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UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION First session Bangkok, 31 March to 4 April 2008

Item 3 of the provisional agenda Development of a work programme

Views regarding the work programme of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention

Submissions from Parties

1. At its thirteenth session, the Conference of the Parties (COP), by its decision 1/CP.13, established the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWGLCA) and tasked it with conducting a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision at its fifteenth session.

2. The COP further instructed the AWGLCA to develop its work programme at its first session in a coherent and integrated manner, and invited Parties to submit to the secretariat, by 22 February 2008, their views regarding the work programme, taking into account the elements to be addressed by the AWGLCA referred to in decision 1/CP.13, paragraph 1.

3. The secretariat has received 26 such submissions. 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.

4. The secretariat has also received submissions from accredited non-governmental organizations. In line with established practice, the secretariat has posted these submissions on the UNFCCC website at <<u>http://unfccc.int/parties_and_observers/ngo/items/3689.php></u>.

FCCC/AWGLCA/2008/MISC.1

^{*} 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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^{*} This submission is supported by Albania, Bosnia and Herzegovina, Croatia, Serbia, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

PAPER NO. 1: ARGENTINA

BALI ACTION PLAN

The Conference of the Parties, by its Decision 1/CP.11, resolved to engage in a dialogue, to exchange experiences and analyze strategic approaches for long-term cooperative action to address climate change (the Dialogue) that included, inter alia, the following areas: (a) Advancing development goals in a sustainable way; (b) Addressing action on adaptation; (c) Realizing the full potential of technology; (d) Realizing the full potential of market-based opportunities. In response, the secretariat organized four workshops under the Dialogue in 2006 and 2007, where countries proposed a number of strategic features for an effective international response to climate change.

At its thirteenth session, held in Bali in December 2007, the Conference of the Parties reached a decision known as the "Bali Action Plan", to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long term cooperative action. The COP further decided that the process would be conducted as a subsidiary body under the Convention, thereby establishing the Ad Hoc Working Group on Long-term Cooperative Action (AWGLCA), which will complete its work in 2009 and present the outcome to the Conference of the Parties for adoption at its fifteenth session. At the same session, the Conference of the Parties also invited Parties to submit to the secretariat by 22 February 2008, their views regarding the work program of the AWGLCA, taking into account the elements referred to in paragraph 1 of the Decision, to be compiled by the secretariat for consideration by the AWGLCA at its first meeting.

The Government of Argentina welcomes this opportunity to submit its views and expectations on the matter.

General Remarks

Argentina's expectation for the work of the next two years is to reach a global agreement that will enhance the multilateral regime on climate change in order to effectively respond to the urgency and challenge at hand. Meeting this challenge requires improved global action and, in particular, that all developed countries adopt binding commitments and deeper GHG emission reductions relative to those presently agreed upon under the Kyoto Protocol. In this sense, we believe that it is important to design a negotiation process that ensures the ability of developing countries to play a meaningful and constructive role, and that coordinates between the tasks of the AWG under the Kyoto Protocol and the AWGLCA under the Convention.

The Government of Argentina considers that the four building blocks of adaptation, mitigation, technology transfer and financial resources and investment, which have received full support under the Dialogue, are intrinsically related in nature. As such, we would like to suggest that the AWGLCA, in its future negotiations, the subsequently arising work programs and related activities, actively promote the interrelation and interaction of these building blocks.

Argentina further considers that the AWGLCA's work program should develop and implement shortterm solutions, while addressing the need for and strengthening mid- and long-term approaches to climate change. This is especially important to support adaptation to the adverse social, economic, and environmental impacts of climate change in developing countries. Short term or immediate strategies support the development of experience, technologies, and broader solutions in our countries, while promoting the protection of public health, local communities and competitiveness. These issues should be given priority, particularly in terms of transfer of new and additional funding. Argentina emphasizes the necessary role of the market and market mechanisms to mobilize the capital and technology in the scale needed to achieve UNFCCC's ultimate goal. However, we strongly believe that market alone cannot deliver the expected outcomes soon enough to avoid irreversible climate change.

Argentina stresses the importance of articulating the goals of the climate change regime with those of other UN agencies and relevant international forums, inter alia, UNIDO, FAO, IFIs, WTO and MEAs, within the broader framework of sustainable development. We believe the process should be oriented and conducted by governments and international organisms and forums where governments are represented. The goal of such a process would include: promoting synergies with the UNFCCC, increasing financial flows that favour climate-friendly development, and coordinating trade mechanisms and economic instruments to support technology transfer for mitigation of and adaptation to climate change. In our view, the AWG-LCA should consider analyzing, as part of its work program, this articulation¹.

Coordination with and consideration of lessons learned from other agreements, including the Montreal Protocol, are relevant to provide insights for climate negotiations. Compliance strategies to assess sanctions for non-compliance by developed country Parties, such as those related to financial commitments, and the increased regular assessments of science, technologies, and economic matters relevant for the response to climate change, similar to those produced by the ozone regime are relevant lessons for consideration. Building on successful past and ongoing global experiences can significantly support us in addressing the broader, more complex challenge of climate change as well as complement the primary axis of relevant scientific information, the Inter-governmental Panel on Climate Change.

Long-term Cooperative Action

Regarding national and international actions on *mitigation*, the Government of Argentina would like to suggest that the AWGLCA explores the benefits and drawbacks of action-based targets based on sectoral approaches, in conjunction with the generally used GHG emission reductions targets. The establishment of a long-term climate target based on actions to move economies towards climate stabilization would offer a coherent and open framework to engage policy makers from different sectors while helping to raise awareness about complex concepts. In addition, a sectoral approach establishing specific means and mechanisms tailored to sector needs, priorities, and GHG contribution may provide the appropriate platform to scale up the level of financing needed to support the massive amount of technology transfer required to meet the UNFCCC's ultimate objective.

The work program should give proper consideration to the alternatives arising from all sectors, sources and sinks, and identify mitigation options that can be implemented as soon as possible, as well as develop a better understanding of sectors that have special barriers for implementation, to allow the international community to enhance its efforts on mitigation in the short and long-run, with a view to avoid abrupt climate change.

