. (IPCC AR4).

Increases in non-eustatic factors (i.e., an increase in 'sudestadas' - a strong south-eastern wind along the Río de la Plata coast) and freshwater flow, the latter often associated with El Niño, would accelerate sea level rise (SLR) in the Río de la Plata, having diverse environmental and societal impacts on both the Argentine and Uruguay coasts over the next few decades, i.e., coastal erosion and inundation. Low-lying areas (estuarine wetlands and sandy beaches very rich in biodiversity) will be highly vulnerable to SLR and storm surges (southern winds). Loss of land would have a major impact on the tourism industry, which accounts for 3.8% of Uruguay's GDP. (IPCC AR4)

Regarding precipitation patterns, the AR4 confirms that a declining trend in precipitation was observed in southern Chile and south-west Argentina, among others.

On the other hand, sea-level rise is very likely to affect the location of fish stocks in the south-east Pacific (e.g., in Peru and Chile).

Being agriculture a very important economic activity representing about 10% of the gross domestic product (GDP) of Latin America, studies in Argentina, Chile, Uruguay and some other Latin American countries based on General Circulation Models (GCMs) and crop models project decreased yields for numerous crops (e.g., maize, wheat, barley, and grapes) even when the direct effects of CO<sub>2</sub>-fertilisation and implementation of moderate adaptation measures at the farm level are considered. Moreover, heat waves in central Argentina have led to reductions in milk production in Argentine Holstein dairy cattle, and the animals were not able to completely recover after these events.

Furthermore, the combined effects of climate change and land-use change on food production and food security are related to a larger degradation of lands and a change in erosion patterns. According to the World Bank, some developing countries are losing 4-8% of their GDP due to productive and capital losses related to environmental degradation. In drier areas of Latin America, such as central and northern Chile and western and north-west Argentina climate change is likely to lead to salinisation and desertification of agricultural lands. According to the IPCC, by 2050, desertification and salinisation will affect 50% of agricultural lands in Latin America and the Caribbean zone.

Glaciers in Latin America have receded dramatically in the past decades, and many of them have disappeared completely. According to AR4, one of the most affected sub-regions is southern Chile. Moreover, this report adds that recent studies indicate that most of the South American glaciers from Colombia to Chile and Argentina, (up to 25°S) are drastically reducing their volume at an accelerated

rate. Considering that one of the largest freshwater reserves of the world is located in this Region, if this trend continues, will severely threaten this vital water source.

Stress on water availability and quality has been documented where lower precipitation and/or higher temperatures occur. For example, droughts related to La Niña create severe restrictions for water supply and irrigation demands in central western Argentina and central Chile between 25°S and 40°S. Being hydropower the main electrical energy source for most countries in Latin America, it is vulnerable to large-scale and persistent rainfall anomalies due to El Niño and La Niña, that affects Argentina, Chile and Uruguay, among other LA Countries (AR4).

In Chile, recent studies confirm the potential damage to water supply and sanitation services in coastal cities, as well as groundwater contamination by saline intrusion.

In terms of health impacts, AR4 indicates that outbreaks of hantavirus pulmonary syndrome have been reported for Chile, Argentina and other Latin American countries, after prolonged droughts.

As stated before, Argentina, Chile and Uruguay are particularly vulnerable to climate change, so funding is needed from all available sources and Funds for adaptation in our countries.

National planning for adaptation is necessary to be developed in our countries. There is need to facilitate funding to develop country driven national adaptation strategies or action plans or to improve these strategies or plans when they exist. A way to achieve this could be by developing a NAPA-like process to meet the urgent and immediate needs of developing countries not covered by the LDC Work Programme.

In addition to that, there is need to facilitate funding for already identified adaptation projects, programmes or actions, such as those arising from national sustainable development strategies, poverty reduction strategies, national communications and national adaptation programmes of action and other relevant instruments.

One of the sources of this financial support is the Adaptation Fund. As per decision of the CMP 4, eligible Parties to receive funding from the Adaptation Fund are understood as developing country Parties to the Kyoto Protocol that are particularly vulnerable to the adverse effects of climate change including low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems.

As stated before, Argentina, Chile and Uruguay are particularly vulnerable to climate change, and are expecting the Fund to be fully operational in order to submit projects for funding.

PAPER NO. 3: BELIZE

Submission by the Government of Belize  
to the 5th Session of the Ad Hoc Working Group on Long-term Cooperative Action under the  
Convention (AWG-LCA 5), Bonn, Germany, 29 March - April 2009

**Ideas on paragraph 1 of the Bali Action Plan: Measures to include carbon pools in soils,  
and their improvement with biochar: establishment of global baseline and the  
corresponding monitoring system**

**General considerations**

**Belize** is located 17° 15" North and 88° 45" West, at the eastern coast of Central America facing the Caribbean Sea. Belize's landmass is 22,966 sq km in area, with 22,806 sq km of land and 160 sq km of water bodies. The sustainability of the ecosystems found in Belize is of extreme importance to the whole of Central American ecosystem. The government of Belize has enacted the protection of 39.1% of its land area, including the coastal zone areas, which provide increased benefits to livelihoods for populations from Belize, Honduras, Guatemala and Mexico. Soils of Belize are shaped by warm climates. The different soil types supports extensive forests (broad leaf, pine forests, low scrubby woodlands and coastal mangrove forests) with approximately 12% of these lands deforested primarily to support a growing agriculture and human settlements / urban dwellings. About 90% of such deforestation happens on lands out of the system of national protected areas<sup>1</sup>.

In most of the expected climate scenarios there are increasing risks of not adequately addressing climate change impacts. As regards water, for example, under several scenarios of climate change / global warming, countries with similar economic and environmental conditions like Belize will face severe pressures in their rural sector, with growing trends towards the decrease in the amount of water available, due to – in addition to climate change - deforestation, forest fires, expansion of the agricultural frontier, inappropriate land use, overgrazing, droughts, inadequate infrastructure in rural communities and urbanization. Belize believes that there is the need to establish global baselines on these future events related to land degradation and climate change that may affect directly the livelihoods identified and evaluate them based on the likelihood of their incidence as well as on their level of the impact on vulnerable, rural and urban, populations. Once baselines are established innovative options on soils amendment, such as biochar, could be used under the CDM and other financial mechanisms for mitigation and adaptation within the forthcoming decisions at COP 15 in Copenhagen.

Belize is a Party to the UNFCCC as well as part of the United Nations Convention to Combat Desertification (UNCCD), the institution primarily responsible for the attention of issues of land degradation, desertification and drought (DLDD).

**Carbon pools in Soils**

Sustainable managing soils can help to re-enrich with carbon large areas of land that have been degraded as a result of unsustainable agricultural practices and overproduction on the land. A large potential to sequester carbon is available, particularly in drylands that are marginalized and uncultivated.

Belize agrees that for achieving the ultimate objective of the UNFCCC in a cost-effective manner, there is the need that country parties engage seriously in further practical ways for reducing emissions. These solutions cannot obviate the pools contained in soils. Biochar, or charcoal, is one solution that reverses and slows down the processes of land degradation from, among others, unsustainable agricultural practices. There are many examples of the positive impact of biochar as soil amendment and a feasible mechanism for carbon sequestration; concrete examples are the Chernozems of European Russia and the

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<sup>1</sup> Source: Request for GEF Funding Expedited Medium Size Project Proposal under the LDC-SIDS; Umbrella Project for Sustainable Land Management. Project ID: PIMS 3409.

*Terra Preta* soils of Brazil, which are among the most fertile in the world<sup>2</sup>. Along this line, we agree with the submission to the AW-LCA-4 made by the UNCCD secretariat during COP 14 in Poznan, from which we reiterate some general points:

*“The world’s soils hold more organic carbon than that held by the atmosphere as CO<sub>2</sub> and vegetation, yet the role of the soil in capturing and storing carbon dioxide is often one missing information layer in taking into consideration the importance of the land in mitigating climate change”<sup>3</sup>.*

*“Extraordinary demands are being placed on agricultural systems to produce food, fiber and energy and yet the inevitable changes in the flow of carbon into or out of soils have significant effect on a global scale. Biomass burning and the removal of crop residues reduce carbon in soil and vegetation, which has implications for soil fertility and the global carbon cycle”<sup>4</sup>.*

*“The land has an unparalleled capacity to hold carbon and to act as a sink for green house gases making it imperative to focus on activities that enhances rehabilitation, protection and sustainable management of degraded lands. Conventional means to increase soil carbon stocks depend on climate, soil type and site specific management. There exist opportunities to include sustainable land management processes and in particular the use of biochar into the CDM negotiation process through focused policy actions that include institutional synergy as well as better understanding of the sustainability cost-benefit of Biochar. This process could be undertaken starting in Poznan and towards the Copenhagen agreement”<sup>5</sup>.*

Belize agrees that carbon in soils<sup>6</sup> provides an innovative opportunity to UNFCCC negotiations within the Copenhagen negotiation process; this is true when considering not only the incentives for sustainable land management, but also on the benefits that biochar practices produce on soil fertility and renewable energy production through pyrolysis<sup>7</sup>. Annex-I countries and primary / secondary producers of non-annex I countries can directly benefit from the inclusion of carbon pools in soils. When deciding on methodologies for project-based action for carbon sequestration from soils, including biochar, issues on integration of several agricultural systems can be done in a synergistic way. The end result could be that land use systems, such as shifting cultivation can benefit from increased and sustained soil fertility.

### **Defining the Global Baseline**

As in other decisions adopted within the UNFCCC framework<sup>8</sup>, there is the need for further research and development on carbon pools contained in soils. Parties may decide first on establishing the proper global baseline, including the time period, to gather the required information on climate scenarios and climate models for carbon in soils, including biochar.

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<sup>2</sup> <http://www.unccd.int/publicinfo/poznanclimatetalks/menu.php>.

<sup>3</sup> Taken from <http://www.unccd.int/publicinfo/poznanclimatetalks/menu.php>. Submission by the UNCCD at the 4th Session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA 4), Poznan, 1-10 December 2008.

<sup>4</sup> Ibid

<sup>5</sup> In addition to UNCCD source, please see: <http://africaclimate.org/>

<sup>6</sup> Tillage, an aboveground practice, has been already reported upon. See [http://www.ipcc.ch/ipccreports/sres/land\\_use/226.htm](http://www.ipcc.ch/ipccreports/sres/land_use/226.htm). Biochar refers mainly to carbon in the ground.

<sup>7</sup> Biochar also is a source for renewable energy using the process of pyrolysis, which is a process that combines management of soils in a sustainable manner (carbon sequestration) and renewable energy production. The already referred upon UNCCD 2008 submission to LCA-4 states that: *“The process of pyrolysis or carbonization is known globally and can be implemented at both small scale (e.g. cooking stove) and large scale levels (e.g. biorefinery)”*.

<sup>8</sup> The IPCC reports the following: *“There would be implications for all three ARD activities if Parties were to adopt an extension beyond the Workbook. Carbon pools are limited to changes in aboveground biomass and soil carbon in the Workbook. Additional carbon pools are discussed in and can be accounted for using the approach laid out in the Reference Manual. According to the rules, modalities, and guidelines agreed to under Articles 3.3 and 5.2, however, Parties may decide that accounting methods for these additional carbon pools may need to be developed and provided in the Workbook.”* See: [http://www.ipcc.ch/ipccreports/sres/land\\_use/305.htm](http://www.ipcc.ch/ipccreports/sres/land_use/305.htm).

The following technical issues should be discussed for a decision on a global baseline:

- Availability of the required climate data related to carbon pools in soils,
- Assessment in the context of particular climate scenarios that consider soils, including agro-climatic indices, and ongoing efforts<sup>9</sup>,
- Review current methods used to monitor and assess projects related to soils, i.e., lands rehabilitated with eligible practices related to biochar, such as forestation / reforestation, rural-urban issues, agriculture and land management,
- Establishment of indicators and guidelines for monitoring and assessment,
- Methodological surveys on land use for baseline determination,

The main criteria we envisage as priority to consider are:

- Emission reduction
- Employment generation
- Poverty reduction measures
- Water availability

**Soils: an option for moving forward in Copenhagen.**

In accordance with the rules of procedure to be applied at COP 15, Belize requests that due to the significant role played by soils in capturing carbon and therefore helping in the realization of the ultimate objective of the convention, carbon pools contained in soils be subject to discussion and placed in the agenda of COP 15 for a decision on the matter. One such a way proposed is to immediately exchange on baseline scenarios to monitor and assess this significant issue related to mitigation and adaptation to climate change.

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<sup>9</sup> Under the UNCCD process there have been efforts on baseline determination, such as thematic programme networks commonly accepted benchmarks and indicators and platforms to facilitate desertification monitoring and assessment.



PAPER NO. 4: BRAZIL

**VIEWS AND PROPOSALS ON PARAGRAPH 1 OF THE BALI ACTION PLAN**

**6 February 2009**

Brazil recalls the conclusions of the AWG-LCA sessions (documents FCCC/AWGLCA/2008/8 and FCCC/AWGLCA/2008/L 10), and welcomes the opportunity to submit additional views and proposals on paragraph 1 of the Bali Action Plan.

The Bali Action Plan is clear regarding its mandate, which is to “enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012”. This demands addressing implementation flaws, such as the lack of adequate financial and technological support from Annex II Parties to non-Annex I Parties. The mandate also establishes a boundary regarding issues which are not a legitimate part of the negotiation. Dealing with full, effective and sustained implementation of the Convention does not authorize, for example, the renegotiation of its commitments or of the careful balance between those it establishes for Annex I Parties and non-Annex I Parties.

The climate change regime operationally defines developed countries as Annex I Parties and/or Annex II Parties and developing countries as non-Annex I Parties. The Bali Action Plan does not authorize any renegotiation of this, nor does it warrant proposals for establishing new categories of countries or “graduation” of countries from one category to another. The developing countries, according to their specific capabilities, will implement different mitigation and adaptation actions, with different results.

The outcome of the Bali Action Plan must strengthen the climate change regime by generating enhanced action. It does not create opportunities for reducing existing national commitments to a lower level of stringency. Based as it is on the Convention and respecting the distinction between its subparagraphs 1b(i) and 1b(ii), the Bali Action Plan will maintain the difference, both in intensity and legal nature, between the contributions of developed and developing countries.

The outcome should include economy-wide quantified emission reduction commitments for non-Kyoto Annex I Parties, which should be comparable, in nature, intensity and compliance requirements, to the quantified emission reduction commitments defined in Annex B of the Kyoto Protocol. What is measured, reported and verified, in this case, is compliance with commitments.

The outcome should also include a decision creating an arrangement, such as an international registry, which would directly associate specific mitigation actions by developing countries and the financial and technological support offered by developed countries for each of these actions. What is measured, reported and verified, in this case, is the mitigation result generated by each action and the financial and technological support awarded to each action. The two MRVs are linked in a single instrument.

The G77 and China has proposed assessed financial contributions from developed countries, at a level of 0,5% to 1% of their GNP. Information from the registry on support offered by developed countries would allow for verification of compliance regarding these contribution commitments.

The financing commitments for developed countries defined by the Convention and the Bali Action Plan are an expression of the principle of common but differentiated responsibilities. Proposals to divide the burden of financing between developed and developing countries, such as global carbon taxes, contradict this principle and the basic rules of the climate change regime and it is, therefore, unacceptable and in contravention to the Bali Action Plan.

The full, effective and sustained implementation of the Convention would not require amendments to this legal document. Brazil believes that amendment proposals fall outside of the Bali Action Plan mandate. In this regard, the Bali Action Plan negotiations are clearly distinct from the AWG-KP negotiations, which have as their specific objective the amendment of Annex B of the Kyoto Protocol (along with consequential amendments to the Kyoto Protocol which are required by the amendment of Annex B), in order to define more stringent quantified emission reduction commitments for Annex I Parties in the second commitment period. Regarding the legal nature of the outcome of the Bali Action Plan, Brazil believes it could be expressed, for example, in a set of COP decisions.

The Bali Action Plan links cooperative sectoral approaches to article 4.1(c) of the Convention. Brazil, therefore, does not consider such an approach as an instrument to define universal standards, transnational sectoral mitigation targets or national sectoral mitigation targets for any country, even less for developing countries. Developed countries that wish to use sectoral approaches as a mechanism to help define their economy wide quantified emission reduction commitments may of course do so. REDD is very important as a mitigation action for developing countries with tropical forests, such as Brazil. Brazil expects that REDD will get the same level of financing and technology support as all other mitigation actions by developing countries.

PAPER NO. 5: CHINA

**CHINA'S VIEWS ON THE FULFILLMENT OF THE BALI ACTION PLAN AND THE COMPONENTS OF THE AGREED OUTCOME TO BE ADOPTED BY THE CONFERENCE OF THE PARTIES AT ITS 15<sup>TH</sup> SESSION**

6<sup>th</sup> February 2009

China presents this document as a submission of views on the fulfillment of the Bali Action Plan and the components of the agreed outcome to be adopted by the Conference of the Parties at its Fifteenth Session, as requested by the UNFCCC Secretariat in the document ODES/COP14/09. China welcomes the opportunity to submit additional views on paragraph 1 of the Bali Action Plan in accordance with documents FCCC/AWGLCA/2008/8, paragraph 25 and FCCC/AWGLCA/2008/L.10, paragraph 2(a)

**1. A shared vision for long-term cooperative action**

- a) The discussion on a shared vision for long-term cooperative action is an exchange of views or ideas about how to enable the full, effective and sustained implementation of the Convention, focusing on the means to implement long-term cooperative action under the framework of the Convention.
- b) A shared vision is for long-term cooperative action, such a vision shall be guided by the ultimate objective of the Convention, which consists of the following three aspects: to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system; to adapt to the impacts of climate change; and to realize sustainable development. A shared vision for long-term cooperative action should be comprehensive and include mitigation, adaptation, finance, technology as well as sustainable development.
- c) A shared vision shall be guided by the principles of common but differentiated responsibilities and equity, which are established by the Convention to guide the international community in addressing climate change and shall be the essential guiding principles to carry out the shared vision for long term cooperation.
- d) Any long-term global goals shall be down-to-earth and based on the present situation. The most urgent requirement at present is to set a mid-term emission reduction target for developed country Parties, rather than a long-term global goal. Only with such a mid-term target being clearly determined, is it meaningful to talk about any long-term goals for emission reductions. All developed country Parties to the Convention shall commit to a reduction in GHG emissions by at least 25-40% below 1990 levels by 2020.
- e) The right to development is a basic human right that is undeprivable. For developing countries, development is not only a fundamental condition to address climate change, but also an important element to maintain peace and security of the world. The right to development of developing countries should be adequately and effectively respected and ensured in the process of global common efforts in fighting against climate change. Developed country Parties shall continue to take the lead in reducing their GHG emissions so as to ensure adequate spaces for developing countries to achieve the goals of substantive development and eradication of poverty.

## **2. Enhanced national/international action on mitigation of climate change**

- a) According to Paragraph 1 (b) (i) of the BAP, all Annex I Parties, whether they are Parties to the Kyoto Protocol or not, shall commit to legally-binding quantified emission reduction targets. Emission reduction targets committed by developed country Parties to the Convention shall be comparable to targets committed by developed country Parties to the Kyoto Protocol.
- b) The national mitigation actions by developed countries in terms of quantified emission reductions and the progress of fulfilling their commitments shall both be measurable, reportable and verifiable. Similar arrangements shall be applied to the quantified emissions reduction commitments of developed countries under the Kyoto Protocol, with a more robust compliance system based on existing mechanisms to prevent non-compliance.
- c) Nationally appropriate mitigation actions by developing countries shall be country-driven, in conformity with the legitimate and prior needs of developing countries for sustained economic growth and eradication of poverty. The form of specific actions shall be subject to the determination of each developing country, taking into account its respective capacities and specific national circumstances.
- d) MRV requirements on nationally appropriate mitigation actions by developing countries are only applicable to the mitigation actions per se and shall be undertaken by their national entities in accordance with their national circumstances and practices. Provision of support in terms of technology transfer, financing and capacity building by developed country Parties to developing countries shall be measured, reported and verified in a proper manner.
- e) All related negotiations and conclusions on nationally appropriate mitigation actions by developing countries shall strictly follow the mandate of the AWG-LCA under the Bali Action Plan, focusing on enabling the full, effective and sustained implementation of the Convention.
- f) According to Paragraph 1 (b) (iv) of the Bali Action Plan and Article 4, paragraph 1(c), of the Convention, cooperative sectoral approaches and sector-specific actions shall strictly focus on enhanced cooperation between Parties at sectoral levels for the purpose of promoting development, deployment, diffusion and transfer of GHG emissions control technologies, practices and processes.

## **3. Enhanced action on adaptation**

- a) With regard to National Planning for Adaptation:
  - i. Prepare National Adaptation Programmes of Action (NAPAs) in all developing countries:
    - o Assess the vulnerability to current climate variability, extreme events and future climate change;
    - o Assess adaptation cost and identify key adaptation measures;
    - o Identify priority activities/projects intended to address urgent and immediate adaptation needs of developing country Parties.
  - ii. Integrate climate change considerations into their relevant social, economic and environmental policies and actions.

- b) With regard to Streamlining and Scaling up Financial and Technological Support:
  - i. The developed country Parties shall fulfill their commitments as stipulated in Article 4.3, 4.4, 4.5, 4.8, and 4.9 under the Convention to provide new, additional, adequate, and predictable resources for the implementation of adaptation;
  - ii. Establish Adaptation Fund under the Convention. Annex I Parties shall provide necessary financial resources, including assessed contributions. The fund shall be used to support and enable developing country Parties to:
    - Prepare NAPAs;
    - Integrate adaptation actions into sectoral and national planning;
    - Improve the assessment on vulnerability and adaptation, including assessment of adaptation cost;
    - Implement urgent adaptation actions;
    - Implement adaptation projects and programmes;
    - Implement risk management and risk reduction strategies;
    - Build climate resilience through economic diversification;
    - Exchange information;
    - Promote education, training and public awareness related to climate change;
    - Enhance capacity building, including institutional capacity, for preventive measures, planning, preparedness of disasters relating to climate change;
    - Have access to adaptation technologies, develop and enhance endogenous capacities and technologies;
- c) With regard to Enhancing Knowledge Sharing:
  - i. Support public information and awareness;
  - ii. Establish and maintain databases on adaptation related information;
  - iii. Prepare and disseminate compilations and syntheses of best practices for adaptation;
  - iv. Strengthen information Networks.
- d) With regard to Institutional Framework of Action:
  - i. Establish “Regional Adaptation Network Centers” in Asian, African, Pacific, South American regions for capacity building and knowledge sharing, etc. The centers shall:
    - Provide research, training, education as well as scientific and technical support in specialized fields of climate change;
    - Enhance capacity, including institutional capacity, to integrate adaptation into sustainable development programmes;
    - Coordinate and disseminate information on best practices and technology transfer;
    - Support pilot or demonstration projects;
    - Support capacity building, including institutional capacity, on preventive measures, planning, preparation of disasters related to climate change;
    - Strengthen early-warning systems for extreme weather and/or climate events.

- ii. Establish “Adaptation Committee” under the Convention to enhance adaption actions. The committee shall provide guidance for enhancing adaptation, planning, capacity building, information sharing, monitoring and evaluating adaptation actions.

#### **4. Enhanced action on technology development and transfer**

- a) A subsidiary body under the Convention shall be established by the COP;
  - i. Organizational framework. The Subsidiary Body for Development and Transfer of Technologies shall be an operational and implementing body. It consists of a strategic planning committee and several panels on (1) technology needs assessment and information; (2) dialogue and coordination for enabling policy and measures, intelligent property management; (3) management of financial resources targeting at development, transfer, and deployment (D&T&D) of environmentally sound technologies (ESTs); (4) capacity building; and (5) monitoring and assessment of performance.
  - ii. Functions.
    - Provide advice, guidance and recommendations;
    - Coordinate actions by different international stakeholders and governments’ policies;
    - Guide and supervise utilization of special TT fund based on public finance;
    - Promote communication and info/knowledge sharing; and
    - Monitor and assess the performance and progresses.
  - iii. Governance: member distribution and decision-making process. The Subsidiary Body for Technology is open to all the Parties. Members of corresponding committee and panels shall be determined by the COP. Decisions shall be made by consensus.
- b) Performance assessment and monitoring. The performance assessment and monitoring should touch upon the ultimate effectiveness of real development and transfer of ESTs and provide for a data/information and technical basis on which the support from developed countries is measured, reported, and verified. The speed, range, scale, and barriers of technological flows from developed to developing countries shall be regularly monitored and assessed. A set of indicators, data base, steps and modalities shall be developed to implement monitoring and assessment. The results of monitoring and assessment shall be fully used for planning and further decisions;
- c) Financial mechanism. The basic idea of the financial mechanism supporting D&T&D of ESTs is to develop public private partnership by linking public finance with carbon market, capital market and technology market and, leveraging larger amount of private finance by smaller amount of public finance. A Multilateral Technology Acquisition Fund (MTAF) shall be established with sources mainly from public finance from developed countries. The sources for the MTAF may be from parts of the regular fiscal budget for R&D, fiscal revenues from taxation on carbon transaction and/or auction of emission permit in carbon market, as well as fiscal revenues from energy or environmental taxation. Significant amount of fund from the above mentioned potential sources should be made available for the MTAF annually specifically for development and transfer of ESTs into developing countries in a timely manner. The MTAF shall be used as a catalyst to provide

stakeholders with incentives to implement D&T&D of ESTs by means of proper policy instruments, financial instruments/products and investments;

- i. The policy instruments, among others, may include:
  - Subsidies in R&D for invention and demonstration of identified ESTs in prioritized areas;
  - Insurance to curb risks of investment in D&T&D of new ESTs;
  - loan guarantee or subsidies for exporting and diffusing ESTs;
  - Direct investment in D&T&D of ESTs as share holder in normal forms or via venture capital investment;
  - Investment in financial products related to D&T&D of ESTs by holding stocks, bonds and other potential financial products;
  - Investment in infrastructures like information, transaction platform, monitoring and enforcement system;
  - Expenses on capacity building in developing countries with development of human resources as a priority;
  - Purchases of ESTs by governments;
  - Permits, compulsory licensing for patented ESTs, etc.; and
  - Others.
- ii. Incremental costs for D&T&D of ESTs in developing countries shall be compensated by appropriate policy instruments as mentioned above. Agreements shall be reached on methodologies to determine baseline cost of technological change in specific sectors and technological areas, against which incremental costs are estimated;

Full costs of such activities as capacity building, technology need assessment, information service, construction of policy infrastructure, among others, shall be covered by the proposed financial mechanism. Capacity building related to development and transfer of ESTs may concentrate more on institutional development focusing on capacity enhancement of implementation and enforcement of policies and human resources development by conducting international training and exchange scheme for trainees from developing countries.

- d) With regard to Intellectual Property Rights. The existing IPR system does not match the increasing needs for accelerating D&T&D of ESTs to meet challenges of climate change. Compulsory licensing related patented ESTs and specific legal and regulatory arrangement to curb negative effects of monopoly powers shall be put in place as part of the efforts to implement the UNFCCC. An innovative IPR sharing arrangement shall be developed for joint development of ESTs. Specific measures, steps and modalities should be developed in order to make ESTs developed by public finance in developed countries remain in public domain and available, affordable and transferable to developing countries on preferential terms.
- e) With regard to Cooperative Sectoral Approaches and Sector-Specific Actions. Cooperative sectoral approaches and sector-specific actions shall enhance the implementation of Article 4, paragraph 1 (c), of the Convention. To this end, priority areas shall be identified sector by sector and technology by technology. Most climate sensitive sectors, including GHG-intensive and climate-vulnerable sectors shall be fully considered for D&T&D of ESTs. A list of major ESTs needs shall be assessed

on a regular basis with analysis of reliability, costs, penetration range, sectoral shares of market production capacity and market obstacles. Measures shall be taken to overcome obstacles of D&T&D in specific sectoral context.

**5. Enhanced action on the provision of financial resources and investment**

- a) China fully supports the establishment of a Financial Mechanism for Meeting Financial Commitments under the Convention, proposed by the Philippines on behalf of G77 and China, for the operationalisation of an effective financial mechanism under the COP.
- b) Developed country Parties shall take substantive action to provide financial resources from their public finance on a grant basis to developing country Parties, in accordance with Article 4.3, 4.4, 4.5, 4.8, 4.9 and Article 11 of the Convention.
- c) The financial resources provided by developed country Parties shall be new, additional, adequate, predictable and sustainable. The funding scale shall be at the level of a certain percentage, e.g. 0.5%-1%, of their annual GNP in addition to the existing ODA.
- d) The developed country Parties shall fulfill their financial commitments under the Convention in a measurable, reportable and verifiable manner; any funds pledged outside the UNFCCC shall not be regarded as the fulfillment of commitments by developed country Parties for the implementation of Article 4.3 of the Convention and the Bali Action Plan.
- e) The funding is used to enhance actions on adaptation, mitigation and technology development and transfer, as well as related capacity building. For this purpose, it is suggested that the institutional arrangement be composed of the Convention Adaptation Fund, the Mitigation Fund and the Multilateral Technology Acquisition Fund. Innovative financial instruments, e.g. Venture Capital Fund and Climate Insurance Fund, could be developed and integrated into the financial mechanism, for addressing risks associated with climate change.
- f) The governance of the financial mechanism shall be under the authority and guidance of the COP with equitable and balanced representation of all Parties in a transparent and efficient manner. The funds under the financial mechanism shall be managed with easy accessibility and low administrative cost. The financial mechanism shall be operated by a Board accountable to the COP, with the support of a Secretariat, a Scientific Advisory Panel, a Monitoring and Evaluation Panel, and a Trustee or Trustees.
- g) The financial mechanism shall facilitate linkages between various funding sources and separate funds in order to promote access to a variety of available funding sources and reduce fragmentation. Modality/ies of determining the role of existing funds and entity/ies for the operation of the mechanism shall be developed.



PAPER NO. 6: COLOMBIA

**Colombia's submission for the Chairman's revised Assembly Document  
"Ideas and proposals on paragraph 1 of the Bali Action Plan"**

(FCCC/AWGLCA/2008/16/Rev.1, Chair's "Assembly Document")

**ADAPTATION**

**SHARED VISION FOR ENHANCED ACTION ON ADAPTATION**

Developed countries should strengthen their support in order to help developing countries through different financing options, such as the share of proceeds from joint implementation and emissions trading, taxing of carbon intensive goods and services, and other assessed contributions from developed countries that should be predictable, sufficient and of long term.

Adaptation means should take into account developing countries' resilience as well as urgent needs for adaptation.

We believe that this is the opportunity for developed countries to provide a clear statement of political will what should provide and increase the mobilization of resources for adaptation in a framework with clear guidance and greater clarity for investment decisions.

**ENHANCED ACTION ON ADAPTATION**

Colombia believes that the adverse effects of climate change affect all developing countries.

Colombia highlights the importance of having economic information to understand the costs of adaptation and national capacity assessments.

Colombia supports the idea of the replication of successful initiatives in community- based disaster risk reduction and community based adaptation to strengthen communities' resilience as a tool for risk management.

We support the development and implementation of private insurance mechanisms, micro insurance and/or indexed insurance mechanisms as tools for reduction/risk prevention activities.

Another necessary tool is territorial planning. We believe adaptation strategies should be incorporated into territorial planning, and risk derived from climate change should be modeled and scaled down to useful scales in order to be incorporated into the development plans at a local level. We highlight the importance of establishing a Regional Centre for Adaptation in all regions, including in Latin America.

Finally, we strongly support Hyogo's framework. This is a scientific community that has worked in disaster reduction, risk management, adaptation and resilience. These studies, frameworks etc, should be taken into account by the UNFCCC for the discussions on adaptation.

PAPER NO. 7: CUBA

**“THE FULFILLMENT OF THE BALI ACTION PLAN AND THE COMPONENTS OF THE AGREED OUTCOME TO BE ADOPTED BY THE CONFERENCE OF THE PARTIES AT ITS FIFTEENTH SESSION (AWG-LCA)”. SUBMISSION OF VIEWS.**

Cuba, a developing country, highly vulnerable to the effects of climate change, attaches great importance to the process being carried out under the Bali Action Plan, whose negotiating format has been agreed for 2009.

Throughout this process, Cuba has sustained –and will continue to sustain- its positions within the framework of G-77 and China and the Small Island Developing Countries Alliance. It is within this framework where legitimate aspirations of developing countries are expressed.

Based on the context and terms of the information requested, Cuba seizes this opportunity to submit the following considerations to be taken into account, particularly when drafting the option document that will be considered by the AWG-LCA at its Fifth Session.

Given the progress made on the discussion on long-term cooperative action, our considerations are submitted straightforwardly, so they can contribute more clearly to the negotiating process. At the same time, Cuba notes that none of the considerations exposed below prejudices the positions the Cuban delegation will hold as the process advances forward and the aspects of the agreements to be reached in Copenhagen start to be defined.

**SHARED VISION**

A shared vision must contain a long-term goal, based on the best scientific knowledge available and common but differentiated responsibilities and prevention principles. This goal must imply reductions of Annex 1 countries by 40% in 2020, and more than 80% in 2050, as compared to their 1990 levels.

- The “objectives” of a shared vision must aim at reaching the ultimate goal of the Convention, as contained in its Article 2.
- The shared vision must also take into account, in conformity with the Bali Action Plan, that poverty reduction and sustainable development are the ultimate goal and the main objectives of developing countries.
- To reach long term climate goals, luxury and waste associated to the production and consumption patterns of developed countries must be substantially modified.
- Developed countries must play a strong leading role in the actions aimed at ambitiously cut their emissions, based on their historical responsibility and greater technological and financial capacity.

The shared vision must recognize the need to implement urgent and expeditious actions to deal with the adverse impact of climate change.

- Such expeditious actions imply stepping up of efforts to mitigate climate change, thus building new opportunities for endangered ecosystems and communities. Reaching “tipping points” must be prevented, because they bring about rapid, abrupt and catastrophic climatic impacts.
- For small island developing countries, the negative impact of climate is already being felt, and it has been recognized the urgent social, economic, environmental and survival threats caused by the adverse impact of climate change and the sea level rise on the sustainable development of SIDS, their territorial integrity and subsistence as viable dynamic communities.

- SIDS has limited capacities to respond to the climate change challenges, and they require special efforts and support to access effective mitigation and adaptation opportunities. Their particular circumstances must be recognized in the shared vision.

As “principles” of the shared vision, Cuba considers essential the following:

- The principle of common but differentiated responsibilities must feature as the basis for demanding developed countries the establishment of ambitious emission reduction targets.
- The actions undertaken under the Convention must be urgent, practical and ambitious; and geared at protecting the most vulnerable Parties, while ensuring their subsistence and sustainable development, both in a long term and in the face of abrupt disasters.
- The Parties must use the prevention principle in their efforts to anticipate and minimize the adverse impact of climate change.
- The actions must also reflect the prevention principle at international level, taking into account the responsibilities of Parties to make sure that their actions within their jurisdiction do not harm the environment of other States or areas beyond their national jurisdictions.
- The principle of intergenerational equity must always be kept in mind so that the protection of the global environment takes into account the present and future generations.

## **MITIGATION**

Legally binding mitigation commitments must be undertaken by developed countries, on the basis of their historical responsibility and capabilities.

The mandatory and quantifiable objectives in the area of limitation of emissions by developed country Parties must be comparable to the commitments made under the Kyoto Protocol.

This comparable effort must include:

- Adjusted objectives to reduce emissions with the same base year established by the Kyoto Protocol and other equal timeframes.
- The agreements to reach quantifiable objectives to limit the emissions under the Bali Action Plan must not establish mechanisms that weaken the compliance with objectives and obligations of countries that have made commitments under the Kyoto Protocol.
- The equity of a mitigation regime must take into account as a basis:
  - Historical emissions
  - Emissions per capita
- The use of market mechanisms for mitigation must not compromise the environmental integrity or the ultimate goals of the Convention. The strong intervention of governments to tackle the effects of the international financial crisis, underline the role and responsibility of governments interventions.
- For developing countries mitigation actions must equally take into account development imperatives, the fight against poverty and economic growth, as well as national circumstances.
- It is imperative for these actions to be supported by substantial external contributions in the areas of finances, technology transfer and capacity building. These contributions must be measurable, verifiable and reportable. The mitigation actions of developing countries and these financial and technological contributions constitute an indissoluble package that cannot be assessed separately.

- These voluntary and non-binding actions must be implemented in a bottom up fashion, through steps that reduce emissions based on the emission base line. These base lines are an important component to consider emissions as measurable, verifiable and, therefore, reportable. In that respect, new methodologies must be developed.
- Some viable alternatives for emission actions in developing countries to be considered during the forthcoming negotiating process could:
  - Take into account the emission intensity. This approach respects the right to development, considering that development goals may produce an emission rise, while the energy intensity per GNP unit is reduced.
  - Take into account the modifications of the energy matrix, through an increase in the percentage of renewable energies used.
  - Take into account the sustainable development policies, strategies and programs, since they include or may include several sectoral actions (energy, transportation, construction, agriculture, tourism, among others), where mitigation actions may be identified.
- Some measures to be implemented in national plans and programs could include:
  - Regulations and standards. Relating to the efficiency of equipment, facilities or technologies.
  - Voluntary agreements. Among the government, the private sector and other interested parties.
  - Investment in R&D on energy efficiency and renewable energies.

## **ADAPTATION**

Adaptation to climate change is a complex and multifaceted issue, which must be duly addressed in the negotiating process, considering –without undermining other elements- that:

Adaptation is closely associated to economic development, poverty reduction policies, disaster reduction strategies, ecosystem protection and, therefore, to sustainable development.

As a result of that:

- Adaptation requires to be integrated into the development planning.
- The implementation of national adaptation plans requires substantial funding, which must come –first of all- from developed countries. In that respect, new and additional resources, as well as innovative financial mechanisms and new technologies are required. An adequate flow of funds requires a simplification of institutional arrangements and bureaucratic procedures, as well as the elimination of barriers to access funds in an efficient manner.
- An operational and efficient adaptation fund is required, in which parties to the Convention may exercise control and make decisions.

## **Enhanced action on technology development and transfer to support action on mitigation and adaptation.**

Effective mechanisms and enhanced means for the removal of obstacles to, and provision of financial and other incentives for, scaling up of the development and transfer of technology to developing country Parties in order to promote access to affordable environmentally sound technology;

## **General Principles**

- In addition to setting a comprehensive mechanism able to address all the stages of the technology development cycle as proposed by the G77 and China, that mechanism has to be viewed as a system which also include the know-how, procedures, good and services and equipment, as well as organizational and managerial procedures.
- The mechanism should aim to achieve the accessibility, affordability, appropriateness and adaptability of technologies required by developing countries for enhanced action on mitigation and adaptation. This aim should imply the determination and political will of Annex 1 governments to provide the means for such aim and not to leave the access and transfer of technology exclusively in the hands of the market.
- Be guided by the provisions of the Convention, in particular paragraph 3, 4 and 5 of Article 4.
- Be fitted to address IPR's in relation to the objectives and principles hereby underlined.
- Stimulate Annex 1 and non-Annex 1 Parties to undertake joint cooperation for the development of new technology. Long term partnerships in technology cooperation require continuing and systematic training and capacity-building at all levels over an extended period of time.

## **Institutional arrangement and mechanism to address IPR's issues**

- Support for the establishment of a technology mechanism under the Convention assisted by an Executive Body on Technology.
- The Executive Body on Technology should include among its functions the verification of Annex 1 Parties support for joint technology cooperation programs or projects with developing countries, be responsible for promoting actions leading to technology development, deployment, diffusion and transfer, taking into account IPR's, and devising a suitable IPR's regime for accessing technologies owned by the private sector in developed countries.
- The technology mechanism should also give consideration to the role of patent protection and IPR's along with an examination of their impact on the access to and transfer of technology that may significantly booster the capacity of developing countries to address climate change.
- Examination of existing policies, including subsidies and tax regimes, and regulations to determine whether they encourage or impede the access to, transfer of and introduction of climate change friendly technology.
- Moreover, the mechanism should further explore the concept of assured access for developing countries to climate change friendly technology in its relation to proprietary rights with a view to develop effective responses.
- Formulation of guidelines for policies and programs for the effective transfer of technology that it is in the public domain, as well as for the development of appropriate incentives, fiscal or otherwise, to stimulate the transfer to developing countries of climate change high impact technologies by companies.