With regard to the *reduction of emissions from deforestation* (RED), Argentina deems this issue as extremely important, given the multiple environmental and social co-benefits of its implementation. In order to be successful, RED strategies require the establishment of enabling policy frameworks as well as financial resources for capacity-building, technical assistance and demonstration activities. Argentina believes that these resources could come from both the contribution from Annex I Parties to specific

¹ As the Group of the 77 and China has indicated in its statement during the Thematic Debate of the General Assembly on 12 february, "multilateral action to address climate change firmly rooted in the UNFCCC and the Kyoto Protocol and the UN entities should assist in the effective implementation of its provisions". "Coordination of UN system activities to enhance its role in meeting the challenge of climate change requires inter-governmental consideration and agreement and oversight by member states", and in this context, the AWGLCA could consider analyzing, as part of its work program, how this articulation may take place.

funds and market mechanisms, and that the AWGLCA should explore ways to implement these non-exclusive alternatives.

Regarding action on *adaptation*, Argentina believes that the consideration of processes leading to adaptation to climate change should remain under the umbrella of the UNFCCC. Even though the impacts of climate change are of a local nature, there is a need to strengthen global understanding and capacity to address the issue and, most important, it is imperative to financially support adaptation of developing countries as a matter of urgency.

Argentina celebrates the progress made in Bali to operationalize the Adaptation Fund, which we consider an appropriate tool to financing adaptation activities in developing countries. We believe that the funds available in the Adaptation Fund should aim to cover all financial needs for developing countries to adapt to the adverse impacts of climate change. In this sense, we urge the AWGLCA to explore, as part of its work program, new and innovative mechanisms to drive developed countries, in a reasonable and fair fashion according to their historic and current national circumstances, to greatly increase their contribution to the Adaptation Fund. We also believe that well-defined indicators to determine adaptation priorities should be addressed by the AWGLCA in conjunction with the Adaptation Fund Board.

Finally, we would like to emphasize that new, financial mechanisms and instruments for adaptation created outside the Convention should coordinate with the mechanism developed under the Convention, with an emphasis on transparency, efficiency, and equity.

As regards for enhanced action on *technology development and transfer* to support action on mitigation and adaptation, the Government of Argentina stresses the urgent need to create appropriate mechanisms, taking into account intellectual property issues, to promote actions leading to technology development, deployment, diffusion, and transfer, including enabling activities such as exchange of information, capacity building and innovative financing for both mitigation and adaptation technologies. In particular, Argentina considers that enhanced multilateral cooperation regarding agricultural emissions is of the utmost importance and welcomes new initiatives in this regard. Also, improved energy efficiency and the promotion of renewable energies require an improved international technological framework.

Regarding transfer of technologies for mitigation, Argentina considers that carbon market mechanisms should be explored by the AWGLCA with the support of the Expert Group on Technology Transfer, with a view to drive developed countries to finance the full incremental costs, including the cost of enabling activities, of technology application and deployment necessary for the implementation of GHG mitigation activities in developing countries. As mentioned above, a sectoral approach offers a much needed and logical framework to scale up technology transfer, deployment and related enable activities as well as to elaborate the required performance indicators to measure, report and verify the progress of the process.

With regard to improved action on the provision of *financial resources and investments* to support action on mitigation and adaptation and technology cooperation, Argentina emphasizes the role of the market and market mechanisms to mobilize and scale-up the capital and technology at the level needed to achieve the UNFCCC's ultimate objective. However, we strongly believe that market alone cannot deliver the expected outcomes soon enough to avoid irreversible climate change. The process should be oriented and conducted by governments and international organisms and forums where governments are represented. In this sense, developed-country governments could help changing financial and investment patterns and also should incentivize the private sector to do.

The Government of Argentina stresses the importance of coordinating the financial flows and mechanisms oriented to mitigation of and adaptation to climate change, including the financing

mechanisms under development within the regime, the much needed additional and external funding emerging from multilateral financial institutions established under bilateral or multilateral development programs, and financial resources that may arise through the liberalisation of international trade and opportunities in foreign direct investment. In order to be more effective at addressing our global goals, the processes of both definition and transfer of resources require coordination, transparency and most importantly the participation of developing countries. We believe that the potential imbalance, inequity, duplication and resulting lack of effectiveness posed by parallel initiatives that are not transparent or participatory should be avoided by careful and focused solutions that could be developed through the work of the AWGLCA.

PAPER NO. 2: BANGLADESH

BANGLADESH SUBMISSION ON BALI ACTION PLAN REGARDING WORK PROGRAMME OF THE AD-HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION

Preamble

Bangladesh welcomes the decision "Bali Action Plan" (BAP) by the Conference of the Parties at the Thirteenth Session (CoP13/MoP3) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Bali, Indonesia in November – December, 2007. She also reaffirms the willingness and support to work with the Ad-hoc Working Group on long-term cooperative action (AWG on LCAC), until 2009 to complete its work and present the outcome of its work to the Conference of the Parties for adoption at its fifteenth session.

To accomplish the task, it is very important to sequence the work based on the agreed action plan. Therefore, an agenda is required that identifies the areas that need to be further clarified, the work that needs to be done and the manner in which they will be done. In setting the agenda, however, the special case of the LDCs among the developing countries must be borne in mind. Bangladesh submits that two cardinal principles must be adhered to in this regard.

LDCs as a Special Group

As part of the Non-Annex 1 countries, LDCs including Bangladesh so far have not been required to take actions specifically aimed at mitigation, although actions such as energy efficiency continued to be part of national policy in most countries for other valid reasons. Now that LDCs including Bangladesh, as all other developing countries, have to do their bit as decided in Cop 13 in the Bali Action Plan, in the global effort for lowering GHG emission, this must not compromise Bangladesh and other LDC's right to development. Bangladesh particularly refers to

Article 1 (b) (i) through (vii) and Article 1 (c) (i) through (iv) *of Decision-/CP.13* (Bali Action Plan);

which clearly state the LDC's right to climate resilient development within a sustainable development framework and submits that the work programme must take into account any or all of the following (depending on specific national circumstances):

a) steering the economy towards sustained economic growth that would reduce poverty,

b) food security for the people, especially those living below poverty line,

c) energy security to support pro-poor economic growth and production targets;

d) water security to guarantee a sustainable environment for the present and the future generations; and

e) livelihood security and respect for local community on resource management and extraction

At the same time while the differing national circumstances between developed and developing countries have been acknowledged in Article 1 (a), it must be acknowledged that similar vast differences exist between many of the developing countries, particularly the large ones among them and the LDCs. Such large developing countries with large economies and resource and institutional capability to take mitigation, adaptation and technology-related actions can not and should not be equated with those of LDCs even when all nations are required to lower GHG emission.

Within the aforementioned objectives for sustainable development as well as the differences in national circumstances, Bangladesh is willing to support the effort of the global community adopted in the COP13/MOP3 meetings. Bangladesh's commitment therefore refers to the following premises:

Premise/Principle I

Due weight should be given to the differing national circumstances of LDCs within the developing countries particularly in respect of institutional and human resource capacity, generation of and access to technology, and capability to generate financial resources for investment and capacity building in the work programme of AWG on LCAC for subsequent post-2012 plans of action.

Premise/Principle II

LDC's right to sustainable development which may include, inter alia,

- a) Food Security;
- b) Energy Security;
- c) Water Security; and

d) Livelihood security (including right to health) and respect for local community on resource management and extraction

The mitigation, adaptation, technological choice and financing mechanism options to be chosen by individual LDCs must be flexible enough so that the above two principles are never compromised.

A. The Over-arching Goal of the Work Programme of AWG on LCAC

Setting a Global GHG Emission Reduction Target

The first and foremost task before AWG on LCAC shall be to set the global emission reduction target to facilitate formulation of a comprehensive plan of action required under different blocks of action (mitigation, Adaptation, technology transfer and financial mechanisms).

Bangladesh appreciates the recognition by the parties that deep cuts in global emissions will be required to achieve the ultimate objective of the convention. This is absolutely essential because future scale of adverse impacts of climate change, to which LDCs and SIDS are the most vulnerable among the developing countries, will depend on the scale of reduction of GHG emission. As early peaking year for CO2 is expected to lead to lower temperature rise than a late peaking year, Bangladesh therefore submits that efforts should be made to agree to a deep cut with an early peaking year so that the future vulnerability of the LDCs as well as that of the developing countries be minimised.

The IPCC Fourth Assessment Report suggests that "under most equity interpretations, developed countries as a group would need to reduce their emissions significantly by 2020 (10–40% below 1990 levels) and to still lower levels by 2050 (40–95% below 1990 levels) for low to medium stabilization levels (450–550ppm CO2-equiv). Under most of the regime designs considered for such stabilization levels, developing-country emissions need to deviate below their projected baseline emissions within the next few decades". Following the same principle, while the LDCs too as a group should have lower emission than what their base line projections may indicate, its deviation from the base line projection should be less compared to others.

Considering very wide range of estimates of temperature change and peaking year for CO2, Bangladesh proposes that the AWG on LCAC may include in its work programme:

- Items for discussion on the above goals of emission reduction and its time path including peaking year for CO2 and agree on the maximum global mean temperature increase without jeopardising global prospects of sustained growth
- Determine global mitigation targets for post Kyoto climate regime based on common but differentiated responsibility (regarding but not limited to the time paths, peaking years and allowable limits of emission) between the developed and developing countries and within developing countries, between the LDCs and the rest of them

B. Work Programme Related to Article 1(a)

The decision in Article 1(a) directly affects all other actions by other countries. Hence Bangladesh proposes the following for consideration regarding the work programme of AWG on LCAC.

- (i) All developed countries should include among others the provision for uniform methodology for reporting and decide on the frequency of reporting;
- (ii) The discussion under this item should consider various options and lead to a decision on ways and means to achieve quantified emission reduction;
- (iii) The group may wish to discuss and decide on a process to take inputs from the AWG working under Article 3.9 of the Kyoto Protocol;
- (iv) Discussion should be initiated early on to agree on the operational meaning and modality of the terms "measurable", "reportable" and "verifiable" under 1(a). The experiences of facilitation and the compliance committees under Kyoto Protocol may be useful in developing a method for measurement, verification, and reporting modalities.

C. Work Programme Related to Mitigation under Article 1 (b) (i) to (vii)

Context

Bangladesh's mitigation commitments would mainly focus on reducing emissions from deforestation due to a) heavy reliance on fuel wood for cooking and as well as for commercial and industrial use, and c) reduction of crown cover on committed forest land (14% of the land in Bangladesh are designated forest land) which currently stands at 6% or thereabout. Bangladesh has already declared a moratorium on forest cutting (since 1989) but the capacity of the government to deal with increasing population pressures and subsequent encroachment on forest land had been a problem in reducing the rate of deforestation.

In energy production and consumption, 3 issues are of paramount importance. These are exploration for new gas fields and existing gas reservoir management for increasing the future supply of natural gas for keeping CO2 emission at the minimum for electricity production. *Secondly*, she intends to use whatever coal resources are available in the most carbon-neutral manner for which the use the cleanest coal technology is of utmost necessity. This may, however, be rather costly and without technology transfer leveraged by adequate flow of financial resources there is no way Bangladesh would be in a position to do so. Even within a market-based framework, the resulting electricity may not be cost effective for acceptance by the consumers at the resulting high cost of production. *Third*, Bangladesh wishes to use to the fullest extent possible, all options for enhancing the scope for renewable energy such as solar, mini and micro-hydro (with adequate attention to other issues related to environment and resettlement and livelihood of local community), biogas as well as others such as wind and wave energy as these mature and costs fall for production of electricity. Again relevant appropriate technology transfer accompanied by adequate flow of financial resources are prerequisites for such mitigation actions to be adopted.

Enhanced national and international action on mitigation, item 1(b)

Bangladesh wishes to submit based on the principles enunciated earlier on the special status of the LDCs as well as their right to sustainable development and livelihood that the following be considered while firming up the work programme of the AWG.