**Provision of financial resources. Improved access to, disbursement of, and provision of new and additional resources including positive incentives to developing country Parties and mobilization of public –and private- sector funding and investment.**

- In the view of Cuba, the translation of the Bali Action Plan into concrete agreements requires the establishment of a solid financial mechanism under the Convention and exclusively governed by the COP.
- The financial mechanism should follow the model of the Montreal Protocol's Multilateral Fund to ensure, inter alia, the rapid diffusion and absorption of technologies needed for mitigation and adaptation.
- Among others the financial mechanism should host a technology transfer fund for financing technology transfer to developing countries on grant basis.
- Regarding paragraph 152 and 153 (a) and (b) of the Assembly document FCCC/AWGLCA/2008/16/Rev.1, Cuba endorses the views expressed by the G77 and China, as well as AOSIS.
- In respect of paragraph 153 (c), Cuba considers that resources should be provided by Annex I Parties on the basis of:
  - Historical contribution to climate change
  - GHG emission percapita
  - National capabilities
- Under the financial mechanism an important role should be given to the mobilization of the public-sector funding and investment commensurate with the responsibility of government to lead in the fight against the adverse consequences of climate change.

PAPER NO. 8: ECUADOR  
COMENTARIOS DEL ECUADOR

**GRUPO DE TRABAJO ESPECIAL SOBRE LA COOPERACIÓN EN EL LARGO PLAZO.  
DOCUMENTO DEL PRESIDENTE  
IDEAS Y PROPUESTAS SOBRE EL PARÁGRAFO I DEL PLAN DE ACCIÓN DE BALI**

Quito, Febrero de 2009

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## 1. ANTECEDENTES

El Grupo de Trabajo Especial sobre la Cooperación en el Largo Plazo en el contexto de la Convención (GTECLP) es el responsable del proceso de negociación del Plan de Acción de Bali adoptado en Diciembre de 2009.

En atención a una decisión del GTECLP, su Presidente preparó el documento "Ideas y Propuestas sobre el párrafo I del Plan de Acción de Bali". Al respecto, el Grupo decidió en el mes de diciembre de 2009 solicitar comentarios a dicho documento hasta el 6 de febrero del 2009. El presente documento responde a este requerimiento.

## 2. VISION COMUN

- Comprende todos los elementos del Plan de Acción de Bali
- Considera como prioridad el derecho de los países en desarrollo a lograr su desarrollo sostenible.
- Los países del Anexo I deben demostrar el cumplimiento de sus obligaciones ya asumidas en el contexto de la Convención como del Protocolo de Kyoto, como una señal clara de su compromiso con el futuro régimen climático en negociación.
- Los países en desarrollo, a pesar de no ser responsables históricos de la generación del problema del cambio climático, están siendo afectados negativamente a través de dos vías:
  - Los impactos de las variaciones antropogénicas del sistema climático y,
  - Los impactos por las medidas de respuesta que los países desarrollados están tomando
- La reducción de la vulnerabilidad y la adaptación al Cambio Climático es la prioridad de los países en desarrollo para lo cual se requiere el apoyo de los países del Anexo I en materia de transferencia de tecnología, inversiones y recursos financieros.
- Debe considerar la urgencia de llegar al máximo de las emisiones en los siguientes 10 - 15 años.

## 3. MITIGACION

Sobre los compromisos medibles, verificables y reportables de los países desarrollados:

- Deben responder a los avances de la ciencia, especialmente al Cuarto Reporte del Panel Intergubernamental de Expertos sobre Cambio Climático.
- Los compromisos de reducción de emisiones deben ser un 25-40 % inferior a aquellas contabilizadas al año de 1990.
- Los compromisos a ser adoptados por los países del Anexo I deben ser equivalentes entre si y responder a sus reales posibilidades y circunstancias nacionales.
- Los Compromisos de los Países del Anexo I deben ser sujetos a un Sistema de Cumplimiento a funcionar bajo la responsabilidad de la Conferencia de las Partes.
- Reforzar el compromiso de los países desarrollados para reducir las emisiones de gases del efecto de invernadero conforme los objetivos de la Convención.
- Considerar la Conservación de Humedales y Restauración como opciones/actividades para el secuestro de Carbono. Igualmente tomar en cuenta la absorción y capacidad de acumulación de los bosques en sus locaciones geográficas y considerar el potencial técnico de mitigación en el sector agrícola/forestal.



#### Sobre que medir, reportar y verificar

- La Convención debe definir las metodologías, guías para medir, reportar y verificar la reducción de emisiones, así como del apoyo en materia de recursos, transferencia de tecnología y adaptación.
- Las contribuciones de los Países del Anexo I deben ser sustancialmente superiores a las existentes al momento y estar dirigidas a las prioridades de los países.

#### Sobre las acciones nacionalmente apropiadas de mitigación de los países en desarrollo

- La ejecución de acciones voluntarias para revertir las tendencias de las emisiones en los países en desarrollo será posible, siempre y cuando se cumplan, al menos los siguientes elementos:
  - Cumplimiento real y verificable de los países desarrollados de todos sus compromisos estipulados, tanto en la Convención como en el Protocolo de Kyoto.
  - Apoyo real, medible, predecible y verificable de los países desarrollados en materia de recursos y asistencia financiera, transferencia de tecnología y seguros.
  - Consideración de las acciones y medidas de reducción de emisiones que ya están ejecutando los países en desarrollo sin tener ningún tipo de compromiso.
- Las acciones voluntarias de los países en desarrollo, de naturaleza diferente que las de los países del Anexo I, deben enfocarse a revertir sus tendencias de emisiones en las principales fuentes de emisiones y deben sustentarse en las reales circunstancias nacionales y sus niveles históricos y actuales de emisiones. Estas acciones no pueden ser en ningún caso un freno para su desarrollo sostenible.
- Generar un sistema de información con indicadores para medir los programas y esfuerzos de mitigación de los países con mayores emisiones.

Generar un sistema de información sobre las acciones de mitigación ya efectuadas por los países en vías de desarrollo de manera voluntaria.

#### Sobre los incentivos positivos relacionados con REDD y el rol de la conservación, el manejo sustentable de los bosques y el incremento del contenido de carbono en bosques

*Acerca del contexto y los objetivos de los mecanismos políticos y de incentivos:*

- Considerar que un esquema REDD debe asegurar la participación activa de varios sectores tanto del gobierno como de la sociedad civil, en consideración de que el manejo de los bosques, al ser un recurso natural renovable, requiere de un proceso de planificación concertado entre gobierno y sociedad civil.
- La implementación de una política de incentivos y de un esquema REDD, debe incorporar mecanismos de consulta previa por parte de indígenas y otras comunidades locales, para asegurar un asocio efectivo entre gobierno y sociedad civil, en los esfuerzos por reducir la deforestación. De la misma manera, a través del mismo mecanismo se debe transparentar una distribución equitativa de los recursos provenientes de REDD.
- Un esquema REDD debe desarrollarse en el contexto de la planificación territorial de un país. Como parte de esa planificación se debe incorporar el manejo sustentable de los recursos renovables (como los bosques), no obstante, hay otros elementos relevantes para REDD que también deben formar parte de ese proceso de planificación territorial, como definir áreas de conservación, de producción agrícola, etc., con lo que se puede reforzar el criterio de permanencia de las actividades REDD.
- Existen países en desarrollo que ya están aplicando políticas de incentivos a nivel doméstico con el objetivo de reducir la deforestación, y con el uso de recursos propios. Los esfuerzos realizados

antes del año 2012 en el contexto de REDD (debidamente monitoreadas, reportadas y verificadas) deben ser reconocidas conforme el mecanismo que se establezca para el efecto bajo la UNFCCC.

*A cerca de la naturaleza de los mecanismos políticos:*

- La tendencia para implementar REDD debería ser siempre hacia la escala nacional. Si existen experiencias sub-nacionales, estas deberían ser parte de un proceso progresivo que en el futuro alcanza cobertura nacional. Lo fundamental es incluir las experiencias subnacionales en un sistema de monitoreo y contabilidad a nivel nacional.

*Acerca de los mecanismos políticos concretos:*

- El uso de las guías provistas por el IPCC y sugeridas por OSACT (en su sesión 29) para demostrar la reducción de emisiones del sector forestal debería estar sujeta a una efectiva, verificable y eficiente transferencia de tecnología y recursos económicos hacia los países en desarrollo, para que estos puedan cumplir con los lineamientos provistos en dichas guías.
- La implementación de REDD debe ser concebido como un objetivo global de reducción de emisiones. Por tanto, los países desarrollados deben comprometer recursos económicos y tecnológicos para el uso de los países en desarrollo, y la reducción de emisiones relacionadas con REDD debe ser adicional a las obligaciones de reducción de emisiones de los países del Anexo I. Es decir, en ningún caso la reducción de emisiones relacionadas con REDD deberían ser usadas para compensar el exceso de emisiones de los países del Anexo I, quienes deberían cumplir con los objetivos de reducción establecidos en la convención, independientemente de las reducciones atribuidas a REDD.
- Definir un esquema de fases para la implementación progresiva de REDD. En la primera fase se puede considerar el establecimiento de un fondo que sirve para financiar la ejecución de pasos preliminares para REDD. La segunda fase puede ser un mecanismo mixto con opciones de mercado y no mercado, en donde el objetivo principal sea la expansión de la intervención REDD a nivel nacional. Finalmente, para la tercera fase todo el mecanismo metodológico debe estar desarrollado y la capacidad institucional instalada en cada país; mientras tanto debe considerarse que el financiamiento puede hacerse a través de opciones de mercado (voluntario o regulado) o de no mercado. Los dos mecanismos no deberían ser excluyentes en ninguna de las fases anteriores.
- La incorporación de degradación en el esquema REDD debe ser voluntaria para cada país, en consideración de las dificultades metodológicas existente para evaluar la degradación y en vista de una falta de consenso a cerca de la definición de degradación. La degradación no debería ser vista como la pérdida del contenido de carbono en los bosques, sino más bien como un proceso de pérdida del contenido de carbono que culmina con la transformación de la cobertura vegetal de *bosque a no bosque* y que se diferencia de la *deforestación* porque la degradación es un proceso más lento en relación a la deforestación.

*Acerca de la provisión de incentivos:*

- Integrar un criterio de beneficio múltiple a través del pago por servicios ambientales podría ser conflictivo para demostrar adicionalidad. Además, se debe tomar en cuenta que el pago por servicios ambientales es un mecanismo que si bien es fundamentado desde el punto de vista técnico, en ciertos ámbitos ha sido mal interpretado, razón por la cual es mejor no involucrarlo o integrarlo con el mecanismo REDD. Debería ser definido en base a las circunstancias de cada país.

*Acerca de qué debería ser medido, reportado y verificado:*

- Para la definición de los escenarios de referencia de emisiones por deforestación se debería aceptar un mecanismo mediante el cual se mida tres puntos en el tiempo. Debería haber cierta flexibilidad en la definición de esos puntos históricos, dado que se ha sugerido basar esa medición en el uso de sensores remotos, y dada la escasa disponibilidad de información de ese tipo en la mayoría de

países en desarrollo. Esa flexibilidad debería aceptar el uso de diferentes imágenes de satélite a pesar de que no coincidan a una misma fecha (quizá dentro del mismo año, en lo posible)

*Acerca de cómo medir, monitorear y verificar:*

- El uso de un sistema transparente y público es de fundamental importancia. Uno de los principios fundamentales de la aplicación de un mecanismo REDD es la transparencia con la que se debe manejar todo el proceso. Eso incluye todas las fases de ejecución, desde el diseño y la ejecución, hasta la rendición de cuentas a terceros, la secretaría de la convención (y las partes) y a la sociedad civil.
- El uso de las guías metodológicas desarrolladas por el IPCC debería ser obligatoria para el desarrollo e implementación de mecanismos REDD solamente en los casos en donde se haya invertido recursos financieros, tecnológicos, institucionales, etc. para que los países en desarrollo estén en capacidad de hacerlo, de acuerdo a un análisis caso por caso.
- Respecto del uso de sensores remotos es necesario que como parte de las acciones previas a la implementación de actividades REDD, se defina los mecanismos que aseguren la disponibilidad de ese tipo de información, a través de una adecuada transferencia de recursos económicos y tecnológicos desde los países desarrollados hacia los países en desarrollo. REDD requiere de un flujo de información satelital confiable y constante en el tiempo a mediano y largo plazo.

*Acerca de la construcción de capacidades, alistamiento y demostración:*

- La forma en la que los países en desarrollo reciben el apoyo económico, tecnológico y de construcción de capacidades, debe basarse en un análisis de las circunstancias actuales de cada país, tomando como referencia el nivel deseado al que se quiere llegar, por ejemplo, estar en capacidad de aplicar las metodologías propuestas por el IPCC.
- Respecto de la coordinación de las actividades con agencias relevantes y bancos multilaterales, debe notarse que el trabajo con organismos fuera de la convención no debería significar el requerimiento de condiciones específicas más allá de las estrictamente relacionadas con cambio climático o los objetivos de la convención. Esto incluye además, mejorar la cooperación y coordinación con otros organismos dentro del sistema de las Naciones Unidas y potenciar las iniciativas en marcha, tales como UN-REDD, así como apoyar a las iniciativas en marcha desarrolladas por algunos países con sus propios recursos, y sin que para lo anterior sea un prerrequisito ser parte de las iniciativas de agencias multilaterales.

*Acerca de qué debería ser apoyado en las áreas de desarrollo de capacidades, alistamiento y demostración:*

- El fortalecimiento de las capacidades locales técnicas e institucionales debe estar basado en un análisis de cada caso, en donde se compara el estado actual de cada país, con el estado ideal, siendo el estado ideal aquel en el que los países en desarrollo están en capacidad de aplicar las metodologías sugeridas por el IPCC.
- Respecto de una *cooperación sur-sur* se debería viabilizar el mecanismo mediante el cual existe una cooperación efectiva entre países en desarrollo. Quizá se puede usar la misma plataforma de la convención para viabilizar la cooperación sur-sur

*Consideraciones adicionales:*

- Considerar que la principal fuente de emisiones en el mundo en desarrollo es el uso del suelo, cambio en el uso del suelo y la silvicultura
- Los incentivos pueden enfocarse fundamentalmente a fortalecer las acciones que los países ya están desarrollando y en aquellas que no pueden ser ejecutadas por falta de recursos.
- La conservación de los bosques tropicales y la reversión de las altas de deforestación requieren de un apoyo importante y directo.

#### Sobre los enfoques de cooperación sectoriales

- Establecer canales de cooperación específicos y promover los beneficios de este tipo de acciones en los diferentes sectores
- Ratificar la importancia de dar cumplimiento a lo señalado en el Art. 4, Parágrafo 1 de la Convención, respecto de la transferencia de tecnología, resaltando las acciones de cooperación sectorial.
- Desarrollar estrategias, guías, programas y regulaciones con estándares técnicos en sectores específicos para reducción de emisiones que viabilicen la transferencia de tecnología.

#### Sobre los varios enfoques incluyendo oportunidades para el uso de los mercados.

- Realizar un análisis de mercado para movilizar el capital y tecnología y dar cumplimiento a los objetivos de la Convención: aumento y transferencia de tecnología e incentivos para acciones de mitigación.
- Analizar la incorporación, promoción y mejoramiento de mecanismos de flexibilidad, tomando en consideración las experiencias de aquellos definidos por el Protocolo de Kyoto.

#### Sobre los impactos económicos y sociales de las medidas de respuesta:

- Los países en desarrollo cuya economía depende fundamentalmente de la producción y exportación de combustibles fósiles están sufriendo impactos directos e indirectos por las medidas de respuesta del mundo desarrollado. Estos países requieren de apoyo directo para enfrentar los impactos sociales y económicos actuales y futuros, por ejemplo en materia de diversificación económica.

## **4. ADAPTACION**

#### Sobre el contexto de la planificación e implementación de la adaptación

- El diseño e implementación de los Planes Nacionales de Adaptación de los países en desarrollo deben ser apoyados considerando las prioridades establecidas en el Artículo 4.8 de la Convención.
- Considerar dentro del proceso de adaptación los cuatro aspectos fundamentales igualmente importantes como son: proyectos concretos de adaptación, tecnologías de adaptación, seguros, y medidas de adaptación insertas dentro de las políticas y planes nacionales”.
- Los países deben incorporar la adaptación al cambio climático dentro de sus políticas y planes nacionales en el contexto de un desarrollo sostenible pero con el apoyo urgente de organismos multilaterales, ONG's ,y la CMNUCC, para los países en desarrollo sobre todo los considerados dentro del Artículo 4.8 del Texto de la Convención Marco de Naciones Unidas sobre Cambio Climático

#### Sobre la naturaleza de los Planes de Acción

- Fortalecimiento de las capacidades de los países para la realización de sus planes nacionales, conforme a las realidades propias de cada país, especialmente los países Andinos, por el retroceso acelerado de glaciares, con el consecuente impacto en las reservas naturales de agua
- Los países deberán contar con el apoyo de los países desarrollados en el elaboración de metodologías, guías y documentos relacionados con los sectores prioritarios de cada país sobre todo de los sectores determinados como los más importantes, que permitan avanzar no sólo en los NAPA's. , sino en el proceso completo de la adaptación, así como disponer de un soporte que permita cuantificar los costos que se derivan de los impactos del Cambio Climático

### Sobre la integración de la adaptación en las políticas nacionales

- Los Planes Nacionales deben ser apoyados para su inclusión como elemento relevante en los principales planes nacionales de desarrollo, seguridad alimentaria, gestión de los recursos hídricos, gestión de riesgos, ordenamiento territorial, etc.
- Fortalecer a los procesos nacionales para identificar los sectores más vulnerables y a los que requieren de apoyo.

### Sobre la Vulnerabilidad y la Adaptación

Entre los elementos a ser considerados para asegurar la efectividad del proceso de evaluación deben incluirse:

- La creación o fortalecimiento de los Sistemas Nacionales de Observación del Sistema Climático como un todo, siguiendo los lineamientos del Sistema Mundial de Observación del Clima (GICOS).
- Sistemas de Información Geográfica de la climatología nacional de los países que puedan servir para el contraste de los escenarios de cambio climático generados por modelos regionales.
- Los Sistemas de Alerta Temprana, como herramientas prioritarias para enfrentar las amenazas climáticas actuales, especialmente las relacionadas con eventos extremos.

### Sobre el contexto del incremento del apoyo financiero

- El apoyo financiero deberá encaminarse de acuerdo a las prioridades establecidas por los países, fortaleciendo las capacidades nacionales y fomentando los procesos nacionales de vulnerabilidad y adaptación. Este apoyo deberá entregarse de forma directa a cada Parte, conforme lo establecido en el Plan de Acción de Bali

### Sobre las redes y Centros Regionales

- Los Centros y Redes Regionales que sean establecidos o incluidos bajo el Plan de Acción de Bali deben responder a las necesidades establecidas por los países, manteniendo el criterio que el apoyo principal y directo a ser acordado, sea hacia los países.
- La Comunidad Andina de Naciones, como una de las más vulnerables requiere de un Centro de Adaptación que apoye directamente a los países de la región.

### Sobre los arreglos institucionales:

- La estructura institucional que sea diseñada para la adaptación deberá ser guiada por la Conferencia de las Partes y enfocada a apoyar a todos los países en desarrollo considerando las prioridades ya establecidas en la Convención.
- A nivel de cada país, será importante establecer una estructura institucional para la adaptación, de tal manera que los esfuerzos e iniciativas que existen y las que se implementarán sean coordinadas adecuadamente con el fin de evitar duplicar esfuerzos e invertir recursos innecesarios.

### Sobre los Gestión de Riesgos y las estrategias de reducción de riesgos, incluyendo la transferencia del riesgo como los seguros

- La Adaptación al cambio climático puede aprovechar de la experiencia y enfoques utilizados por la Gestión de Riesgos tomando en consideración el Marco de Acción de Hyogo.
- Las estrategias y planes nacionales de gestión de riesgos climáticos y de adaptación al cambio climático deben generar iniciativas para maximizar los beneficios de acciones conjuntas.
- El apoyo de parte de los países desarrollados será fundamental para el tema de seguros y transferencia del riesgo, en países fuertemente afectados por los impactos del cambio climático, sobre todo en los sectores estratégicos y claves para sus economías”.