- (i) The first meeting of the AWG on LCAC should reaffirm the principles/premises for mitigation and other actions by LDCs including Bangladesh
- (ii) The first and/or subsequent meeting(s) may also define the operational meanings for the terms "measurable", "verifiable" and "reportable" in Article 1 (b) (ii) in the LDC context (given the present lack of human and institutional capacity). This should apply individually to all types of mitigation options in all sectors and sub-sectors including energy production and consumption, crop production under wet condition, afforestation and deforestation, waste management, and relevant industrial processes.
- (iii) In deciding the operational meaning of "measurable", "verifiable" and "reportable" actions or their outcomes, particular attention must be given to the fixation of the reference point or benchmark against which the reduction in GHG emission has to be measured, verified and reported. For example, for putting up solar panels in a rural home, what should be the reference point, emission from kerosene lamps or alternative of grid-electricity? Furthermore, clear guideline should be given regarding whether the reductions are to be in terms of direct reduction or economy-wide reduction (taking into account linkage effects). For example, a particular technology (equipment) may be of low carbon intensity, but the manufacture process of the equipment itself may be high energy-intensive and thus highly carbon-intensive. The use of the low carbon-intensity equipment in such a situation may not in ultimate analysis lower carbon emission that much.
- (iv) Measures for regeneration of forest cover using afforestation in its 'forest land' under the principles of conservation;
- (v) Reduction of fuel wood use for cooking (which will simultaneously benefit Bangladesh in terms reduced IAP) through promotion of
 - substitution of energy sources at the household level to LPG, NG, briquettes, biogas, and waste to electricity;
 - improved stove at the household level to improve energy efficiency; and
 - promotion of woodlots in rural areas to support demand for fuel wood without affecting the formal reserve forest land.
- (vi) Improved efficiency at electricity plants through the use of more efficient technology;
- (vii) Improved consumption efficiency for electricity and other energy through the adoption and diffusion of cost-effective equipments and appliances;
- (viii) Exploration for new gas fields and reservoir management in old ones
- (ix) To put in more solar homes, and solar panels for electricity generation as she is already doing now
- (x) Reduced methane emissions from wet-rice cultivation practices without jeopardizing the target of food security and adversely affecting the livelihood of farmers;
- (xi) Improving capacity of the government, civil society, private sector, and local institutions to support the mitigation actions of the government, and
- (xii) Increased level of awareness of the people to promote conservation of forest, conservation of gas at the household level, and improve the livelihood of the local community (dependent on forests).

- (xiii) Initiate simultaneously discussion leading to a decision on technology requirement and transfer, financial support from developed countries to undertake appropriate mitigation actions by developing countries including LDCs;
- (xiv) Fixation of a global target for reducing emissions from deforestation within a defined time frame with incentives to be provided for the equivalent carbon credit through development of proper and simple methodology;
- (xv) Discussion on the role of UN and other multilateral agencies in enhancing the national mitigation action plan.

In all these mitigation actions, Bangladesh would venture only if it is demonstrated that no sizeable economic or social adverse impacts will follow [refer to Article 1(b)(vi) of BAP] in their wake.

D. Work programme Related to Adaptation under Article 1 (c) (i) to (v)

Context

In Bangladesh, weather-related natural calamities are increasing in frequency and severity. These as well as other climate related phenomenon pose severe threat to agriculture and food security, create large scale uncertainties with water availability, endanger livelihood of people while exposing them to malnutrition, disease and morbidity and also to premature death. Adaptation therefore is at the core of actions to build and nurture a climate resilient process of sustainable development. In fact, Bangladesh would like to have a protocol on adaptation within the UNFCCC to be discussed by the AWG as part of the post Kyoto regime.

The research and development activities on adaptation are still very meagre and best practices on adaptation do not cover the variety of adaptation needs. Adaptation options are also very site specific and depends on largely on the response from the stakeholders. The policies on adaptation are also not well tested and the countries may not like to commit their scant resources on adaptation in the face of uncertainties with respect to the outcome.

The clause 1(c) (i) to (v) under the Bali Action Plan provides a listing of possible principles and actions for adaptations. The principles are broad and need to be interpreted and contextualized. The work program of AWG on LCAC related to adaptation should therefore focus first on the operational interpretation of the listed principles and activities and then on the support mechanisms to enable the parties for the implementation of their assessed adaptation strategies, programmes and projects. The adaptation activities could be technological, policy based and behavioural. The discussion under this item may focus on two clusters of activities for the LDCs and SIDS.

Enhanced action on adaptation under item 1(c)

Based on the above context as well as the initial principles, the range of work program for adaptation could be clustered as follows:

- (a) Operationalisation of the activities and principles and development of guidelines and methodologies, tools etc
- (i) A host of actions and principles have been listed under 1 (c). Each of these need to be clearly understood as to their exact content and further for operationalisation, guidelines need to be developed. These are as follows:

- (ii) Development of generic guidelines for assessment of vulnerability and adaptation with predictions of likely impacts within an agreed time frame which should be in the medium range (10-15 years) and beyond; and prioritization of urgent actions taking into consideration NAPA guidelines for LDCs
- (iii) Development of methodologies and outline for risk and disaster reduction strategies
- (iv) Development of methodology to assess the role of climate change in climate-related natural disasters
- Development of guidance document for integration of climate consideration into the development planning for various sectoral climate resilient strategy within a sustainable development framework
- (vi) Development of vulnerability index criteria to assess the adaptation needs of LDCs and SIDS as well as drought and flood prone countries for preferential treatment in accessing the funds in times of need.

(b) Support programme for developing country parties in particular for LDCs and SIDs

- (vii) Setting up of an International Centre fro Research and Training on Adaptation
- (viii) National capacity self assessment and capacity building;
- (ix) Supporting the developing country parties in particular LDCs and SIDs in formulating their adaptation strategies, and associated programmes and projects to address the adaptation needs;
- (x) Support institutional and human resource capacity building for the implementation of assessed programmes and projects for meeting the adaptation needs;
- (xi) Development of new and innovative support mechanisms such as micro insurance, micro credit, weather derivatives and related other tools
- (xii) Role of different UN and other multilateral agencies in providing the required services for adaptation

Up to 2009, urgent and immediate adaptation needs of developing countries that are particularly vulnerable to the adverse effects of climate change, specially the LDC, SIDs, and countries in Africa affected by drought, desertification, and flood should be dealt along with other ongoing agenda items under UNFCC and KP.

E. Work Programme Related to Technology Transfer under Article 1 (d) (i) to (iv)

Context

Environmentally sound technology development and deployment are necessary as response to climate change. However, types of technology development and deployment will depend on future commitment of reduction of greenhouse gases, the sources of desired reduction, level of vulnerability of different countries and the sector-wide vulnerability. Technologies related to mitigation are pre-dominantly available in the developed countries. However, there are lots of examples of dumping of redundant, inefficient and possibly carbon-intensive technologies from North to South. Therefore to facilitate technology transfer and its screening before transfer from North to South or even South to South, establishment of a technology transfer and development board, shall be necessary.

It is recognized that Technology transfer concerns not simply the exports and imports of equipments but also and possibly equally, if not more, importantly the flow of experience and know-how, as well as the creation and nurturing facilities for development and adaptation of techniques. Capacity building has therefore long been identified as an essential element for technology transfer, diffusion and deployment. There is a clear felt need in this area. An overall integrated framework to enhance technology transfer may have five elements such as technology needs assessment, improving access to technology information, creating enabling environments, strengthening recipient country capacity, and institutionalising technology transfer mechanisms.

In the context of technology transfer, Bangladesh focuses on sustainable development needs with special reference to ensuring security in several key areas, GHG mitigation and adaptation to impacts of climate change. Identification and evaluation of technical means for achieving specified ends are vital in all three areas, but in the context of climate change, adaptation is the immediate need. From climate change and developmental perspective, considerations would therefore, include assessing appropriateness of the technology with priority, practices, and policy reforms that can be implemented in different sectors to reduce greenhouse gas emissions and to promote climate resilient development as well as contribute to sustainable development goals.

Assessing technologies for mitigating GHG emissions in Bangladesh would be in the energy, forestry and transportation sector. In the energy sector it would be energy (gas) exploration and reservoir management, efficiency improvement in the production, distribution and consumption of energy in general and of electricity, in particular. The general area of renewable energy development has to rely heavily on technology transfer, technology development and policies for adoption and diffusion of the technology. In forestry, afforestation and its efficient management will need new types of technology and practices. In the transportation sector, it would be mainly, efficient transport planning and overall improvement in the fuel consumption efficiency and switching to low-carbon fuels.

For adaptation, the policy focus has to be directed to the vital sectors of the economy such as agriculture, forestry, fisheries, land, human settlement, water resources, health and coastal zones. In short, the whole of Bangladesh has to be made climate resilient.

Bangladesh has an extensive research and development system in crop agriculture, livestock, fisheries, forestry, and water. There are others on housing and infrastructure development and industrial processes. Most are yet to be geared to the development and adaptation of technology suited to a regime under climate change. They need to be reoriented to the development of technology for both mitigation and adaptation in the country. Capacity development in these research organisations therefore becomes an essential issue in technology transfer and development.

Enhanced action on technology development and transfer under Article 1(d)

Considering the above, the Ad-hoc Working Group may include in its work programme the following:

- (i) Capacity enhancement of the existing research institutions for development and transfer of technology
- (ii) Development of a market for environmentally sound technology that will also include climate friendly technologies. In this process FDI along with joint ventures should be encouraged for R&D in developing countries that will be able to overcome in part the problems of technology development, deployment and diffusion;
- (iii) The work of the EGTT has been very important in the convention process to progress on the technology transfer issues. There should be a stock taking on the work of the EGTT before

making any recommendation on the revision or updating of the Technology Needs Assessment Guidelines developed by UNDP. The discussion may also include practical application of the guidelines in a few vulnerable countries with provision of resources;

- (iv) The AWG may like to discuss the possibility of discouraging transfer of carbon-intensive and inefficient industry from the North to the South including unsustainable production systems and consumption patterns and promotion of transfer of green technology in energy and industry;
- (v) The AWG may particularly consider the needs of technology for efficient energy production and consumption including exploration for primary sources of low-carbon fuels, renewable energy, forestry development and the transport sector.
- (vi) The feasibility of Establishing a Technology Transfer and Development Board (TTDB) with a clearing house mechanism to facilitate transfer may be considered;
- (vii) Identification and or development of appropriate regional centres for undertaking research and development and of appropriate modalities for North-South and South-South Cooperation for diffusion of the technologies;
- (viii) In the case of existing technologies for adaptation, the efficiency needs to be assessed. There is also a need to assess the potential to scale up of different technologies for adoption to deal with specific problems considering ecological and social circumstances. The AWG may therefore initiate a process of making an inventory (sector wise), facilitate modifications of different technologies including their scaling up, and facilitate/accelerate deployment, diffusion and cooperation on research and development of current, new and innovative technology, including win-win solutions.

F. Work Programme Related to Article 1(e) (i) to (vi)

Context

The roadmap for negotiating the post-2012 international response to climate change highlights the important role of financing to support developing country emissions reduction actions and in enhancing the ability to adapt to the impacts of climate change. Bangladesh being an LDC, has limited capacity for financing the huge tasks for facing the climate change. Her capital market and the financial system is also less developed in most countries. Further, as the issues related to climate resilience is yet to be built into the development process of the country, the financial mechanism through the national budgetary process is also underdeveloped, or rather non-existing. In this context, Bangladesh needs not simply to mitigate and adapt with the help of adequate technology and funds from the developed countries, her capacity to utilise such funds through various financial tools and mechanisms also needs to be developed. Experience also shows that the existing funding mechanisms had been rather complex and time-consuming.

Enhanced action on the provision of financial resources and investment under Article 1(e)

Against the above background of inadequate funds and underdeveloped mechanisms internationally as well as nationally, the AWG may consider the following issues for its work programme.

- (i) Development of generic guidelines for financial needs assessment for addressing adaptation needs
- (ii) Development of generic guidelines for financial needs assessment for addressing mitigation needs

- (iii) The scale of necessary funding to assist developing countries in mitigation and adaptation based on the assessed needs
- (iv) Sources of funding (including those already discussed such as a carbon tax, aviation tax, raising the percent contributed by CDM activities) that could be mobilized to generate the necessary level of funding
- (v) Prioritisation of activities for funding and the principles for such prioritisation
- (vi) Evolution of fast track procedures for easy access to funding
- (vii) Arrangements for cooperation between national banking and financial system and the flow of funds from the international and bilateral systems for refinancing, insurance and other means to help funding national activities

PAPER NO. 3: BRAZIL

SUBMISSION OF BRAZIL ON THE BALI ACTION PLAN

1. The Government of Brazil, in response to the invitation contained in decision 1/CP.13, paragraph 8, welcomes the opportunity to submit views regarding the work programme for the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA), taking into account the elements referred to in paragraph 1 of the above-mentioned decision on the Bali Action Plan (BAP).