- Establecer actividades de coordinación y sinergias entre la Estrategia Internacional de Reducción de Desastres y la Convención Marco de Naciones Unidas sobre Cambio Climático

## **5. DESARROLLO Y TRANSFERENCIA DE TECNOLOGIA**

- Creación de un Fondo Multilateral para el desarrollo y transferencia de tecnología.
- El desarrollo y la transferencia de tecnología a través de la cooperación debe ser una realidad, por lo tanto medible, verificable y reportable.
- La propiedad de la tecnología y los acuerdos internacionales sobre comercio y propiedad intelectual deben ser actualizados para el tema de Cambio Climático.
- Necesidad de mecanismos e incentivos para viabilizar la transferencia de tecnología, la cooperación, el desarrollo de las nuevas tecnologías amigables con el clima, tanto para la mitigación cuanto para la adaptación, con involucramiento del sector privado.
- Fortalecer los nexos y mecanismos de cooperación norte-sur y sur-sur.

## **6. RECURSOS FINANCIEROS E INVERSIONES**

### Sobre la provisión de nuevos y adicionales recursos

- Los recursos realmente deben ser previsible nuevos y adicionales, a los ya estipulados en la Convención, el Protocolo de Kyoto y la Ayuda para el Desarrollo (ODA). Estos recursos como parte de los compromisos de los países desarrollados deben ser medibles, verificables y reportables y enfocados fundamentalmente en la adaptación.
- Aplicación de una tasa a los Proyectos de Implementación Conjunta y al Comercio de Emisiones para financiar la adaptación de los países en desarrollo.
- Los compromisos de provisión de recursos de los países desarrollados deben sustentarse tanto en sus emisiones históricas como en su capacidad económica.

### Sobre los incentivos para la mitigación

- Con el fin de aportar a los esfuerzos globales para la reducción de emisiones, es importante considerar opciones innovadoras para los países en desarrollo que no tienen ningún tipo de compromiso, como por ejemplo: mantener el petróleo bajo tierra (sin explotar) y generar una compensación económica en magnitud similar a la que el país recibiría en caso de explotación, a través de mecanismos por definirse que aprovechen las experiencias pasadas y actuales.

### Sobre las directrices para la entrega de y acceso los recursos financieros:

- Todos los países en desarrollo son elegibles para recibir recursos financieros tomando en consideración las prioridades ya establecidas en el marco de la Convención, tanto para reducir impactos por el cambio climático como por las medidas de respuesta.
- El acceso a los recursos financieros debe ser lo más directo posible hacia los países, evitando las intermediaciones de agencias de implementación y/u organizaciones mundiales y regionales.

### Sobre los arreglos institucionales para la provisión de recursos financieros e inversiones

- La estructura global debe ser manejada por y para los países, tomando en consideración las lecciones aprendidas de las estructuras actuales y creando un Fondo Multilateral que agrupe todos los fondos para apoyar a todos los países en desarrollo

PAPER NO. 9: GUATEMALA ON BEHALF OF BELIZE, COSTA RICA, DOMINICAN REPUBLIC,  
EL SALVADOR, GUATEMALA, HONDURAS, NICARAGUA AND PANAMA

[REVISED VERSION]

**Submission of Compensation-Mechanism based on Adaptation  
An approach for vulnerability reduction**

A Submission to the AWG-LCA with respect to the Shared Vision and Enhanced Action on Adaptation by the Parties of Central America: *Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Belize, Panama and Dominican Republic.*

The listed Parties welcome the opportunity given to submit views and do so through the following statement on an enhanced action on adaptation (paragraph 1 (c ) of the Bali Action Plan). We are in accord with *shared but differentiated responsibilities* since we recognize that the inputs of the global emissions of the Central American region are few compared to the impacts and effects that we are suffering, reason why it is required that all countries with higher levels of emissions, support with more seriousness, the creation of *compensation mechanisms for adaptation* in the face of climate change that may allow vulnerability reduction in developing countries due to the extreme events caused by climatic variability.

Climate Change has turned into one of the main threats for the Central American Region. Only for the last eight years, 9.2 million people have been affected by climate related disasters. Because our region is an isthmus, with high density population and socio-environmental degradation, our territorial vulnerability has increased poverty, especially in women and children of rural and urban marginal areas.

On average, 50% of Central American people are in poverty. Central America shares the same geographic, ocean environment and climate related risks with the Caribbean islands. In spite of its vulnerability, it is lacking the appropriate treatment, recognition and support given to other vulnerable Parties, due to climate related risks. For some of the reasons exposed, Central America requires to be recognized socially and environmentally, as a “highly vulnerable region” in the framework of the Convention.

Already the region is engaged with strong commitment to reduce the risks, promoting community resilience and invigorating an effective culture of prevention. However, in order to rise to climate change challenges, financing, capacity building, transfer and development of technology, use and respect of positive traditional knowledge, and ecosystem based adaptation, we need to intensify large scale commitments from all Parties.

Regarding the Bali route, we wish to confirm our desire to participate in a process that may allow a *Shared Vision* of the long-term cooperation that may guarantee and recognize the right to development, global responsibility and ecological debt, as well as environmental justice.

Objectives of the region in the negotiation of the topic of adaptation:

*Request* stable, predictable, and timely financial resources, additional to the ODA in order to implement national plans on adaptation with new and additional actions.

Recognize the total real costs of priority measures on adaptation.

Consider technological transference according to the needs of forced adaptation of each country to integrate women (practice of gender), indigenous communities, food-security, human health, agriculture, marine-coast zone, hydro resources, forest ecosystems, etc.).

-Find appropriate and efficient mechanisms for the delivery of financial resources to developing countries.

-Identify and request technical support to implement priority and urgent measures of adaptation in developing countries.

-Make the Working Group of Adaptation operative under the Convention with the objective to support the implementation of the National Action Plan.

The Copenhagen agreement must address these issues in an effective manner, because climate-related disasters have been undoubtedly increasing in magnitude and frequency. Our people must not wait any further.



PAPER NO. 10A: INDIA

**Supplemental Submission by India: Why Financial Contributions to the Financial Mechanism of the UNFCCC Cannot be Under the Paradigm of “Aid”**

1. **Background:** The UNFCCC requires the establishment of a Financial Mechanism under Art 11. An Adaptation Fund has already been set up by with a unique governance structure. The Bali Action Plan (BAP) (Decision 1/CP 13) identifies “Finance:” as one of the 4 “Building Blocks” of the future climate change arrangements.

It is clear that the scale of finances required are extremely large, and going by available, partial and broad brush estimates, may range, in the case of GHG Mitigation, to several hundred billion US \$ per year and, in the case of Adaptation, at least several tens of billions of US\$ per year. The resources currently provided (GEF contributions, CDM levy for the Adaptation Fund) are currently in the range of a few hundreds of millions of US\$ only per year. It is clear that new and additional resources of a very high order must be found to support the actions of developing countries under para 1(b)(ii) of the BAP.

2. **Entitlement not Aid:** In the current discourse on financing resources to be provided towards implementation of Article 1(b)(ii) of the BAP, there is a tendency to equate such resources to foreign “aid” or Overseas Development Assistance. However, the new Financial Architecture for Climate Change derives from the UNFCCC and is fundamentally different from donor-driver aid flows, which rarely take into account the priorities of the recipient countries. There is also an inbuilt bias in favour of using such funds to source supplies and technology from the donor country or countries, even though more appropriate and cost effective solutions may be available elsewhere, including from within the recipient country itself. Therefore, it is necessary to clearly distinguish between fund flows that are based on the conventional aid paradigm and establish a new, multilateral financial architecture for climate change.

3. **Towards a New Financial Architecture for Climate Change:** Specifically, arrangements under BAP need to embody the following:

- **Legal obligation, no Repayable “Loans”:** First, unlike in the case of “development finance”, there is clear legal recognition in the UNFCCC of the “*common but differentiated responsibilities and respective capabilities*” of Parties for addressing climate change. Accordingly, the provision of financial resources for climate change must relate explicitly to this legal principle in any future climate change arrangements, and cannot be subject to decisions of developed country Governments and legislatures. The providers of finance cannot be discretionary “donors”, but must be legally obligated “assesseees”. This would also rule out repayable financial contributions; legal obligations premised upon responsibility are not repayable.
- **Balanced Governance Structure:** Second, the flow of resources to developing countries must be in line with the basis of provision of funding, i.e. under BAP: [Para 1 (e)] in case of mitigation, in respect of nationally appropriate mitigation actions under Para 1(b)(ii) which requires that these must be supported and enabled by the provision of “*technology, finance, and capacity building*”, and Para 1(c) in respect of adaptation. Quite obviously, there is no scope for *unilateral* determination by the assesseees (developed country Parties) of which developing country Parties may be funded, or the extent (quantum) of funding required, or the funding modality (project, program, budgetary contribution). A multilateral governance structure that is sufficiently responsive to the perspectives of the developing country Parties undertaking the climate change actions is essential.
- **Procurement:** Third, a more balanced governance structure would enable the Financial Mechanism to work out and implement procurement norms that are competitive in terms of technical capability *and cost*, unlike the present situation where the technical evaluation criteria may be biased in favour of developed country suppliers.
- **No Conditionalities:** Fourth, the climate change funds are meant for addressing climate change actions in relation to BAP, and not to any other objectives. Accordingly, any covenants other than those strictly consistent with the BAP, i.e. MRV requirements as set forth in para 1(b)(ii) of the BAP, would be impermissible.

PAPER NO. 10B: INDIA

**GOVERNMENT OF INDIA SUBMISSION TO UNFCCC ON  
NATIONALLY APPROPRIATE MITIGATION ACTIONS (NAMAS)  
BY DEVELOPING COUNTRIES**

1. The Bali Action Plan launched “a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action”.
2. The Bali Action Plan envisages, under clause 1(b)(ii), enhanced national/international action on mitigation of climate change, including, *inter alia*, consideration of Nationally Appropriate Mitigation Actions by developing country parties in the context of sustainable development, supported and enabled by technology, financing and capacity building, in a measurable, reportable and verifiable manner.
3. The NAMAs envisaged in the BAP do not include national actions by developing countries with their own resources and without external support. Para 1(b)(ii) of the BAP clearly refers only to NAMAs “supported and enabled by technology, financing and capacity building”. NAMAs envisaged in the BAP are, therefore, voluntary actions proposed by developing countries, that require to be supported and enabled by technology transfer, capacity building and financial transfers by developed countries.
4. It is recalled that, under Article 12.4 of the Convention, “Developing country Parties may, on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits”.
5. Discussions were held in Poznan on a possible international registry for such NAMAs. The proposed International Registry should simply be a compilation of NAMAs proposed voluntarily by developing countries, along with an estimate of their mitigation benefits and the estimated incremental costs & technology requirements, submitted in accordance with Art.12.4 of UNFCCC. Implementation of the proposed actions will be contingent upon receipt of the "enabling" finance and technology requirements in accordance with Art.4.3 of UNFCCC which requires developed country parties to cover the "agreed full incremental costs" of measures implemented by developing countries. The proposed registry must be set up under the UNFCCC and hence, the financial support for these NAMAs will be provided by the financial mechanism set up by UNFCCC.

PAPER NO. 11: JAPAN

**For preparation of the Chair's document for the AWG-LCA 5**

In order to resolve the issue of climate change, it is indispensable for every country to take actions according to its responsibility and capability. A global effort for establishing a low-carbon society should be mobilized in the framework beyond 2012. Our preferable option is to adopt a new protocol, ensuring fairness and effectiveness. Another option would be to amend the Kyoto protocol, provided that it can cover all the necessary elements.

Japan recognizes its important role in establishing the framework beyond 2012 and will actively contribute to the negotiations in 2009 with all other Parties for the fulfillment of the ultimate objective of the Convention. Japan is now preparing to announce its mid-term target by June 2009, while reducing emissions toward realizing a long-term goal of 60-80% reduction from its current level by 2050.

In this regard, Japan hereby submits following elements for the agreed outcome to be adopted by COP15 as inputs for the AWG-LCA Chair's document for consideration at the 5th session, in accordance with the work programme adopted at the Poznan session. This is an additional submission to the proposals that Japan has submitted so far, including the one submitted in September 2008.

**1. Shared vision**

Parties should adopt a long-term goal of achieving at least 50% reduction of global emissions of greenhouse gases (GHGs) by 2050 in the UNFCCC negotiations, with a reference to scientific knowledge of IPCC. Toward realizing this goal, the peaking-out of the global GHGs emissions in the next 10 to 20 years should be pursued, and all Parties should share the vision on how to pave the way to reduce global emissions by 2050, including measures to realize a low-carbon society and promotion of development of innovative technologies.

This will require all Parties to take effective mitigation actions under an enlightened sense of solidarity, while developed country Parties will need to lead the global efforts for emission reductions by fulfilling the significant reductions. At the same time, it is necessary to share the understanding that developing country Parties, especially major developing country Parties that increase their emissions rapidly, will be required to fulfill international obligations to take mitigation actions, in accordance with their common but differentiated responsibilities and respective capabilities.

**2. Mitigation**

**(1) Fair and comparable commitments by developed country Parties**

Developed country Parties, including (i) OECD member countries, (ii) countries that are not OECD members but whose economic development stages are equivalent to those of the OECD members, and (iii) countries which voluntarily wish to be treated as developed countries, should ensure that their GHG emissions from 2013 to 20XX do not exceed their respective assigned amount.

[Way of indicating the commitments by developed country Parties]

Party	Quantified emission limitation and reduction commitment (Gg-CO <sub>2</sub> e)	reduction rates from 1990 (%)	reduction rates from 2000 (%)	reduction rates from 2005 (%)	reduction rates from 2007 (%)
A	xxx	xxx	xxx	xxx	xxx
B	xxx	xxx	xxx	xxx	xxx
...	...	...	...	...	...

\* Reduction rates from the base years mentioned above are illustrative and non-exhaustive.

Each developed country Party should achieve the above-mentioned commitment in principle through domestic measures. However, the use of flexibility mechanisms should be allowed as a supplementary measure. Also, LULUCF should be included as part of the national commitment in a proper way, ensuring the continuity and consistency with the rules under the first commitment period.

A commitment of each developed country Party should be set in a manner which ensures comparability for each country, based on analysis on mitigation potentials with indicators such as sectoral energy efficiency and GHG intensity, with due consideration to the marginal abatement costs and total abatement costs as percentage of GDP. In considering commitments which ensure comparability, adequacy should be evaluated with regard to domestic mitigation efforts by developed country Parties separately from mitigation by utilizing flexibility mechanisms.

In addition, each developed country Party should incorporate complementary sectoral information including sectoral indicators in its annual inventory.

**(2) Promotion of mitigation actions by developing country Parties**

In accordance with the principle of “common but differentiated responsibilities and respective capabilities”, developing country Parties should take mitigation actions according to their common but differentiated responsibilities and respective capabilities. Each developing country Party should develop its voluntary national action plan including policies and measures for mitigation.

In addition, major developing country Parties, which are expected to take further mitigation actions based on indicators such as their economic development stages, response capabilities, and shares of GHG emissions in the world (Please see Japan’s submission in FCCC/AWGLCA/2008/MISC.5), and other developing country Parties which voluntarily wish to take further mitigation actions, should ensure that their “economy-wide GHG emissions or energy consumption per GDP” and “GHG emissions or energy consumption per unit in major sectors” from 2013 to 20XX do not exceed their respective assigned amount, with a view to limiting substantially their GHG emission growth. Each major developing country Party should also provide a prospect of total volume of its emissions as a reference, based on its economic growth forecast.

[Way of indicating actions by developing country Parties which are expected to take further mitigation actions]

Economy-wide GHG emissions or energy consumption per GDP

Party	Economy-wide GHG emissions or energy consumption per GDP (tonnes-CO2e/US\$) or (millions tons of oil equivalent/US\$)
A	xxx
B	xxx
...	...

GHG emissions per unit in major sectors and other indicators

Party	Iron and Steel (kg-CO <sub>2</sub> e/ton-crude steel)  * distinguished by major steel-making methods	Cement (kg-CO <sub>2</sub> e/ton-cement or MJ/t-clinker)	Aluminum (kg-CO <sub>2</sub> e/ton-primary aluminum)	Power generation (Thermal efficiency of Coal fired powered plant (% or kg-CO <sub>2</sub> /kwh) / Share of total introduction volume of non-carbon energy (% or kw)	Road transport (appropriate indicator)	...
A	xxx	xxx	xxx	xxx	xxx	xxx
B	xxx	xxx	xxx	xxx	xxx	xxx
...	...	...	...	...	...	...

\* The sectors and the indicators mentioned above are illustrative and non-exhaustive. The main sectors will need to be specified in the end.

### (3) Review of actions by Parties with the changes of circumstances

Actions by Parties should be reviewed with the changes of circumstances such as their economic development stages. If it becomes necessary as a result of such review, the higher level of commitments or actions for mitigation should be applied to the Parties concerned based on COP decisions.

Criteria for this review should be determined upon a COP decision based on economic development stages, response capabilities and shares of GHG emissions in the world. It is required to properly reflect responsibilities and capabilities of Parties. This doesn't prevent Parties from making further commitments or taking further actions for mitigation voluntarily.

### (4) Ensuring measurability, reportability and verifiability

Progress of the implementation of commitments or actions by Parties should be appropriately verified, taking into consideration force majeure conditions such as natural disasters. Measurability, reportability and verifiability of commitments by developed country Parties should be ensured through reporting and reviewing as provided in the current Kyoto Protocol. Developing country Parties should submit their voluntary national action plans, including policies and measures for mitigation, to the COP. These voluntary national action plans should be reviewed periodically. In addition, major developing country Parties mentioned in (2) should also establish its national measurement system under which relevant data and information are to be collected and submitted to the COP. Experts should verify these data and information.

Mitigation policies and measures in national action plans of developing country Parties should be quantified to the extent possible, which enables appropriate supports to be provided, depending on emission reduction effects.

## **3. Adaptation**

In order to enhance the measures for adaptation, a comprehensive framework for adaptation should be established. This framework will need to include, inter alia, following elements:

- (a) Identification of most vulnerable countries to climate change such as Least Developed Countries (LDCs) and small islands developing countries and expansion of support for these countries through improving financial mechanisms (e.g. updating the NAPAs of LDCs,

expansion of countries to be supported in developing NAPAs, expediting the implementation of NAPAs projects)

- (b) Establishing the knowledge network for adaptation, and strengthening the support for capacity building for vulnerability and impact assessment as well as planning and implementation of adaptation measures
- (c) Ensuring the continuity and consistency with the existing frameworks regarding adaptation under the UNFCCC
- (d) Cooperating with current and future approaches which are made in other international frameworks outside the UNFCCC (including the relevant UN institutions and international financial institutions for development), as well as by bilateral support (especially national development strategies and international support for development)
- (e) Improving the accumulation and sharing of information regarding support for adaptation measures (e.g. Donors report regularly to the UNFCCC the information for adaptation measures, which is to be broadly provided for the policy-makers through the UNFCCC.)

#### **4. Technology**

##### **(1) Establishment of an advisory group for sectoral technology cooperation**

An advisory group for sectoral technology cooperation should be established in order to support mitigation actions taken by developing country Parties, by removing the barriers and promoting substantially technology transfer and diffusion. With a view to supporting the mitigation actions taken by developing country Parties, this advisory group aims to identify necessary technologies which are currently available and will be available in the future, to analyze appropriate ways for promoting transfer of existing technologies, to analyze the emission reduction potentials. The result of the examination by this advisory group will be utilized to assist technology transfer under the financial mechanism. It also gives advice for promoting technology transfer and diffusion in each sector, and makes a periodic report to the COP on its activities.

##### **(2) Proper protection of intellectual property rights (IPRs)**

IPRs are fundamental tools to recoup research and development (R&D) investments and to promote further technology transfer. In this regard, it is necessary to improve the business environment including proper protection of IPRs, with a view to promoting sustainable development of technologies by the private sector.

##### **(3) International cooperation for development of innovative technologies**

In order to realize substantial emission reductions, development of innovative technologies should be promoted through strengthening international cooperation including sharing roadmaps for technology development.

The COP should ask relevant international organizations such as IEA to annually review progress on following points and to give advices on items such as areas where international cooperation should be strengthened:

- (a) Government investment amounts for R&D of technologies which contribute to emission reductions
- (b) Status of establishing an international roadmap for technologies development
- (c) Progress of international cooperation for innovative technology development

## **5. Finance**

It is expected that there will be additional financial needs for developing country Parties to take mitigation and adaptation actions in the framework beyond 2012. It is necessary to consider how to meet these new financial needs, bearing in mind cost-effectiveness and linkage with mitigation actions taken by developing country Parties.

- (a) A specific consideration should be given to a new mechanism from a broad perspective, including other Parties' proposals.
- (b) Support for developing country Parties should be implemented in an appropriate manner which encourages business-based flow of private investment.
- (c) New financial contributions of each country should be assessed in a comprehensive manner, taking into account various factors (contributions to funds under the UNFCCC, contributions to other multilateral funds including Climate Investment Funds under the World Bank, ODA contribution, technology assistance, R&D investment, investment through market, etc.).

## **6. Compliance**

Procedures and mechanisms to address cases of non-compliance within the framework beyond 2012 should be determined by the principle that they should be designed to facilitate compliance in the future.

## **7. Entry into Force**

Appropriate requirement for entry into force of the new framework should be considered, with a view to realizing an effective framework where all of the major economies should participate.

PAPER NO. 12: LEBANON

**Submission of Views on: “The fulfillment of the Bali Action Plan and the components of the agreed outcome to be adopted by the Conference of Parties at its fifteenth session (AWG-LCA)”**

**February 4, 2009**

At its fourth session, the AWG-LCA invited Parties to submit to the UNFCCC Secretariat, by the 6<sup>th</sup> of February 2009, their views on the fulfillment of the Bali Action Plan and the components of the agreed outcome to be adopted by the Conference of Parties at its fifteenth session. (FCCC/AWGLCA/2008/L.10 paragraph 2(a) Work Programme for 2009 – Draft conclusions proposed by the Chair; and FCCC/AWGLCA/2008/8 paragraph 25 Report of the AWG-LCA on its second session, held in Bonn from 2 to 12 June 2008)

The following paragraphs constitute the view of the Republic of Lebanon.

**I. Shared Vision**

1. The shared vision must be for a transformation of the global economy into one that is low carbon and sustainable, based on **the principle of common but differentiated responsibility and respective capabilities**. The level of ambition must be based on the IPCC’s AR4 and more recent scientific data.
2. The new agreement should **be comprehensive, precautionary, equitable and fair**. It must define the means of implementation and the yardsticks by which progress is measured, based on up-to-date scientific evidence and analysis.
3. The shared vision must express a vision for each of the building blocks of the Bali Action Plan, including a long-term science-based goal based on the principle of common but differentiated responsibility and respective capabilities.
4. That the ultimate purpose of the convention should be “**safeguarding the survival of all countries and peoples**” and could be quantified with a long-term goal of keeping warming below 2 degrees Celsius.
5. The global effort to mitigate climate change should be shared fairly across nations, using objective criteria based on historic and present responsibilities and capabilities in accordance with the principle of shared but differentiated responsibilities. This means that the main bulk of emission reduction should be conducted by developed countries both domestically and in developing countries.
6. The faster and further we reduce global emissions; the lower the risks of breaching dangerous and irreversible tipping points in the earth’s climate system.
7. All relevant emissions must be included in the mitigation efforts, including maritime and aviation transport.
8. Further reviews shall take place at regular intervals and in a timely manner, taking into consideration the new scientific data and level of urgency.

**II. Mitigation**

9. In order to achieve the ultimate purpose of the Convention and in accordance with the precautionary principle, developed countries shall commit to more ambitious emission reduction targets.
10. Lebanon is of the view that many developing countries are already very active on mitigation of their emissions and are prepared to enhance their actions in return for additional financial, technological and capacity building support from developed countries.
11. Lebanon is also of the view of that developing countries are prepared to deviate from their emissions substantially below baseline in the event that specified and predefined support is provided from developed countries to enable early and effective implementation. **A stronger level of ambition from Annex I Parties will lead to stronger ambition from developing countries.**



12. Lebanon suggests that developing countries adopt nationally appropriate mitigation actions, according to their respective responsibilities and capabilities and with technical and financial support from the developed countries.
13. The specific needs and special circumstances of developing country Parties that are particularly vulnerable to the adverse effects of climate change and the adverse impacts of the implementation of response measures, that would have to bear a disproportionate or abnormal burden, shall be given full consideration to avoid abnormal burden on any developing country.
14. Parties should cooperate to promote a supportive international economic system that would lead to sustainable economic growth and development for all developing country Parties, thus enabling them better to address the problems of climate change and the impact of response measures.
15. All Parties shall implement mitigation actions, policies and measures in such a way as to minimize the adverse effects of their actions, policies and measures including the adverse effects on international trade, and social, environmental and economic impacts on other Parties, especially on developing country Parties and in particular those identified in Article 4, paragraphs 8 and 9, of the Convention.
16. All mitigation actions, policies and measures taken to combat climate change, including unilateral ones, shall not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.
17. Lebanon suggest that international assistance will:
  - Enable developing countries clearly identify actions they can take to meet GHG mitigation and development objectives.
  - Increases awareness among countries of options and best practices for effective mitigation. Enhances the effectiveness of implementation of such actions at national and local levels, and the credibility of all countries' mitigation efforts.
18. Lebanon believes that developed countries should be held accountable for meeting their commitments to support developing countries actions.

### **III. Adaptation**

19. It is important for Lebanon that adaptation finance is delivered as grants not loans and covers the full additional cost of adaptation under UNFCCC.
20. It is of great need to significantly scale-up the provision of financial resources, in the order of tens of billions of dollars, is a crucial precondition for implementing the framework and preventing people and countries suffering from their limited adaptive capacity.
21. Lebanon believes that adaptation actions should be targeted at the vulnerable people in developing countries.
22. Lebanon suggests that adaptation measures be designed in a way that they effectively contribute to poverty reduction and sustainable development strategies as well as to low carbon development pathways.
23. It is important for Lebanon that decision-making on all levels to be inclusive, participatory and transparent.

### **IV. Finance**

24. Lebanon believes that Annex I countries must immediately and constructively engage with the G77 and China's proposal for financing, both as a trust-building measure, and to advance negotiations towards an effective and mutually acceptable outcome and notably, shall adhere to the following:
  - The emphasis on the principle of equity and common but differentiated responsibilities
  - Operate under the authority and guidance, and be fully accountable, to the COP
  - Have an equitable and geographically balanced representation of all Parties within a transparent and efficient system of governance (Article 11.2 of the Convention)
  - The choice of direct access to funding by the recipients should be made available,

- Ensure recipient country involvement during the stages of identification, definition and implementation, rendering it truly demand driven. The main source of funding will be through the implementation of commitments under Article 4.3 of the Convention. The funding will be “new and additional” and not included within ODA and under the UNFCCC

## **V. Technology**

25. Lebanon believes that Annex I countries must immediately and constructively engage with the G77 and China’s proposal on technology, both as a trust-building measure, and to advance negotiations towards an effective and mutually acceptable outcome and most notably, the establishment of the “Multilateral Climate Technology Fund”.
26. Lebanon suggests that nuclear power should not receive any support as part of measurable, reportable and verifiable finance.

## **VI. Compliance**

27. Lebanon suggests that all legally binding obligations be subject to a compliance system that is compulsory and backed by legally binding consequences tailored to the nature of these obligations.
28. Lebanon suggests that the compliance system provides assistance to Parties to meet obligations where needed, including through a link to the Financial Mechanism to ensure necessary funds.

PAPER NO. 13: LESOTHO ON BEHALF OF THE LEAST DEVELOPED COUNTRIES

06 FEBRUARY 2009

Subject: Fulfilment of the Bali Action Plan and the components of the agreed outcome to be adopted by the Conference of the Parties at its fifteenth session (AWG-LCA) - Adaptation and Means of Implementation

The Least Developed Countries (LDCs) under the United Nations Framework Convention on Climate Change (UNFCCC) welcome and expresses their appreciation to the Chair of Ad-hoc Working Group on Long-term Cooperative Action (AWG-LCA) for accepting invitation to prepare and update a document assembling the ideas and proposals of Parties on the elements contained in paragraph 1 of the Bali Action Plan (decision 1/CP.13) including further submissions received from Parties.

DC Group takes this opportunity to express its views on Adaptation and Means of Implementation taking into account the elements referred to in paragraph 1 of the Bali Action Plan. The Group also reaffirms its willingness and cooperation to work with the Ad-hoc Working Group on long-term cooperative action, now, up to and beyond 2012, under the convention to complete its work and present the outcome to the Conference of the Parties for adoption at its fifteenth session.

It is agreed that the work of the Ad-hoc Working Group on Long-term Cooperative Action (AWG-LCA) will move from expressing views and ideas to negotiation. Considering the nature of the negotiations, the LDC Group is submitting a proposal on Adaptation and Means of Implementation as follows.

#### **Preamble**

Resolving to urgently enhance implementation of the Convention in order to achieve its ultimate objective in full accordance with its principles and commitments, a comprehensive mechanism and structured approaches are necessary to enhance action on adaptation. The mechanism should support action on adaptation now, up to and beyond 2012.

Vulnerability and adaptation to climate change is context-specific and adaptive capacity varies by the countries and the socio-economic conditions as well as other local circumstances.

An appropriate mechanism is necessary to ensure equity and justice in allocating resources and build adaptive capacity, and need to set up an institutional arrangement as part means of implementation of adaptation at different levels.

#### **Objectives**

To establish comprehensive and structured approaches to enhance action on adaptation under the Convention, including, inter alia, actions identified in the BAP, paragraph 1 (c). This should enable, support, facilitate, and implement adaptation actions by addressing the adequate, predictable and timely flow of new and additional financial resources and deployment, diffusion and transfer of technology to support urgent and immediate national, sub-regional and regional adaptation activities and programmes of all developing countries.

The approaches should ensure implementation of adaptation taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change especially LDCs and SIDS, and further taking into account the needs of countries Africa affected by drought, desertification and floods.

The comprehensive and structured approach must support, on an ongoing basis, efforts to enhance national capacity to incorporate adaptation considerations into the national development process and to implement stand-alone adaptation efforts. The outcomes of the implementation of this approach should enable all Parties to:

- be fully informed on the impacts of climate change;
- build resilience to the impacts of climate change; and
- develop and implement measures including planned international migration to address those impacts for which it is difficult to build resilience at national level.

### **Institutional Mechanism for Implementation of Adaptation**

#### **Principles**

The comprehensive and structured approach must:

- promote coherence in the way that adaptation issues are addressed under the UNFCCC;
- encompass broader principles, including vulnerability and respective capacity to address vulnerability, for allocation of adaptation resources;
- facilitate access to means of implementation including finance, technology, capacity building, and knowledge sharing for adaptation at national, sub-regional and regional levels;
- facilitate access to new, additional and predictable financial resources separate and apart from ODA that are supported by appropriate institutional mechanisms;
- facilitate linkages with other national, sub-regional, regional and international bodies and stakeholders that are implementing adaptation and related activities;

#### **Institutional Arrangement**

Establish a Subsidiary Body under the Convention, in accordance to Rule of Procedures 27.2(i), with a majority of members from developing countries, to enhance urgent action for adaptation, focusing on the provision of financial resource and technical support, compatible with Convention principles and provisions, to enable and support developing countries' adaptation actions.

The functions of the Subsidiary Body can include, but are not limited to, the planning, organization, coordination, monitoring and evaluation, including of the enabling means of implementation, of international actions on adaptation to climate change and facilitate action at national and regional level.

#### **Establishment of Convention Adaptation Fund**

The comprehensive and structured approaches must include the establishment of an Adaptation window, under the framework of the G-77 and China's proposed Financial Mechanism for Meeting Financial Commitments under the Convention, based on assessed contributions from Annex I countries and other possible sources of finance, compatible with Convention principles and provisions, as well as an international insurance mechanism,

The Fund must:

- include solidarity funds to address catastrophic risk and collective loss-sharing mechanisms to address the unavoidable impacts of climate change;

- be used to enable and support developing countries in the following areas, inter alia:
- implementation of adaptation programs or projects, including those identified in the NAPAs or national adaptation strategies;
- preparation of NAPAs or national adaptation strategies, where appropriate, including their integration into local and national planning;
- research, development, deployment, transfer and diffusion of appropriate adaptation technologies;
- improvement of V&A assessments, including costs;
- capacity-building for adaptation.
- ensure direct access to financial resources.

### **Work Programme on Adaptation**

For full an effective implementation of the convention, a consolidated work programme on adaptation under proposed comprehensive and structured approaches must include the following:

#### **Principles**

Be strictly guided by equity and the principle of common but differentiated responsibilities and respective capabilities under the Convention;

Take into account differing and specific characteristics of sub-national and national, and sub-regional and regional vulnerability, combining both physical, biological, and socio-economic aspects, including gender sensitivity, as integral parts of adaptation actions.

#### **Scope**

Be comprehensive, ranging from vulnerability assessments, planning implementation, to monitoring and evaluation;

Distinguish between, and balance the needs for (i) adaptation to short-term climate shocks, due to increasing numbers of extreme events, including adaptation to the impacts of unavoidable climate change; and (ii) adaptation to long-term shifts in climatic conditions;

Distinguish between, and balance the needs for finance for adaptation programmes and plans that are (i) integrated with development planning; and (ii) stand-alone programmes which are additional to national development planning, and which should be financed at full costs;

#### **Technology**

Technology support for the work programme under this comprehensive and structured approach must:

- Take into account that adaptation technology is sector and, where appropriate, ecosystem-specific, recognizing inter-sectoral linkages;
- Enhance endogenous adaptation technologies;
- Address the need for research and development, deployment, diffusion and transfer of appropriate adaptation technologies;

- Enable knowledge transfer; technology development, deployment, transfer and diffusion; and capacity-building, including social learning, enabling environments and information dissemination and sharing; and
- Cover full costs for technology for stand-alone adaptation projects.

## **Financing**

Financing for the work programme under this comprehensive and structured approach must:

- Be predictable and stable, new and additional, adequate and timely, for the implementation of nationally determined adaptation priorities, both urgent and long term, including priorities identified through the NAPA-like process and national adaptation strategies;
- Be provided from the assessed contributions of developed countries as part of their commitments under the Convention;
- Be supported by new and innovative international and regional mechanisms to ensure predictable financing;
- Not jeopardize the developing countries' efforts to alleviate poverty as part of sustainable development planning;
- Ensure the timely flow of new and additional resources to address the immediate and urgent national adaptation activities in particularly vulnerable countries, as well as those activities that need to be implemented over a longer time horizon;
- Enable and support efforts, including high-priority ones, on an ongoing basis, to enhance national capacity to incorporate adaptation concerns into the development process ;
- Be significantly scaled up to match with need and ensure adequacy and equity in allocation of funds for adaptation, including the mobilization of new resources, beyond the existing funds under the Convention and its Protocol; and
- Go beyond the integration of adaptation into the development process, include standalone adaptation projects and be separate and apart from ODA.

Considering immediate needs for adaptation and enhancement of action in future, the Bali Action Plan clearly stated that the adaptation actions for now, up to and beyond 2012. Least Developed Countries believes that static means of implementation for adaptation can not be appropriate. It needs a dynamic nature and learning by doing and bringing changes in the course of implementation would be appropriate. Considering the time dimension in the negotiations and climate change, the Least Developed Countries proposed the following phases for implementation of adaptation.

### **Phase I: Now and Up to 2012: Implementation of NAPA and Build Capacity**

38 Least Developed Countries have already prepared and submitted their National Adaptation Programme of Action (NAPA) and others are in the process of completion. Immediate implementation will build capacity of the Least Developed Countries to prepare National Adaptation Action Plan as next phase activities.

Implementation of NAPA by the Least Developed Countries will also facilitate other developing countries to prepare their National Adaptation Action Plan and learning can be used to bring effectiveness of adaptation. The phase of adaptation activities must include:

- include a package of assistance to support the implementation of NAPAs or national adaptation strategies, including financial, technical, capacity building and institutional support;

- include a three-year pilot phase of “adaptation activities implemented cooperatively” to catalyse rapid learning about adaptation “good practice “ by supporting enhanced implementation of demonstration projects, programs and policies in vulnerable countries and communities;
- include capacity-building for operational planning and designing of adaptation including detailed project designs, costing of adaptation, and increase of adaptive capacity, among others;
- support for public information, awareness-raising, education and training activities including publication of peer-reviewed documents and journals by the professional and practitioners from LDCs
- establishment and maintenance of databases, management systems and repositories of adaptation-related information through international, regional and sub-regional adaptation centres;
- promotion of professional development opportunities, through scholarships, fellowships and access to other forms of training;
- preparation and dissemination by UNFCCC of compilations and syntheses of best practices in adaptation;
- strengthening regional centres to coordinate and disseminate information on best practices; and
- promotion of professional exchange between technical personnel from different countries and regions.

#### **Phase II: Beyond 2012**

- Set up an institutional arrangement at different levels as a part means of implementation of adaptation actions identified in the BAP, paragraph 1 (c).
- Develop an appropriate mechanism to ensure equity and justice in allocating resources and build adaptive capacity of all developing countries that are particularly vulnerable to the adverse effects of climate change especially the least developed countries and small island developing States, and further taking into account the needs of countries in Africa affected by drought, desertification and floods.
- Continue capacity-building for operational planning and designing of adaptation including detailed project designs, costing of adaptation, and increase of adaptive capacity, etc and modified based on learning from the phase I.
- Continue support for public information, awareness-raising, education and training activities including publication of peer-reviewed documents and journals by the professional and practitioners from LDCs
- Continue maintenance of databases, management systems and repositories of adaptation-related information through international, regional and sub-regional adaptation centres.

PAPER NO. 14: MALAYSIA

**SUBMISSION BY MALAYSIA ON THE ELEMENTS OF THE BALI  
ACTION PLAN**

**Shared Vision for Long Term Cooperative Action**

**Background to the Shared Vision**

The objective of the United Nations Framework Convention (FCCC) is contained in its Article 2, which states that its ultimate objective and any related legal instrument is to achieve the stabilization of greenhouse gas concentrations in the atmosphere at a level that would enable ecosystems to naturally adapt and not harm food production.

This objective is to be achieved by measures based on the principles of equity and common but differentiated responsibilities and respective capabilities of developed and developing countries, the need for precautionary measures, sustainable development and promotion of a supportive and open international economic system.

The Convention called on developed country Parties listed in Annex I to take the lead in combating climate change. This leadership role by the Annex I Parties remains an important pillar in our efforts to address climate change.

**Scope of the Shared Vision**

If the shared vision is to have credibility and buy-in from all Parties, it must address all the deficits which are outstanding. In particular, the lack of progress on the issues of **mitigation, adaptation, and technology and finance** are very apparent and need to be addressed quickly. It is vital to address these issues as developing countries, which have contributed least to climate change, have been the most adversely affected by its adverse impacts.

**As such, the shared vision should focus on how to enable the full, effective and sustained implementation of the Convention through addressing these issues. It is not to renegotiate the Convention or the Kyoto Protocol.**

The shared vision should not attempt to introduce new issues until the existing issues have already been adequately addressed. If we have difficulty in making progress on the existing issues of mitigation, adaptation and technology and finance, adding new issues such as differentiation of Non-Annex I Parties and the requirement for individual review of Non-Annex I Communications, will only slow down progress on addressing climate change.

**Processes to Achieve the Shared Vision**

A shared vision refers to an ideal future state that must also be shared by all countries. As such, it must be formulated in the spirit of consensus decision-making. It is not something that can be imposed on any developing country Party. Moreover, we cannot talk about shared vision in a vacuum. Any shared vision that emerges must be within the context of the economic development of nations and their efforts to eradicate poverty and improve the livelihoods of their citizens. We must therefore examine this issue in the context of development, especially the continuing need for developing countries to move towards developed nation status.

Every country has a right to development. Developed countries, having first occupied the environmental space in the process of developing their economies, have a historical responsibility to address climate change. They also have better capacity, whether from economic, technological or human resource perspectives, to address climate change. Recognition of this leadership role of developed nations is found in the Preamble and Article 3 of the Convention which emphasizes the principles of common but differentiated responsibilities; the leadership role of developed country Parties; and promotion of sustainable development policies and measures, especially in developing country Parties.