2. Decision 1/CP.13, which established the AWG-LCA to conduct the BAP negotiations, states that it must complete its work in 2009. The outcome will be presented to the fifteenth session of the Conference of the Parties. The work programme to be developed must allow for the adequate consideration of the four building blocks that compose the BAP: mitigation, adaptation, technology development and transfer and financing,¹ and also address a shared vision for long-term cooperative action².

3. The Brazilian Government is of the view that the first meeting of the AWG-LCA should already enable an overview of all five elements, in order to assess the current views of Parties on and the potential for constructive debates and consensus around each issue. Discussion of the five elements should go on throughout 2008, so as to enable the Group to map out more efficiently a detailed programme of work for each area for the following year.

4. The AWG-LCA should make use, to the extent possible, of informal workshops³, bringing together Parties and major stakeholders, as appropriate to the specific issue, and drawing upon the expertise of relevant institutions. Such workshops should receive the appropriate support of the Secretariat.

¹ Decision 1/CP.13 (Bali Action Plan), paragraphs 1 (b) to (e).

² Decision 1/CP.13 (Bali Action Plan), paragraph 1 (a).

³ As agreed by Parties in Decision 1/CP.13, paragraph 3.

PAPER NO. 4: CHINA

CHINA'S COMMENTS ON THE IMPLEMENTATION OF THE BALI ACTION PLAN

The Bali Action Plan invited the Parties to submit to the secretariat, by 22 February 2008, their views regarding the work program for consideration by the Ad Hoc Working Group at its first session. China would like to make the following preliminary comments and observations:

1. Principles, objectives and key elements of the Convention Process

The objective of the negotiation process of the Convention is to enable the full, effective and sustained implementation of the Convention. The two-track approach negotiation processes under the Convention and the Kyoto Protocol show that the Convention and the Kyoto Protocol are the foundation of addressing climate change by the international community in the future. The principle of common but differentiated responsibilities shall be key in the negotiation process. Climate change shall be addressed in the context of sustainable development, and mitigation and adaptation shall be put on an equal footing. The following key elements shall be given special consideration in developing the Work Program of the AWGLCA:

- 1) Quantified emission reduction targets for the Annex I Parties to the Convention that are not Parties to the Kyoto Protocol, taking into account the work of the AWG of Article 3.9 of the Kyoto Protocol;
- 2) Ways and means of developing country Parties to take nationally appropriate mitigation action in the context of sustainable development, especially the support by developed countries in terms of technology transfer and funding to enhance such actions;
- 3) Vulnerability to the impacts of climate change and adaptation, challenges in developing countries, measures to help developing countries adapt to climate change, and needs in technology and funding for adaptation in developing countries;
- 4) Barriers and incentives for the transfer of technology and the provision of associated financial support and the establishment of appropriate effective mechanisms so as to enable developing countries to have access to affordable advanced climate-friendly technologies.

2. On the Work Program

In developing the Work Program, the four building blocks of the Bali Action Plan need to be dealt with simultaneously and equally. Contact groups could be established where necessary. It may be helpful to hold workshops or seminars to exchange views on issues like long-term goal and sectoral approaches. The Work Program should be designed in a way to ensure the full, effective and sustained implementation of the Convention.

3. Views on specific issues

 A shared vision for long-term cooperative actions should also include adaptation and sustainable development in accordance with Article 2 of the Convention. In developing such a vision, it is important to take into account the principles of equity and common but differentiated responsibilities, and the scientific and economic feasibility as well as the means to achieve it;

- 2) Annex I Parties to the Convention that are not Parties to the Kyoto Protocol shall undertake commitments to reduce their GHG emissions by at least 25-40% of their 1990 level by 2020 to ensure comparability with those of the Annex I Parties to the Convention that are Parties to the Kyoto Protocol that will be established by the AWG of the Kyoto Protocol;
- 3) Methodologies, verifying mechanisms, flexible mechanisms and compliance mechanism of the Kyoto Protocol shall be applicable to commitments of Annex I Parties to the Convention that are not Parties to the Kyoto Protocol,;
- 4) Mitigation actions by developing countries shall be nationally determined in accordance with their sustainable development strategies and country specific circumstances;
- 5) Mitigation actions by developing countries shall be subject to national procedures for reporting, measuring and verifying.
- 6) Developed countries shall provide technology, financing and capacity-building in a measurable, reportable and verifiable manner to enable developing countries to take national mitigation actions;
- 7) Innovative incentives shall be provided for emission reductions from avoided deforestation, conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries;
- 8) The aim of sectoral approaches or sector-specific actions is to enhance implementation of Article 4, paragraph 1(c) of the Convention, promote the development, deployment, diffusion and transfer of technology and enhance sectoral cooperative actions, instead of developing global sector-specific standards or benchmarks;
- 9) Strategies and mechanisms for adapting to climate change shall be developed to support adaption actions in developing countries and associated financing, technology and capacitybuilding shall be provided. It is important to enhance developing countries' capacity for the prevention, early-warning and proper management of disasters so as to mitigate the adverse consequences of climate change;
- 10) An international mechanism for cooperation on the R&D and transfer of technologies shall be established for the removal of obstacles to technology transfer, enhancement of cooperation on the R&D of new technologies, the provision of incentives to the R&D and transfer of technologies, the establishment of financial mechanism for the R&D and transfer of technologies, making technology transfer really happen at preferential rate, and appropriately addressing the issue of IPR;
- 11) Sufficient financing shall be provided by developed countries to address climate change. In addition to existing ODA, developed countries shall annually provide financial support of no less than 0.5% of their total GDP to support actions by developing countries to address climate change in developing countries.

PAPER NO. 5: COLOMBIA

BALI ACTION PLAN

Views regarding the work program of the Ad Hoc Working Group on Long- Term Cooperative Action under the Convention taking into account the elements to be addressed by the group.

Colombia proposes the following order of priority for the elements to be addressed by the Ad Hoc Working Group on Long- Term Cooperative Action under the Convention:

		Elements to be addressed
1	а	Mitigation actions for developed and developing countries
	b	Reducing emissions from deforestation in developing countries
2	а	Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation
	b	Enhanced action on technology development and transfer to support action on mitigation and adaptation.
	с	Enhanced action on adaptation through international cooperation to support the urgent implementation of adaptation actions.