### **The Long Term Global Goal**

**Discussions from now till Copenhagen and beyond should focus on the specific provisions of the Convention that require further efforts to ensure their sustained implementation in line with the principle of equity, historical responsibility and common but differentiated responsibilities and respective capabilities. Annex I Parties should take deeper cuts in the second commitment period to demonstrate their leadership role. This is based on the recognition that the largest share of historical global emissions has originated in developed countries, as stated in the preamble to the Convention.**

The determination of a global goal must not infringe on the inalienable right of developing countries to continue on their development path. Malaysia disagrees with any attempt to create an implicit target for carbon emissions reduction that will be imposed on developing countries. However, we may implement nationally appropriate mitigation actions (NAMAs), supported and enabled by technology, financing and capacity building, as per paragraph 1 (b) (ii) of the Bali Action Plan.

### **Balanced and Sustained Treatment of Elements by the Bali Action Plan**

It must be reiterated that the Bali Action Plan is a balanced and sustained approach to address climate change that covers the elements of mitigation; adaptation; technology development and transfer and provision of financial resources and investment. For the plan to be effective, all the elements must be addressed. The outcome that Malaysia seeks in COP 15 in Copenhagen is therefore balanced and sustained implementation of all these elements, including the requirement of Article 4.7 of the Convention that “the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention relating to financial resources and transfer of technology.

More specifically, the balanced and equitable outcome in COP 15/CMP5 requires that Annex I Parties take deeper cuts in the second commitment period in the Kyoto Protocol as specified by its Article 3.9, in order that developing countries are assured of their rights to environmental space for their continued development.

Since the Bali Action Plan calls for enhanced action on financing and technology, developed countries should bear the full cost of financing, technology and capacity building on a measurable, verifiable and verifiable basis, above the incremental costs currently required by the Convention in order to support and enable NAMAs so that developing countries can reduce their emissions without having to compromise their continued development.

Malaysia is of the view that non-parties to the Kyoto Protocol should take on comparable commitments in COP 15 as required by the Bali Action Plan.

### **Enhanced Action on Mitigation**

Developed country Parties must implement their commitments in a measurable, reportable and verifiable manner. These commitments relate to their leadership role in reducing emissions (Article 4.2 of the Convention), financial resources (Article 4.3 of the Convention) and technology transfer to developing countries (Article 4.5). Other relevant provisions of the Convention include Articles 4.4, 4.6, 4.7, 4.8 and 4.9. Delays in implementation of these commitments have prevented the achievement of the ultimate objective of the Convention in stabilizing greenhouse gas concentrations in the atmosphere. As such, Annex I Parties should enhance implementation of these and other Articles in the Convention.

### **Enhanced Action on Adaptation**

Adaptation has always been given less importance in the climate conference. Malaysia underlines the need for urgent action on adaptation. Adaptation is important because developing countries are bearing the adverse effects of climate change while having contributed least to the problem.

Malaysia urges that balanced treatment be accorded to adaptation and mitigation since no amount of mitigation can prevent the adverse effects of climate change from being felt for decades to come. As such, financial and technological support from Annex I parties to non-Annex I parties are essential.

While much has occurred in terms of workshops, little implementation has taken place. As such, Malaysia would propose the establishment a framework/mechanism under the Convention to enable, support, facilitate and implement adaptation actions while addressing the adequate, predictable and timely flow of new and additional resources. This framework should also address urgent and immediate national adaptation activities and activities that need to be implemented in the longer-term.

**In terms of the generation of funds, it is important to note that the current global financial crisis has demonstrated that a very high level of funding (measured in trillions) can be generated in a matter of weeks in developed countries to address important issues. Since the climate crisis is considerably more serious than the financial crisis, it deserves a similar or larger financial package on an urgent basis.**

**Financial contributions made outside of the Convention should not be considered fulfilment by Annex I Parties of their obligations to provide measurable, reportable and verifiable financing under the Convention.**

#### **Enhanced Action on Technology and Finance**

It is regrettable that many years have passed with little progress on technology and finance. To move towards action, Malaysia has examined the G77 and China's proposal on this matter and wish to **support the proposal to establish a Technology Mechanism under the UNFCCC to accelerate technology development, deployment, diffusion, transfer and associated enabling activities such as capacity building.**

This mechanism will have a Executive Body on Technology supported by Strategic Planning Committee, Technical Panels, Verification Group and a Secretariat, whose functions are explained in the G77 and China submission.

Since patented technologies involves payments to holders of Intellectual Property Rights, and future technologies need monetary resources for their development, the mechanism has provision for a Multilateral Climate Technology Fund (MCTF).

There will also be established Technology Action Plans that will define policies, actions and funding for all relevant technologies. **We urge all Parties to study and support this mechanism to move forward the agenda on technology to address climate change.**

PAPER NO. 15: MALDIVES ON BEHALF OF THE LEAST DEVELOPED COUNTRIES

**International Air Passenger Adaptation Levy**

**A proposal by the MALDIVES on behalf of the GROUP OF LEAST DEVELOPED COUNTRIES (LDCs)  
within the framework of the Bali Action Plan**

12 December 2008

**Executive Summary**

Following the very successful example of the French ‘Leading Group’ solidarity levy to combat HIV/AIDS, the LDCs Group proposes an *adaptation solidarity levy on international air passengers* to provide more adequate funding for adaptation activities in the poorest and most vulnerable countries and communities.

In line with the French levy, the LDC Group proposal is to establish a small passenger charge for international flights – differentiated with respect to the class of travel – *to raise between \$8bn and \$10bn annually* for adaptation in the first five years of operation, and considerably more in the longer-term. This will constitute a significant step *towards ensuring adequate financing for developing country adaptation costs*.

The levy is to benefit the Kyoto Protocol *Adaptation Fund*, which currently is replenished by a two percent solidarity levy on the share of proceeds from the Clean Development Mechanism. It is to be universal in the sense of covering all international air travel and collected by airlines at the point of ticket sale. Being international and dependent only on the evolution of the air travel demand – and not on bilateral replenishment – the funds raised will truly be *new and additional*, as well as *significantly more predictable* than traditional funding mechanisms.

The levy will also be able to provide individual people and businesses who have the means to fly internationally with the opportunity to take on their responsibilities and express their solidarity with those fellow human beings who are much less capable to deal with, the impacts of the international passenger flight emissions. The levy provides for an *equitable mechanism for victim compensation* in a sector which – due to the non-national character of the emissions – eludes the traditional interpretation of common but differentiated responsibilities in terms of national (historic) emissions.

The proposed levy will have no significant effect on passenger numbers – less a tenth of the expected annual growth rate – and hence *minimal to no negative impact on tourism dependent economies*. By contrast, it will have *significant positive impacts on the development of the poorest and most vulnerable countries and communities*, by avoiding climate change impacts through timely and adequate adaptation measures funded by the revenue raised through the levy.

**The LDC Proposal**

*Background.* In light of the fact that adaptation to climate change impacts is crucial to development, especially for the poorest and particularly vulnerable countries and communities, and given the inadequacy of existing adaptation funding, the proposed solidarity adaptation levy on international air passengers will provide a *development life-line* for these countries. The proposed levy is therefore not only in line with the idea underlying the French Leading Group on Solidarity Levies to Fund Development, but it has the added advantage that the purpose of the levy – to fund adaptation in particularly vulnerable countries – is directly linked to the activities being levied in accordance with the *polluter pays principle*, a feature which will be *key to the public acceptability* of the proposed levy.

The proposed levy also conforms to the idea of *common but differentiated responsibilities and respective capabilities*, but because of the non-national nature of the activities this conformity is not with respect to the responsibilities and capabilities of countries, but with respect to (i) the personal responsibilities of passengers due to the international emissions produced and (ii) their capability revealed by the ability of flying internationally. Indeed, given the international character of the activities in question and of the resulting emissions, *the only equitable way* deal with these non-national responsibilities for these activities is at the personal level, which – given the price levels of international flights – also respects the idea of respective personal capabilities.

#### *Operational Details*

- The revenue of the levy will go to the Kyoto Protocol Adaptation Fund to fund its activities.
- The level and travel class differentiation of the levy is to be according to the *tried and tested formula* of the French levy, at present \$6 (€4) per economy trip, and \$62 (€40) per business/first class trip.
- The levy is to be collected by airlines from their passengers at the point of sale and transferred by the airline to a dedicated account of the Adaptation Fund.
- The airlines will be compensated by the Adaptation Fund for reasonable administrative costs incurred in the course of collection.
- The Board of the Adaptation Fund will be requested to operationalise the collection mechanism for the levy, if necessary in consultation with the relevant international bodies concerned with the aviation sector.

*Revenue.* The calculations of the near-term revenue estimates of \$8bn to \$10bn are based on a travel class differentiation in line with the French solidarity levy, as well as IATA figures and estimates for current international passenger numbers (760m) and annual demand forecasts (5.1% p.a.). The calculations also assume 93% coverage of all international scheduled air traffic – i.e. reflecting International Air Transport Association (IATA) membership – and 99% collection efficiency.

This revenue, by its very nature, will be *new and additional* to the traditional flows of bilateral funding for adaptation. Given its nature, the revenue will also not be subject to the problems of bilateral replenishment, and it will be *predictable* due the stability of the airline sector.

*Potential Impact on Development.* Understandably, many poor and vulnerable countries which rely heavily on air passengers in their development aspirations might be worried about the impact on their economic development of the proposed solidarity levy. As it happens, the sensitivity of international air travel demand, particularly long haul, to price increases is very low. Given average price elasticities of passenger demand of -0.66 and -0.60 for short and long-haul travel demand,<sup>1</sup> respectively, an average price increase of 0.8% – equivalent to the levy of \$6 to a \$750 economy class ticket – would result in a drop in demand of 0.52% and 0.47% for short and long-haul flights, respectively: an order of magnitude less than the expected growth of air travel of 5.1% per annum. Given this, and the considerable benefits in terms of avoided impacts that will accrue to the recipients of the funds raised, the proposed solidarity levy will have substantial positive effects on the development of the poorest and most vulnerable countries and communities.

*Potential Impact on Airline Business and Competition.* As a passenger levy is borne by passengers directly and as the cost of collection is reimbursed to the airlines, the only impact of the proposed levy will be through its demand implications, which as noted earlier, will be minimal with respect to the expected demand growth. With respect to potential competitiveness implications, the universality of the levy will insure that unfair distortions are avoided.

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<sup>1</sup> InterVISTAS Consulting Inc (2007) **Estimating air travel demand elasticities**, Report prepared for IATA.

PAPER NO. 16A: NORWAY

Norwegian submission on MRV in AWG-LCA

Introduction

1. Norway welcomes the opportunity to provide further views on the elements contained in paragraph 1 in the Bali Action Plan by 6<sup>th</sup> of February, to be taken into account in the preparation of the convergence document to be considered at the fifth session of the AWG-LCA.
2. The concept “measurable, reportable and verifiable” (MRV) applies to both developed and developing countries. MRV encompasses nationally appropriate mitigation actions (or commitments for developed countries) and developed countries’ support for developing countries actions in the form of technology, finance and capacity building. Together with the issue of comparability of actions or commitments by developed country Parties, this MRV concept will be covered by one of the workshops at the fifth session of the AWGLCA. Norway will through this submission provide information and clarify our views on the three elements of the concept of measurable, reportable and verifiable.

National GHG inventories of emissions by sources and removals by sinks for all Parties

3. Deep cuts in global emissions are necessary to avoid dangerous climate change. Information about greenhouse gas emissions and removals, GHG categories and emission trends worldwide is essential to be able to implement the most efficient tools and measures to reduce emissions globally, including identifying actions that reduce both emissions and costs at the same time, so called win-win solutions. Under the Convention, all Parties are therefore required to prepare and submit national greenhouse gas inventories. The requirements for Annex I Parties and Non-Annex I Parties differ substantially on submission frequency and information required. As a consequence, lack of accurate emission data in many developing countries makes it difficult to identify adequate responses in reducing emissions.
4. Independent of agreements on technology transfer and financial support to mitigation actions, Norway believes that all Parties should prepare and submit greenhouse gas emission inventories regularly. The collection of world-wide emission data should be based on principles that ensure transparency and independent international expert reviews.
5. All Parties should improve their GHG inventories, on the basis of the strengthened 2006 IPCC guidelines. The workshop in Bonn and the following discussions on the concept of MRV should focus on when developing country Parties will be ready to take on obligations to have in place annual national sector wide GHG inventories, with a view to establishing suitable timelines for this according to national circumstances. In other words, Norway hopes that we in Bonn could reach a common understanding that there is a need for such an obligation for all Parties. The most advanced developing countries should as quickly as possible after COP 15 in Copenhagen begin to prepare and submit national inventories on a yearly basis, and take on obligations soon after.
6. The IPCC guidelines allow a process where inventories can be steadily improved, by advancing from default emission factor values and methods to more advanced levels, the so-called tiered approach. Norway believes that it is better to start submitting the simplest form of inventory and gradually improve, rather than wait with submitting an emission inventory until a more advanced level is reached.
7. To improve national capacities in implementing procedures for preparing national GHG inventories, including building strong national institutions, Norway believes that GHG inventories should be prepared and submitted on an annual basis to ensure sufficient continuity and consistency in international GHG inventory reporting. This means that comprehensive

capacity building, including financial and technical support, should be provided as soon as possible, taking into account differences in national circumstances and capacities. As a consequence, much more resources have to be made available to existing support structures under the Convention and the Protocol and in the developing countries themselves. Developed country Parties should provide the resources for the necessary capacity building on MRV in developing countries. Both increased North-South and South-South cooperation will be necessary.

8. Rules and procedures to ensure international reliable global emission data should be a cornerstone of the Copenhagen Agreement, including rules and procedures for international verification of national GHG inventories. A comprehensive and more robust international expert review of inventories prepared by all Parties should be ensured. Norway believes that this should be built on existing review procedures. Substantial more resources need to be allocated to this important work. International expert reviews will serve the purpose of building inventory capacity in countries being reviewed, in addition to serving the purpose of achieving consistency in the reported data.

#### Mitigation commitments/actions

9. All developed country Parties should in the Copenhagen Agreement take on national sector wide emission reduction targets. These obligations should be supported by robust compliance mechanisms. The strength of compliance mechanisms will ultimately depend on the effectiveness of reporting requirements and the review of submitted reports. MRV rules and procedures for mitigation commitments by developed country Parties should in the Copenhagen Agreement build on existing structures and processes under the Convention and the Kyoto Protocol. Such rules and procedures should ensure that Parties have systems in place that allow them to take part in emission trading. The system should allow the application of legally binding consequences for non-compliance with commitments.
10. All Parties should be given the possibility to take part in an extended emissions trading market. Emissions trading could be a means for transferring resources from developed countries to developing countries. At the next meeting in Bonn, we should look into how the latter countries could be enabled for the participation in such new mechanisms. For other mechanisms than emission trading, it should in particular be looked into how to ensure that only reductions that exceed agreed nationally appropriate domestic mitigation actions are credited. This is important to ensure that, in addition to ambitious reductions by developed country Parties, emissions in developing countries will substantially deviate from projected baseline emissions.
11. A future regime on reducing emissions from deforestation and degradation in developing countries (REDD) must be based on a reliable framework and capacity for monitoring, reporting and verification of emission reductions, and on a robust, effective and sustainable system for mobilizing financial resources. The regime must be a results-based mechanism for the distribution of these resources to tropical forest countries willing and able to reduce emissions from deforestation and degradation, or to conserve or enhance their forest carbon stocks. Hence, regardless of whether this regime will be based on a fund or a market mechanism with offset of credits, it is Norway's view that a stringent MRV system for REDD must be established similar to the existing requirements for Annex I countries under the Convention and the Kyoto Protocol. It will be difficult to establish a comprehensive MRV system from "day one" in many developing countries. Thus, a post-2012 regime should follow the IPCC tiered approach for GHG inventories, and establish clear incentives for developing countries to continuously improve their monitoring and reporting systems.
12. Norway notes with interest the idea of establishing a register for voluntary national appropriate mitigation actions by developing country Parties. Such a registry should, in our view, not replace national sector wide GHG inventories, but should be additional, aiming at establishing a good database for developing country Parties' mitigation actions. A database that includes

information on these actions' effects on emissions should facilitate international verification of these effects in order to determine concomitant financial support.

MRV of support provided to developing country Parties

13. Norway welcomes further work on MRV on technology support, finance and capacity building for developing country Parties. To establish and maintain confidence among Parties, it is important that the concept of MRVs is kept in mind when elaborating and defining new support structures. Structures should ensure transparency and accountability, and be related to outcomes and results.
14. With regard to the issue of finance, the Norwegian proposal on international auctioning has the potential of being quite straightforward when it comes to MRV. The amount of allowances to be auctioned could easily be tracked (internationally) through an international transaction log.

PAPER NO. 16B: NORWAY

**The fulfilment of the Bali Action Plan.**

**Views from Norway on the development and transfer of technologies.**

**Guiding perspectives on technology development and transfer**

1. Norway welcomes the opportunity to provide further views on the fulfilment of the Bali Action Plan, to be taken into account in the preparation of the convergence document to be considered at the fifth session of the AWG-LCA.
2. The development and transfer of environmentally sound technologies are not aims in themselves, but means to an end. With respect to mitigation, the structure and priorities of the technology framework in a post-2012 climate agreement should result in emission reductions.
3. The most important condition to facilitate an increase in the development and implementation of climate friendly technologies is to give polluters economic incentives to mitigation. This can be done efficiently by introducing a price of carbon, either through a tax or a system of cap-and-trade.
4. Technologies to achieve emission reductions are available in the market today, but their application requires appropriate incentives as well as financial, technical, managerial and institutional resources. To be able to work effectively, we need to move from a level of analysis and advice related to technology transfer in general, to more practical and focused approaches.
5. The activities to promote technology development, demonstration and transfer should also be seen in a broader context of development. Increased implementation of environmentally sound technologies will often have positive spill-over effects on developmental goals and local air pollution.
6. The UNFCCC is one of several international and intergovernmental organisations and initiatives that promote the development and transfer of environmentally sound technologies. We should seek cooperation and coordination with existing organizations and institutions in the field of technology development and transfer, to increase efficiency and avoid duplication of work.
7. R&D efforts must be strengthened to meet our needs in a long term perspective. International cooperation in R&D will also enhance technology transfer. Joint research centres, demonstration programmes or similar activities should be encouraged and supported. Abatement technologies should be developed and demonstrated in close cooperation between developed and developing countries. The technology framework must incentivise and reward North-South and South-South technology cooperation.

**Technology Needs Assessments**

8. To ensure appropriate implementation, the Technology Needs Assessments undertaken by developing countries should be the starting point for technology transfer activities at the international level. The TNAs should be further developed to form a basis for financing of projects and programmes, also at the international level. They must address national barriers to technology transfer in a specific way and also identify needs for capacity building. TNAs should include deployment schemes, including policies and measures to give a supporting framework for lasting technological improvement. This should be rooted in a national development context.

**Priority sectors for technology transfer**

9. Support for technology transfer should be practical, and it should be directed to the sectors with the largest emissions and/or potential for emission reductions. This includes energy production, energy use, certain industries, transport, agriculture and deforestation, corresponding to the synthesis report on technology needs, published in 2006 (FCCC/SBSTA/2006/INF.1). In these sectors, there are often significant co-benefits related to implementing best available



technologies, in terms of e.g. reduced costs, increased efficiencies, improved air quality and reducing health problems.

10. Targeting priority sectors will facilitate a broader programmatic approach, rather than depending on a project-by-project strategy. Norway believes a broader approach will be more effective in meeting national needs and development goals.

#### **Linking technology needs to end results**

11. The proposal by South Africa, of establishing a voluntary registry for NAMAs, is one possible starting point for linking technology needs assessments with practical outcomes in the form of mitigation. A registry with information on possible mitigation action, including information on needs for technology, capacity building, costs and emission reduction potentials, can promote contact between project developers and sources of finance. It can also contribute to broader information sharing.

#### **Financial needs**

12. There are large financial needs for technology development, demonstration and transfer as shown by the analyses by the IPCC, the IEA and in the paper on financial flows by the UNFCCC secretariat. Norway's proposal for auctioning a share of AAUs internationally will deliver predictable and substantial financial resources.
13. Technology transfer will not be successful and have lasting effect if the national framework is not supportive. This requires stronger environmental national policies and measures. Support to building technical and managerial competence, effective national institutions and policies, is therefore as important as direct financing.
14. A number of funds and financial mechanisms to support technology transfer exist today. While there is a need to raise the overall level of funds, the UNFCCC's main strategy for governing the use of funds should be to influence and strengthen existing financial mechanisms to meet the Convention's needs. Special attention should be given to stimulate increased private sector involvement.
15. A considerable part of the necessary investments must be financed by the private sector, where a global carbon market will be the main mechanism. Economic incentives targeting the private sector are thus critical in stimulating technology transfer. This is particularly important in sectors with a high risk of carbon leakage, such as industries exposed to international competition.
16. For countries with a relatively high degree of industrialization, the main incentives for investing in climate friendly technology will be related to the carbon market. The carbon market alone may not be sufficient to stimulate technology transfer in all cases, particularly not for the least developed countries. Financial and other support from the international community will be needed.
17. Financial support should cover:
  - Full cost of developing technology needs assessments
  - Incremental cost of deployment and diffusion of environmentally sound technologies
  - Support for building technical and managerial capacity and institutional frameworks in recipient countries.
  - Support to established joint international centres or programmes for development, demonstration and deployment of technologies. Such centres should have their main financial and institutional basis in the partner countries.

## **Governing structures**

18. The current EGTT has laid a foundation for an improved understanding of the general issues of technology transfer. Future efforts for technology development and transfer should be more focused and practical, and place emphasis on priority sectors. The future framework should ensure a transparent and effective way of reporting back to the Convention.
19. The proposals by Japan and G77 of a strategic committee or group for technology development and technology transfer will strengthen the technology framework. This can be a continuation of the present situation, but with a more specific mandate. The tasks of this group or committee should include:
  - Identify priority sectors,
  - Provide and disseminate information of best available technologies and best practices for enabling environments.
  - Develop a technology action plan for the convention, with targets related to different time frames and priority sectors
  - Be responsible for contact and cooperation with relevant international bodies and initiatives involved in technology transfer
  - Facilitate involvement of the private sector and stimulate their investments
  - Stimulate international joint research and development efforts
20. The suggestions of technical or advisory panels supporting such a committee are also fruitful. It will make a sectoral approach more feasible.

PAPER NO. 17: PANAMA ON BEHALF OF COLOMBIA, COSTA RICA AND PANAMA

**Submission by Panama on behalf of Colombia and Costa Rica**

- The fulfillment of the Bali Action Plan and the components of the agreed outcome to be adopted by the Conference of the Parties at its fifteenth session (AWG-LCA)
  - Ideas and proposals on the elements of paragraph 1 of the Bali Action Plan

Ideas and proposals on the elements of paragraph 1 of the Bali Action Plan received from Parties will be taken into account in a document that would further focus the negotiating process on the fulfillment of the Bali Action Plan and on the components of the agreed outcome to be adopted by the Conference of the Parties at its fifteenth session, describing areas of convergence in the ideas and proposals of Parties, exploring options for dealing with areas of divergence and identifying any gaps that might need to be filled in reaching an agreed outcome to be prepared by the Chair prior to the fifth session as invited by the AWG-LCA. (See FCCC/AWGLCA/2008/8, paragraph 25 and FCCC/AWGLCA/2008/L.10, paragraph 2(a))

On paragraph 1.b.iii. of the Bali Action Plan (Decision 1/CP.13):

We recall our previous statements on financing for REDD, where we underlined the importance of equitable, sufficient, additional, predictable and long-term financing or incentives for the implementation of REDD activities.

Furthermore, we are of the opinion that this discussion should have its proper place in the AWG LCA agenda, with its due allotment of time. The three year discussion on the methodological aspects of REDD under SBSTA has been fruitful, but we believe that there is little more space for progress under this Body until there is definition of policy options and positive incentives that will enable parties to implement REDD activities. Many of the methodological discussions that remain unsolved depend on this definition.

Finally, we feel the need for the discussion on positive incentives to include options such as market mechanisms, funds, and other innovative mechanisms and policy options.

PAPER NO. 18A: REPUBLIC OF KOREA

**A Proposal for AWG-LCA  
Republic of Korea, February 2009**

**For Mitigation: Registry of NAMAs**

**Proposal:** To establish a Registry of NAMAs (Nationally Appropriate Mitigation Actions) of developing countries at the UNFCCC Secretariat as part of the agreed outcome to be adopted at COP 15 in Copenhagen this year.

**Rationale:** Developing countries are expected to take Nationally Appropriate Mitigation Actions (NAMAs) as is agreed and contained in paragraph 1(b)(ii) of the Bali Action Plan. It calls for “*nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity building, in a measurable, reportable and verifiable manner.*”

Based on paragraph 1(b)(ii) of the Bali Action Plan, these NAMAs as well as the support provided to enable these actions are expected to be MRVed. In fact, many developing countries are already taking many meaningful NAMAs according to their capabilities in the context of sustainable development.

In order to operationalize paragraph 1(b)(ii) of the Bali Action Plan, a Registry to be opened at the UNFCCC Secretariat could serve as a basis for compiling the NAMAs of developing country Parties as well as for identifying financial resources and technologies needed to implement these actions. As NAMAs are expected to be taken in the context of sustainable development, NAMAs to be registered could also be quite identical with sustainable development policies and measures (SD-PAMs).

Many meaningful mitigation actions already taken by developing countries are not internationally recognized as climate action under the current climate regime. Parties need a mechanism through which these actions could be recognized as international actions for mitigation. NAMAs taken in the context of sustainable development can be recognized as international climate actions once they are entered into the Registry.

This Registry could also facilitate MRV of both the NAMAs of developing countries and the support provided by developed countries by keeping track of the actions of both sides.

**Scope of NAMAs:** NAMAs that could be registered should be specific and focused actions that have direct linkage with mitigation. The Registry should not be a compilation of information or repetition of national communications. It should be a list of focused actions to be taken by developing countries. The scope and extent of NAMAs could range from economy-wide mitigation targets to specific policies and measures in certain sectors or areas.

Examples of NAMAs that could be registered range from SD-PAMs, REDD, sector-wide technology standards, laws & regulations, standards (energy efficiency standards), cap-and-trade schemes, renewable energy ratio, sectoral targets, building insulation codes, congestion charges and carbon tax to the promotion of public transportation, energy pricing and gas-mileage of motor vehicles.

Actual actions to be taken could be different according to the level of development and capabilities of each Party. It should be left to each Party to decide which actions to register. Parties capable of undertaking economy-wide targets could register them. Other parties not capable of managing economy-wide targets could register sectoral targets or specific sustainable development policies and measures that have direct linkage with mitigation.

**Nature of registration:** Registration should be voluntary. It should be up to each Party to decide whether to register its NAMAs or not. Registration could be interpreted as an expression of willingness to implement mitigation actions comparable to the capabilities of respective Parties as they see it appropriate for themselves. Many domestic mitigation actions already being implemented in developing

countries in the context of sustainable development could also be registered on a voluntary basis. Once these actions are registered, they could be regarded as international actions to combat climate change.

**Elements to be registered:** Each Party could register the content of NAMAs as well as the kind of support they need to implement those actions. It could also specify, if possible, the expected quantity of mitigation resulting from its NAMAs. Implementation plan, such as timeframe, could also be registered.

Developing countries lacking the capacity to specify financial and technological needs and the expected quantity of mitigation could simply register the kind of NAMAs they are willing to take and request support for capacity building to specify their needs and to calculate the expected quantity of mitigation from their NAMAs.

After registration, the Registry could serve as a basis for MRV of NAMAs as well as the support provided by developed countries. Paragraph 1(b)(ii) of the Bali Action Plan itself is calling for MRV of both NAMAs and the support provided. Implementation process of NAMAs as well as the provision of support could be recorded on the Registry.

**Types of NAMAs:** NAMAs could be classified into 3 types according to whether support from developed countries is needed or not and what kind of support is needed.

1. **Actions that developing countries would take voluntarily and unilaterally without support from developed countries:** Developing countries are already taking many meaningful mitigation actions in the context of sustainable development or energy security without support from developed countries. Many developing countries are already drawing up National Action Plans for climate change. These actions should also be recognized as international actions for combating climate change once they are registered on the Registry. They should be interpreted as unilateral contributions from developing countries to global commons.
2. **Actions that require support from developed countries:** These are the actions that developing countries are willing to take with the support of financing and technology from developed countries. Developing countries could specify the details of support they needed. In case they could not specify the details due to the lack of capacity, they could simply list up the need for capacity building as well.
3. **Actions that developing countries are willing to take for the purpose of getting carbon credit as an outcome of implementing such actions:** REDD would be a good example for such an action. Carbon credit could provide market incentives that could induce investment in such actions. Sectoral crediting or cap-and-trade schemes could be potential approaches that could enhance the project-based credit schemes under the current CDM. There would be many NAMAs that could not receive financial and technological support from public funds of developed countries as the scale of those funds would not be sufficient to support all the potential NAMAs. Mitigation actions that are not supported by public funding and those projects with high cost, such as state-of-the-art power plants, could be initiated if they are to get carbon credit. Some developing countries could mobilize funds from financial sector for a specific mitigation project and initiate such a project as is now the case of the unilateral CDM. We can also recognize carbon credit for additional mitigation actions which exceed the level of mitigation set by initial NAMAs. Crediting NAMAs could be operated similarly to the current CDM. This could also be thought as expanding the scope of current CDM to accommodate program- and policy-type actions that go beyond project-type actions.<sup>1</sup>

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<sup>1</sup> For the details of NAMA credit, please refer to another proposal by the Republic of Korea, titled "For Finance and Technology Transfer Mechanism (AWG-LCA) & Clean Development Mechanism (AWG-KP): Carbon Credit for NAMAs"

**MRV of NAMAs:** The level of MRV should be differentiated according to the level of support to be provided.

1. Those actions that are taken unilaterally by developing countries without support from developed countries are not required to be subject to strict MRV requirements. They could rely on voluntary reporting from the Parties concerned. Periodic national communications could serve as the MRV procedure for those unilateral and voluntary actions if the reporting could be regularly updated to provide enough information on the implementation of the actions. Standardized international guidelines could be established for the reporting.

2. Those actions that are taken with support from developed countries could be subject to MRV procedures agreed upon between developed and developing countries. In this case, the MRV could be mandatory and be based on certain criteria for evaluation. Basic principle for the MRV of these actions could be agreed on by COP 15 in Copenhagen. Details of the criteria and standards for the operationalization of MRV of these actions could be further explored even after COP 15 in view of the limited time left before Copenhagen.

3. MRV of those actions that are taken for the purpose of getting carbon credit should be based on criteria and standards for verification similar to that of current CDM methodology in order to maintain environmental integrity. As an agreement on the nature of carbon credit mechanism for mitigation actions of developing countries has not been reached yet, it is difficult to prejudge the details of the criteria of MRV of these actions. However, the same principle of environmental integrity and similar criteria for additionality of current CDM could be applied to credit for NAMAs. Thus, NAMAs could be regarded simply as an addition to the activities that could be included in the CDM.

#### **Merits of NAMA Registry:**

For developing countries, it could provide a basis for international recognition of many meaningful mitigation actions taken in the context of sustainable development as actions for combating climate change. It could also provide a basis for specifying as well as MRVing the financial and technological support necessary for the implementation of NAMAs.

For developed countries, it could provide a basis of listing up mitigation actions of developing countries. It could also serve as a compilation of actions that clarifies specific financial as well as technological needs. Also, it could enhance the effectiveness of international support by linking the support with verifiable mitigation efforts of developing countries.

NAMA Registry could serve as a tool to implement paragraph 1(b)(ii) of the Bali Action Plan. Many developing countries would continue to take many meaningful mitigation actions in the context of sustainable development. NAMA Registry would serve as an important tool for international climate change regime to accommodate those unilateral actions as international actions for combating climate change.

In view of the limited time left before COP 15 in Copenhagen, Parties could aim to agree on basic principles for NAMA Registry, while details for operating the Registry could be further elaborated after COP 15 through 2012.

PAPER NO. 18B: REPUBLIC OF KOREA

**A Proposal for AWG-LCA and AWG-KP  
February 2009**

**For Finance and Technology Transfer Mechanism (AWG-LCA) & Clean Development Mechanism (AWG-KP): Carbon Credit for NAMAs**

**Proposal:** To recognize carbon credit for the verifiable mitigation arising from certain NAMAs (Nationally Appropriate Mitigation Actions) as is agreed and contained in paragraph 1(b)(ii) of the Bali Action Plan. Carbon credit for NAMAs could be established either under the UNFCCC as one of the means of financing and technology transfer mechanism for the implementation of paragraph 1(b)(ii) of the Bali Action Plan or as an enhancement of the current CDM under the Kyoto Protocol as part of CDM reform package. Revenues from the sales of the credit could provide incentives for developing countries to initiate NAMAs which are not directly supported by developed countries. Public financing from developed countries would not be sufficient to support all the NAMAs of developing countries. Carbon credit for certain NAMAs would channel financial resources and technologies necessary for NAMAs which otherwise would not happen. REDD would be one of the important NAMAs and carbon credit for REDD could be a good example for crediting NAMAs.

To credit NAMAs could enhance the current project-based CDM towards program- and policy-based crediting mechanism. Sectoral targets or cap-and-trade schemes, which are not eligible for credit under the current CDM, could be the NAMAs that would be eligible for credit.

Not all NAMAs would generate credit. Only those NAMAs not supported with financing and technology transfer by developed countries should be eligible for credit. Credit should be given only to the verifiable quantity of mitigation from NAMAs. There have to be criteria and standards for verification to maintain environmental integrity, which could be built on the existing rules of the CDM.

The scope of NAMAs eligible for credit would have to be reviewed and decided by the COP. NAMAs that are difficult to be financed by the direct support from public funds of developed countries and those of high cost which could not be initiated by developing countries in business-as-usual circumstances could be eligible for credit.

**Rationale:** NAMAs are expected to be supported by developed countries as is stipulated in the Bali Action Plan. However, public funds would not be sufficient to support all the NAMAs to be taken by developing countries. Public funds are limited in scope and size and would not be large enough to cover all financing and technology transfer needs of developing countries.

This is why we need to look into the possibility of seeking resources from private sector and carbon market of developed countries to support and provide incentives for NAMAs of developing countries.

By linking certain NAMAs with carbon market, we can support and provide incentives for NAMAs which otherwise would not be able to be initiated due to the lack of support from public funds of developed countries. Carbon market could be a sustainable source of financial flow for NAMAs. If Parties agree to recognize carbon credit for the verifiable mitigation from certain NAMAs, then developing countries could have a sustainable source of finance and technology transfer in the form of carbon credit. Carbon credit could also provide incentives for investment in certain mitigation projects in developing countries.

**Criteria and scope of credit:** Credit could be given to the actual mitigation verified according to the criteria and standards comparable to the current CDM methodology in order to ensure environmental integrity. Not all NAMAs can generate verifiable mitigations. Only a small portion of NAMAs would be verifiable as actual mitigation. Carbon credit would be given to specific verifiable mitigation actions. Moreover, NAMAs supported by developed countries should not be eligible for credit. Credit could be

given to the NAMAs with such high cost that developing countries are not able to initiate investment in those NAMAs in business-as-usual situations if there is no credit.

**To go beyond carbon off-setting mechanism:** Carbon crediting is an off-setting mechanism in its original scheme. However, it could be improved to go beyond carbon off-setting mechanism if certain portion of the carbon credit is discounted and retired from the global carbon market. If certain portion of the carbon credit is not sold in the market and is permanently retired from the market, then it could be counted as a global net reduction. Discounting of carbon credit could also be used to enhance the environmental integrity of credit from NAMAs.

It could also go beyond carbon off-setting mechanism if the Annex I Parties to the UNFCCC raise the level of their GHG reduction commitments in anticipation of the carbon credit to be supplied from certain NAMAs. Additional commitments of the Annex I Parties could be counted as additional net global reduction generated by the carbon credit mechanism.

**Negotiation for details:** Parties could agree on the principle of recognizing carbon credit for the verifiable mitigation from certain NAMAs, which are not supported by developed countries, as part of the agreed outcome that could be adopted at COP 15. Details on operating the carbon credit mechanism for NAMAs, such as the criteria for verification, scope of NAMAs which could qualify for credit and the possibility of discounting credit, could be worked out after the COP 15 as was the case of the CDM under the Kyoto Protocol.



PAPER NO. 19: SAUDI ARABIA

FULFILLMENT OF THE BALI ACTION PLAN  
AWG-LCA

REFERENCE

The AWGLCA, at its 4<sup>th</sup> session, invited Parties to submit to the secretariat, by 6 Feb 2009, their views on the fulfillment of the Bali Action Plan and the component of the agreed outcome to be adapted by the Conference of the Parties at its fifteenth session. FCCC/AWGLCA/2008/L.10 para 2(a) Work programme for 2009 - Draft conclusions proposed by the Chair. Also FCCC/AWGLCA/2008/8, para 25 Report of the AWGLCA second meeting held in Bonn.

GUIDING FRAMEWORK

Saudi Arabia emphasizes that the UNFCCC is and will continue to be the main guiding framework for all climate change actions for now and into the future. Therefore, all its principles, rights and obligations, as well as existing annexes shall remain valid for any agreed outcome at Copenhagen. In particular,

- Based on the principle of common but differentiated responsibilities (as outlined in the Annexes to the Convention):
  - Attempts by developed countries to amend the UNFCCC to impose new obligations on developing countries to undertake mitigation commitments are counter-productive and will only delay the achievement of a positive outcome by the end of 2009;
  - Saudi Arabia is very concerned about the ideas that started surfacing lately regarding differentiations among developing countries. This is not within the scope of the convention nor the Bali Action Plan, nor will it help in building confidence among Parties.
- Based on the principle of comprehensiveness
  - Dealing with climate change should include equal treatment of all GHGs and all sources;
  - The idea of adopting the sectoral approach in setting targets is not acceptable.

FULFILLMENT OF THE BALI ACTION PLAN.

Shared Vision

- The Shared vision is for the enhancement of implementation of the convention. A shared vision on the four building blocks (Mitigation, Adaptation, Finance, and Technology) will construct the shared vision for the enhanced implementation.
- The enhanced implementation should be for the present, as well as up-to, and beyond 2012.
- The shared vision should not include a binding global goal.

Adaptation

- Adaptation is more urgent for all developing countries including Saudi Arabia. Saudi Arabia views adaptation as encompassing two components:
  1. Adaptation to the adverse impact of climate change, to which our vulnerability is high, resulting from desertification, water scarcity, low-lying coastal areas, among others.
  2. Adaptation to the impact of response measures, and the need to build resilience to the expected fluctuations in government revenue, through measures such as adaptation planning and economic diversification. Saudi Arabia's revenue is dependent on oil; other countries have different dependencies and economic vulnerability.

#### Mitigation

- A clear separation and distinction must be maintained between mitigation measures for developed and developing countries, taking fully into account the principle of common but differentiated responsibilities
- Industrialized countries have mitigation commitments that are subject to specific targets, timetables, and compliance review.
- Developing countries can take mitigation actions, in line with their sustainable development objectives. These mitigation actions are contingent upon providing the financial support and technology transfer (no specific commitments or targets on developing countries).
- All mitigation commitments and mitigation actions must take into account the adverse impacts and spillover effects on developing countries including countries that are highly dependent on the export of fossil fuels.
- The mitigation actions should be comprehensive in addressing all greenhouse gas sources in all sectors, including greenhouse gas sinks.
- MRV: in order to provide for MRV for the mitigation action as well as MRV for the support, a system needs to be designed to where all pledges for mitigation action by developing countries are registered; also all pledges for financial support and technology transfer are also registered. The system will then pair the support with the action and tracks the flow of resources as well as the mitigation action and thus provide for the MRV on both sides.

#### Finance

- The need for new and additional finances to address the challenges of climate change must be emphasized
- There is an apparent need for a new financial structure under the COP supervision to focus the efforts, channel all the resources, avoid fragmentation, and facilitate the flow of finances in a fair manner.
- Saudi Arabia supports the proposal by the G77 & China in this regard

#### Technology

- There is a need for a new institutional body under the COP to address all issues related to technology research, development, transfer, and diffusion, as well as capacity building for the different technologies;
- Saudi Arabia support the proposal by the G77 & China for an executive body for technology
- Promotion and emphasis carbon capture and storage (CCS) as a key technology for mitigation, and support its inclusion under the CDM
- Promotion of cooperation in the technological development of cleaner fossil fuels, and non-energy uses of fossil fuels (such as petrochemicals).