1. a) Mitigation actions for developed and developing countries

Colombia supports the work of the Ad Hoc Working Group on Long- Term Cooperative Action under the Convention to reach an agreement on collective, comprehensive and global action. We underscore the need for developed countries to undertake and meet their mitigation commitments under the Convention, in accordance to the principle of common but differentiated responsibilities. Colombia stresses the impacts of climate change on sustainable development and the challenges posed by climate change for developing countries, in particular African Countries, Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

Therefore, in order to reach a global and comprehensive agreement for the period beyond 2012, greater progress should be made in promoting sustainable development in developing country Parties through the implementation of the commitments under the Convention, specially their commitments related to financing, technology transfer, and capacity building.

Consequently, and according to the Bali Action Plan, developed country Parties must take the lead in implementing the commitments under the Convention, through the consideration of measurable, reportable and verifiable national appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances.

On the other hand, 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.

Consequently, mitigation actions by developed country Parties will depend on the effective implementation of the commitments of the Convention by developed country Parties.

b) Reducing emissions from deforestation in developing countries

Colombia supports the development of policy approaches and positive incentives to reduce emissions from deforestation and forest degradation in developing countries, taking into account that traditional sources of funding are not enough to achieve a meaningful reduction in emissions from deforestation.

Incentives to undertake REDD measures under the UNFCCC framework should accommodate different national circumstances and levels of capacity of developing countries, and therefore should include the possibility of a wide range of scales of activities in perusing the objective of RED. The only way to assure sufficient long-term resources to support the reduction of emissions from deforestation is through market mechanisms which have proven to be effective in the past, whereas other financing approaches such as special funds have not.

Emissions from deforestation in developing countries represent about 20% of global GHG emissions. Deforestation has grave environmental and social consequences for developing countries.

2. a) Enhanced action on the provision of financial resources an investment to support action on mitigation and adaptation and technology cooperation.

Colombia highlights the need for increased financial flows for mitigation, adaptation and technology cooperation. Developed country Parties are bound by the commitments under the Convention to provide financial resources to developing country Parties. It is essential to facilitate access to developing countries to new and additional financial resources and investments, additional to official development assistance (ODA).

b) Enhanced action on technology development and transfer to support action on mitigation and adaptation.

Colombia supports the need to facilitate the development, diffusion and transfer of costeffective and affordable clean technologies to developing countries. Developing country Parties need greater access to climate-friendly technologies.

c) Enhanced action on adaptation

Colombia considerers the topic of adaptation as a matter of high importance to the national Government. Therefore, enhanced action on adaptation through international cooperation should take into account the urgent and immediate needs <u>of all developing countries</u>, in particular African Countries, Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

Colombia is highly vulnerable to climate change. This is due to our extensive coastal areas, the amount of population living along these coasts and the fragility of our ecosystems, including high mountain ranges and tropical rain forests. Coastal and insular areas in Colombia are already experiencing impacts caused by global warming.

Colombia supports international cooperation to support the urgent implementation of adaptation actions, including through vulnerability assessments, prioritization of actions, financial needs

assessments, capacity building and response strategies, integration of adaptation actions into sectoral an national planning, specific projects and programs, means to incentivize the implementation of adaptation actions and additional incentives for adaptation in developing countries.

We highlight the need of increased financial flows and additional incentives for adaptation in developing countries, in particular through the flexibility mechanisms of joint implementation and emissions trading.

PAPER NO. 6: EGYPT

EGYPTIAN SUBMISSION FOR AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION

Introduction

The Conference of the Parties at its thirteenth session invited Parties to submit their views on the work programme of Ad Hoc Working Group on Long-term Cooperative Action (FCCC/CP/2007/L.7/Rev.1). Egypt welcomes the opportunity to submit the views on this important Ad Hoc which established at COP 13.

Climate change is one of the most important global issues facing us today. Egypt recognizes "that climate change is a serious challenge that has the potential to affect every part of the globe" There is no doubt that dealing with the issue of climate change has started to take a new turn after the issuance of the Intergovernmental Panel on Climate Change IPCC for its Fourth Assessment Report, identified the scientific consensus that climate change is a reality due to anthropogenic development activities, since the industrial age, which pays all the nations of the world, including Egypt, to stand side by side to deal with the threats to our planet Earth, which brings us together and makes us have a responsibility to future generations in our day decisions in accordance with the principles of common, but differentiated responsibilities.

Egypt is one of highly vulnerable countries in the world due to it's sensitive conditions as it is the most arid country in the world and due to the population density in the Nile Delta and valley.

Climate Change will have obvious impacts on all activities, in terms of Agricultural productivity, water availability and Biodiversity. The major threat resulting from sea-level rise on the Delta, which will cause the displacement of millions of those density populated region, in addition to the loss of thousands of acres of fertile agricultural land.

Recalling, Bali outcomes which states that voluntary responsibility for all developing countries in mitigation, our interpretation of this responsibilities should be seen against the fact that there are different levels of development within the developing countries. We therefore call for the inclusion of criterion of income level and growth in the issue of climate change with its two dimensions; mitigation and adaptation.

From a conceptual point of view, we believe it is useful to address the ongoing negotiations under the main areas: adaptation and mitigation, in terms of criteria and impact, as well as both the qualitative and quantitative dimensions in equal and balanced way. For example, the quantitative dimension in mitigation is reflected in the volume of emissions, while the adaptation in the size of the population affected by climate change and the level of damage in a country. On the other hand the qualitative dimension in mitigation is seen in the type of emissions, how to eliminate it, and the mechanisms able to furnish alternatives to fossil fuels i.e. new and renewable energy, the role of clean technology, and the funding needed in light of the fact of private sector ownership, while it is reflected in mitigation in urgency and vulnerability. In this context, we would like to highlight once again what has already been announced by, the Egyptian Foreign Minister H.E. Mr. Ahmed Aboul Gheit during the high-level event in September 2007 where he called for the submission of a list of the most vulnerable countries affected by climate change. We in this context suggest to focusing on countries with deltas threatened by inundation of sea water, oceans in view of urgency of this matter and its serious impact on the population and development course of those countries.

Egypt looks forward to engaging proactively in this important discussion.

Working format of the Dialogue

In order to effectively address global climate change, we need to ensure "the widest possible cooperation and participation in an effective and appropriate international response". The Dialogue must be guided by this overall aim.