## FURTHER ELABORATION

Saudi Arabia remains concerned with the adverse impacts of the policies and measures taken by Annex I parties to achieve their emission reduction targets. Higher targets will only compound that concern.

- Any agreed outcome must enhance the implementation of the provisions on the impact of response measures through the inclusion of a comprehensive framework and a new system to address these impacts: the new system can be a Forum for addressing the impact of response measures. A Forum that brings together all expertise, including from the economists and experts from the modeling community to help Parties in providing continuous analysis and modeling of the impacts of policies and measures. The Forum should:
  - Include a strong mechanism to understand these impacts and help all Parties in selecting effective policies and measures that do not hinder the sustainable development process.
  - Strengthen resilience and adaptive capabilities in developing countries to the unavoidable spillover effects of policies and measures.
  - For developed countries, there is an urgent need to conduct gap analysis and enhance implementation through inclusion of agreed methodologies, reporting, review, assessment and compliance.
- In addition, the agreed outcome shall not involve the introduction of any trade barriers, explicit or implicit, on fossil fuel exports from developing countries under the pretext of achieving energy security or energy independence.

It is important to fulfill the mandate to reach a decision in Copenhagen by the end of this year to include Carbon Capture and Storage projects under the CDM, based on the recommendation of the CDM Executive Board.

- Since the world will continue to be dependent on fossil fuels for decades to come, inclusion of CCS under CDM is crucial. It will speed up the development and transfer of technology and support its diffusion and wider application to greatly reduce GHG emissions from fossil fuels.
- It will also be beneficial for the carbon market and opens up opportunities for fossil fuels producers and many other developing countries to contribute to the global effort in combating climate change.

PAPER NO. 20: SRI LANKA

**Early Submission of Information and Views**

This has reference to your letter number ODES/COP14/09 dated 09 January 2009 regarding the early submission and views. I am pleased to submit the following views of the Government of Sri Lanka.

**3. The fulfillment of the Bali Action Plan and the comments of the agreed outcome to be adopted by the conference of the Parties at its fifteenth session (AWG-LCA)**

**1. A shared vision for long- term cooperative action**

Sri Lanka would like to join with other parties to implement the long term cooperative actions to fulfill the ultimate objective of the convention.

- ❖ Sri Lanka intends to initiate several programmes on developing adaptation and mitigation measures focusing sustainable development with the financial and technical support of international community.

Therefore, we request AWG to consider the proper mechanism to obtain financial and technical support of Annex I parties to mitigate the adverse impacts of climate change.

Sri Lanka has taken into consideration the Ecological Aspect, Climate Aspect and Distribution Aspect of Wealth. Incorporating these aspects into Human Development Index (HDI) we have developed an index called Sustainable Human Development Index (SHDI).

We request all countries to look at this new concept called SHDI and reevaluate their position.

**2. Enhanced National /international action on mitigation of climate change,**

Sri Lanka has taken action to identify the gaps related to implement the mitigation measures, baseline and mitigation scenarios and projections, and new options for mitigation as well as the barriers for mitigation focusing on formulating policy framework to be incorporated into national development plans.

The Government of Sri Lanka established the Sri Lanka Carbon Fund with a view to improve our participation in CDM and multilateral financial assistance to enhance such institution mechanism would be important. Sri Lanka need capacity enhancement in bundling small scale projects, implementing policy CDM, programmatic CDM and REDD initiatives. A mechanism where developing countries can see technical expertise, financial assistance for verification and validation are essential. Validation and verification should be streamlined and capacities of DOEs need to be improved.

**3. Enhance action on adaptation,**

- Adapting to climate change may sometimes require “hard” infrastructure, such measures will be insufficient to address the full scope of climate change impacts.
- What we have learned is that we need to look after our natural environment as the most effective response to climate change.
- It will be imperative to ensure that ecosystems that support biodiversity and provide all of our people with food, water and sources of income remain intact and interconnected to allow for nature and people to adjust to changing environmental conditions.
- Incorporating ecosystems into adaptation plans are most important for conservation, development and poverty alleviation.

- Not only do healthy coral reefs and mangroves provide a buffer from increasing storm surges, but they will also continue to supply the ecosystem services upon which coastal communities depend for their livelihoods, including, for example, fisheries and tourism.
- Maintaining a healthy natural environment is the best way to build resilience to impacts such as rising sea levels, increased and strong surges associated with storms.

Sri Lanka invites parties to join us in pursuing ecosystem-based adaptation as a key consideration in our collective approach to tackling climate change.

- Most importantly, for all this we urge the international community to focus on urgent need for adequate and predictable financial resources for the implementation of adaptation.

### ❖ **Risk Reduction and Risk Management**

We know that tropical ocean especially in Western Pacific and Indian Ocean a slight increase of Sea Surface Temperature associated with sea level rise, more valiant and frequent cyclone and other weather related extreme events are to be expected. These definitely affect Tropical Island nations and low lying coastal areas of all these are developing countries.

Therefore, it is necessary to put in place national and international tools to respond to these event and management of risks associated. In this regard networking, information sharing, data exchanging and capacity building are very important.

PAPER NO. 21: SWAZILAND ON BEHALF OF GAMBIA, GHANA, LESOTHO, MOZAMBIQUE,  
NIGER, SENEGAL, SWAZILAND, UGANDA,  
UNITED REPUBLIC OF TANZANIA, ZAMBIA AND ZIMBABWE

Submission of African Governments to the 5th Session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA 5), Bonn, Germany, 29 March - April 2009

Ideas and proposals on Paragraph 1 of the Bali Action Plan: Concrete action for the inclusion of soil organic carbon restoration as a significant mitigation and adaptation tool to climate change

**The Republics of: The Gambia, Ghana, Lesotho, Mozambique, Niger, Senegal, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe**

These African countries have jointly prepared this submission to flag the importance and relevance of a decision for including the potential of soils in drylands in sequestering carbon. One such exponent is biochar, a soil amendment technology and bio-energy co-production from agricultural and forestry biomass that can significantly help reducing emissions<sup>1</sup> by displacing fossil fuel use and sequestering carbon in stable soil carbon pools<sup>2</sup>.

**Linkages between climate change and land degradation: Making the case for carbon in soils.**

Today the world faces a situation of growing urgency given the combined consequences of and the intricate linkages between climate change and frequent and severe droughts, land degradation and desertification. The effects of these phenomena take place and are most severe in the villages and in the countryside of developing countries, with negative impacts on the ability of the inhabitants to cope with and adapt to climate change.

When these linkages are combined with biodiversity loss, drought and water scarcity, they have a major bearing on the potential of the arable lands to produce adequate food and on the availability of water for agricultural purposes, human consumption and economic development. This exacerbates poverty, food insecurity and malnutrition among the affected populations and reduces their capacity to cope with and adapt to climate change.

Available information indicates that occurrences of food shortages, hunger and malnutrition as well as economic underdevelopment are prevalent in those regions of the world, where local level livelihood conditions, especially rural poverty, land degradation, desertification and climate change and frequent droughts, result in low agricultural productivity. Simultaneously, climate change, drought, land degradation and desertification have the potential to drive populations, scaled in the millions, from their lands, exacerbating poverty, provoking environmental conflicts and creating a wave of environmental refugees and forced migrations.

**Including carbon in soils under the climate change mechanism to reduce emissions**

Unless the livelihoods of the poor and vulnerable inhabitants of the drylands and the natural resource base upon which they depend and which entirely determine the economic opportunities available to them, can be made more resilient, coping with and adapting to climate change may be impossible for them. The general population of the drylands, who are mostly poor, can be made less vulnerable to these phenomena with greater socio-economic and scientific knowledge-based interventions and appropriate synergistic responses to climate change, land degradation, desertification and drought.

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1 Reducing emissions of nitrous oxides, which is a more potent greenhouse gas than carbon dioxide.

2 The main ideas of this paragraph were taken from Biochar White Paper: [http://www.biochar-international.org/images/White\\_Paper.doc](http://www.biochar-international.org/images/White_Paper.doc). Original source: Yanai et al., 2007, Effects of charcoal addition on N<sub>2</sub>O emissions from soil resulting from rewetting air-dried soil in short-term laboratory experiments, *Soil Science and Plant Nutrition*, 53:181-188. And

Rondon, M., Ramirez, J.A., and Lehmann, J.: 2005, Charcoal additions reduce net emissions of greenhouse gases to the atmosphere, in *Proceedings of the 3<sup>rd</sup> USDA Symposium on Greenhouse Gases and Carbon Sequestration*, Baltimore, USA, March 21-24, 2005, p. 208.

These linkages among climate change, drought, land degradation and desertification must be capitalized on when undertaking the most appropriate synergy responses that simultaneously address all these phenomena and enhance the potentials for reducing greenhouse gas emissions and adapting to climate change.

The African countries that submit this proposal acknowledge that the resilience of the dryland populations can be brought about with innovative and proven technologies, such as biochar, in which the LCA can play a fundamental role to tap the potential of soils in sequestering carbon thus achieving the objective of reducing emissions and simultaneously adapting to climate change.

The problem is crucial for African countries. However the same IPCC asserts that land degradation and desertification are major problems that are caused either by natural factors (e.g., prolonged droughts) or by human activities, particularly overgrazing, uncontrolled cultivation, fuel-wood gathering, inappropriate irrigation practices, uncontrolled urbanization, and tourism development<sup>3</sup> affect other developing areas of the world. Urbanization and related activities (e.g., road construction) have resulted in losses of permanent pasture and increases in the agricultural use of marginal lands, leading to further natural environment and land degradation<sup>4</sup>. Dryland salinity and water logging, especially in low-lying countries in the Middle East and parts of central Asia (e.g., around the Aral Sea), also are contributing to land<sup>5</sup>.

As Africa is relevant, Desanker and Magadza, et. al<sup>6</sup> stress that in the continent, climate change and desertification remain inextricably linked through feedbacks and counter-feedbacks between land degradation and precipitation. These authors stress that changing climate in the continent might worsen desertification due to alteration of spatial and temporal patterns in temperature, rainfall, solar insolation and winds. Conversely, desertification aggravates carbon dioxide (CO<sub>2</sub>)-induced climate change through the release of CO<sub>2</sub> from cleared and dead vegetation and reduction of the carbon sequestration potential of degraded lands. Although the relative importance of climatic and anthropogenic factors in causing desertification remain unresolved, evidence shows that certain arid, semi-arid, and dry sub-humid areas have experienced declines in rainfall, resulting in decreases in soil fertility and agricultural, livestock, forest, and rangeland production. Ultimately, these adverse impacts lead to socioeconomic and political instability.

Drylands cover more than 41% of the Earth's land surface<sup>7</sup> and affect directly to more than two billion people<sup>8</sup> whose livelihoods are susceptible to degrade further due to desertification, land degradation and drought (DLDD). The mandate of the United Nations Convention to Combat Desertification and mitigate the effects of Drought (UNCCD) is to address these issues of DLDD. Synergy action is envisaged when implementing the UNCCD. Therefore, the interest is that the Desertification Convention aims to tackle these issues under the framework of the strategic programme 2008-2018 and by taking into consideration the programme of work to be adopted at COP 15 of the UNFCCC as pertains adaptation and mitigation.

### **First Measures that can be taken: Actions towards Copenhagen**

Actions to combat desertification, land degradation and mitigation drought impacts are mostly undertaken on the land to boost the productivity of the soil and guarantee the availability of all other resources with a view to enhance sustainable development and eradicate poverty. Invariably, the desired end results such as availability and secured water resources, agriculturally productive land and increased food security, sustainable rangelands and improved livestock production, sustainable wildlife management and utilization, among others, all reduce the vulnerability and enhance the capacities of the inhabitants of the drylands to cope with and adapt to climate change.

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<sup>3</sup> Kharin, 1995; IPCC 1996, WG II, Chapter 2; and Schreiber and Shermuchamedov, 1996; UNEP, 1997.

<sup>4</sup> Source: UNEP, 1997.

<sup>5</sup> <http://www.ipcc.ch/ipccreports/sres/regional/165.htm>. See also degradation Kharin, 1997; and UNEP, 1997.

<sup>6</sup> <http://www.ipcc.ch/ipccreports/tar/wg2/pdf/wg2TARchap10.pdf>.

<sup>7</sup> UNCCD, 2008.

<sup>8</sup> Ibid.

Subsequently, it becomes imperative to put in place practical measures to promote sustainable land management in line with the expected results of the UNFCCC COP 15 outcomes. One such practical measure is the utilization of biochar to increase soil organic matter (SOM) and improve its oxidation, a process that could enhance the long-term water-retention capacity of the soil, enabling it to sustain terrestrial vegetation that will help to arrest land degradation and desertification. Concomitantly, direct action targeting the drylands would mean that carbon sinks would be enhanced as drylands have an enormous potential just by the fact of their degradation status.

Soils in the drylands constitute a significant sink for carbon, and they have potential to further increase carbon sequestration. Increased attention to action on land and soils during the climate change negotiations could provide considerable results towards adaptation to and mitigation of climate change. Bringing agricultural land use into the realm of implementation mechanisms on climate change would not only foster carbon sequestration, but could also create considerable added value through simultaneous impact on land fertility.

Furthermore, the African countries that have jointly made this submission believe that the necessity to work in collaboration among conventions can be best achieved in concrete action, one of which is provided by raising awareness and advocating for the inclusion of Biochar into the set of decisions of COP 15 of UNFCCC as one more tool that highlight the climatic importance of the land and Biochar technologies. Adopting biochar technologies could change the landscape of international development cooperation by strengthening the role and responsibility of private sector financing in the development of rural areas in developing countries.

The political implications, as well as the increase of volume in financial and technological transactions targeting agriculture, could be enormous. In concrete terms, one way forward would be to expand the coverage of the Clean Development Mechanism towards agricultural land uses. This would require new conceptual approaches, appropriate monitoring methodologies and, last but not least, strong political will, expertise and negotiation skills from interested Parties.

### **New rationale for addressing climate change mitigation and adaptation**

For developing countries, strengthened attention to agricultural land use in the context of climate change could provide a new rationale for engaging into the adaptation and mitigation agendas, considering that for many of them the land and soils are the most important natural resource. Up to now land and soils have not featured as major themes in the climate negotiations, and raising awareness on the political significance of related issues would be important.

For developed countries, the inclusion of carbon pools in drylands is an opportunity to expand cooperation schemes that directly target the most vulnerable populations.

For the negotiation of the UNFCCC towards COP 15 in Copenhagen, there is the need to compile what is already known on carbon pools in soils, including biochar, soils emissions, as well as accountability issues of opportunity costs of reducing DLDD. These are some of the recommendations to move forward the soils issues within the LCA as well as the future SBSTA agenda that addresses the linkages between soils and climate change. Another related link is with REDD that includes low forest cover countries. The impacts on the UNFCCC negotiations could be enormous if there is an agreement to immediately consider soils as part of the climate change mechanisms for carbon sequestration.

The signing African countries suggest that the parties need to agree in a decision on the issue of soils by COP 15. The same must include the possible approaches and needed adjustments to the legal and policy framework for further support to climate change action at the national level, including the CDM and adaptation finance. The policy framework for the overall direction on climate change action, starting with Copenhagen, will only be complete if the synergy potential of soils in sequestering carbon is included.



PAPER NO. 22: ZAMBIA

**SUBMISSION TO THE ASSEMBLY DOCUMENT OF THE VIEWS ON PARAGRAPH 1 OF THE BALI ACTION PLAN AS RESPONSE TO REQUEST FOR VIEWS CONTAINED IN CONCLUSION *FCCC/AWGLCA/2008/L.10***

In response to the request for submissions from Parties by 6<sup>th</sup> February 2009 on the assembly document regarding paragraph 1 of the Bali Action Plan (BAP) as reflected in conclusion *FCCC/AWGLCA/2008/L.10*, the following are Zambia's views on the different elements of the BAP.

**(a) A Shared Vision for Long Term Cooperative Action**

The shared vision should not be restricted to a number or figure. It should also be based on the principles of the convention, especially the principle of common but differentiated responsibilities.

The shared vision should be aimed at achieving the ultimate objective of the convention, namely the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent anthropogenic interference with the climate system. As such the shared vision needs to be based on the best available science to determine the level of stabilization, bearing in mind evolving new scientific evidence.

In terms of scope, there shared vision should relate to all the other elements of the Bali Action plan and not only mitigation. In particular, there should be a shared vision on adaptation, required levels of financing as well as necessary technologies and how best to deploy them.

Any established long term goal need to be supported by short term measurable targets both of these need to be periodically reviewed in light of evolving scientific evidence.

**(b) Enhanced National and international Actions on mitigation of climate change**

- (i) All developed country parties need to take on deep and ambitious binding targets whose achievement should be measurable, reportable and verifiable. The efforts of these developed country parties need to be comparable taking into account their different circumstances.

On the part of the developed countries, their level of ambition on enhanced action on mitigation needs to reflect both their domestic reduction efforts as well as what is available to them from the flexible mechanisms.

The quantification of these national actions and binding commitments by developed countries needs to be in the range of 25% to 40% of their 1990 levels by the year 2020.

- (ii) On nationally appropriate actions (NAMAs by developing countries, this should increase proportionally with the enabling financing, technology and capacity building from developed countries.

The efforts of developing countries on the NAMAs need to take into account their development imperatives including the need for poverty reduction. The financing and technology supporting these actions from developed countries must be predictable, measurable, reportable and verifiable.

- (iii) Regarding Policy approaches and positive incentives on issues relating to Reducing Emissions from Deforestation and forest Degradation (REDD) in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, appropriate priority needs to be placed on the REDD as it contributes more than 20% of annual emissions globally.

The REDD scheme needs to be based on ensuring environmental integrity while remaining fair and equitable. In this regard, sustainable management of forests, conservation as well as increasing carbon stocks in forests.

For any REDD scheme to be successful, the rights as well as effective participation of local forest dependent communities will be crucial. In this regard the distribution of benefits or incentives arising from the scheme will need to be as equitable and fair as possible.

The nature of the policy measures need to be national in character but in the context of an international architecture to ensure comparability and integrity.

The REDD scheme must be based on performance based arrangement with demonstrable emission reduction supported by long term financial flows without stringent conditionalities which would prevent the bulk of developing countries, especially Small Island Developing States (SIDs) as well as Least Developed Countries (LDCs).

### **(c) Enhanced Action on Adaptation**

Adaptation is one urgent aspect of the convention and the Kyoto Protocol and the BAP as most countries are already suffering the adverse effects of climate change.

For SIDs and LDCs which are among the most vulnerable parties to adverse effects of climate change, adaptation needs to focus on the immediate support for the implementation of the formulated National Adaptation Programmes of Action (NAPAs).

It is important that adaptation is country driven but sufficiently supported financially by developed countries and other agencies and not tailored to lengthy bureaucratic procedures in disbursing adaptation resources.

There is need to determine the amount of financial resources required for adaptation globally without allowing that process delaying implementation of adaptation activities. The provision of resources and technology for adaptation should be measurable, reportable and verifiable. Adaptation actions need to be integrated with risk reduction strategies.

### **(d) Enhanced Action on Technology Development and Transfer to support Action on Mitigation and Adaptation**

The obstacles and barriers, including Intellectual Property Rights (IPR) that restrict the diffusion and deployment of existing technologies need to be addressed and ensure that the transfer of technologies is subjected to measurable, reportable and verifiable mechanism.

The Poznan Strategic Framework on Technology should provide the necessary framework for the expediting the development and deployment of technologies.

There is need to promote the creation of national and regional centres of excellence in the development and deployment of technologies. In order to stimulate and build capacity for DTT.

The promotion of research and development on technologies such as solar power which have the capacity to result in multiple benefits is important.

### **(e) Enhanced Action on the Provision of Financial Resources and Investment to support action on mitigation, adaptation and technology cooperation.**

The financial resources provided for dealing with climate change in terms of adaptation, mitigation and technology development, transfer and deployment must be new, additional, adequate, predictable and equitable.

These financial resources must be over and above 0.7% of GNP of developed countries Official Development Assistance (ODA). The resources must also be adequate and predictable whose provision must be subjected to a measurable, reportable and verifiable mechanism. Developed countries need to commit a target for the financial assistance as well as technology transfer in the range of 1% of their GNP. It is important that the main source of this financing is through the public sector.

Any funding outside the framework of the convention such as from multilateral financial institutions need under bilateral or multilateral arrangements need to be brought into conformity with the principles and objectives of the convention.

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