Climate change covers a broad range of interrelated issues, none of which should be seen in isolation when discussing long-term cooperative action. We therefore suggest structuring discussions so as to make it possible to consider a range of issues at each meeting under some overall headings.

We suggest that at least a part of the first workshop should be used to exchange views on the organisation of the work within the Meetings. We believe that a plenary type meeting should be used as the main format of the Ad Hoc. At a later stage of the Meetings, it may be logical to elaborate on specified issues in smaller groups.

PAPER NO. 7: ICELAND

BALI ACTION PLAN

Views regarding the work programme for the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention taking into account the elements to be addressed by the group

Iceland welcomes the launch of the Ad hoc Working Group on Long-Term Cooperative Action under the Convention, and its programme of work towards forging a future global agreement on climate change. A future agreement should build on the UNFCCC and the relevant and useful key aspects of the Kyoto Protocol, and it should take full advantage of new knowledge and past experience – including the 4th Assessment Report of the IPCC, key economic and financial analyses, and relevant external processes – so as to develop an instrument that is a more focussed and effective global response to the challenge of climate change than the present regime. Following are views on some of the elements of the work programme for the AWG-LCA.

A shared vision for long-term cooperative action

Iceland is of the view that a future climate agreement should be as comprehensive as possible. This means that it should aim to include all major sources and sinks of greenhouse gases, and that it should be truly global in scope. It should include all major emitters in a meaningful way, and it should be guided by the provisions and principles of the UNFCCC, as outlined in paragraph 1 (a) of the Bali Action Plan. It should be flexible in accounting for different capabilities and national circumstances in a transparent manner, but it needs to be rigorous in its scientific and methodological underpinning, and in its focussing on the ultimate objective of the Convention.

The identification of a common long-term goal is a priority task of the AWG-LCA. The 4th Assessment Report of the IPCC makes it easier than before to establish a relationship with some level of confidence on the connection between emission pathways, atmospheric GHG concentrations and temperature increase. Iceland has stated its view that a goal of limiting global average temperature increase to not more than 2°C above pre-industrial levels is desirable. Iceland's current climate change strategy includes a goal for its own net GHG emissions to be reduced by 50-75% by 2050.

As a general rule, efforts by Parties should be comparable in relation to their capabilities and social and economic conditions. The establishment of key indicators for guidance in this regard would be helpful, to increase transparency and inspire trust.

Enhanced action on mitigation of climate change

A new agreement should spell out the general legal, institutional and framework for a global response to climate change, and it also needs to have a practical approach, and provide guidance and incentives for action in key areas. This would include strengthened efforts in, inter alia, the areas of technology development and transfer, renewable energy, deforestation, carbon sinks and finance. It would also include a thorough exploration of sectoral approaches and sector-specific actions, where coordinated efforts by governments, intergovernmental agencies and business and industry could lead to quick and concrete gains in emission reduction.

Iceland supports the work in reducing deforestation and forest degradation in developing countries, and sees it as an important part of a future agreement. In principle, sinks should be included as well as sources in a mitigation regime. The agreement should treat land use and forestry in a holistic manner, while ensuring the scientific and methodological soundness of accounting for different activities in this

regard, so as preserve the environmental integrity of the climate regime. Iceland wants to see wetlands covered in a new agreement, as there are indications that drained and disturbed wetlands are a source of significant GHG emissions, that can be halted or reversed by wetland restoration, with significant cobenefits on biodiversity, water regulation etc. Carbon capture and storage (CCS) is also a promising technology, that should be considered.

Iceland has advocated the exploration of so-called sectoral approaches in mitigating climate change. The reason for this is partly the increased globalization of economic activity, meaning that business and industry are increasingly mobile and independent of governments in their decision-making. A regime that encourages cooperation with business and industry, and concrete mitigation projects within key GHG-emitting sectors, is therefore more likely to lead to real results. Sectoral action on a regional or global scale that aims to increase carbon efficiency, transfer climate-friendly technology and set up incentives to clean up poorly performing installations, can be a major factor in reducing emissions in an effective and efficient manner. Perhaps the major barrier to such sectoral projects is that they are seen as complex in their arrangement, and there are various proposals on how they could be implemented. Early steps in this regard could be to identify key sectors to be examined, and set up benchmarks or standards in these sectors that would, inter alia, help to identify their mitigation potential and targets. A second step could be to set up a pilot sectoral project, to explore the role of such sectoral arrangements within the global climate regime.

Iceland supports enhanced use of flexible mechanisms and market-based mechanisms. A small party like Iceland can be especially prone to fluctuations in emissions; for example the addition or departure of a single big emitting project can have major influence on Iceland's commitments. Access to a global carbon market can help small parties to deal with such fluctuations, and in general to improve efficiency and cost-effectiveness of mitigation actions.

Enhanced action on adaptation

Adaptation will become an increasingly important strategy in dealing with climate change, as predicted changes in temperature, precipitation patterns, sea level etc. will take effect. Vulnerability to climate change is closely connected to the overall resilience of each country and social and economic development. Efforts on adaptation by the AWG-LCA therefore need to be coordinated with efforts by other multilateral bodies and stakeholders, as is noted in paragraph 1 (c) (v) of the decision. One such body would be the UNCCD, which could help coordinate action in countries in Africa affected by drought and desertification. Iceland supports a focus of efforts on developing countries that are especially vulnerable to climate change, including SIDS and LDCs, as well as drought-prone areas in Africa.

Enhanced action on technology development and transfer

Iceland considers the development and transfer of climate-friendly technology as a crucial element in tackling climate change in the context of sustainable development. It is important to identify and tackle technical, legal and economic barriers to technology transfer where they exist. It should, however, be pointed out that in some climate-friendly technologies there are few barriers of this kind, while a key obstacle is the lack of capacity to utilize such technologies, as well as limited awareness of available climate-friendly options among decision-makers in countries and financial and development institutions. Also, it should be noted that the IPCC notes in its Fourth Assessment report that the intensity of R&D in crucial sectors, including energy, has hardly increased in the recent past, and certainly not as much as could be expected given the urgent challenge of climate change; ways to measure and enhance R&D in climate-friendly technology could be addressed by the AWG-LCA.

Enhanced action on the provision of financial resources and investment

The issue of finance is crucial in a future climate agreement. The work of the AWG-LCA should make full use of newly available information on financial aspects of climate mitigation and adaptation, including the Fourth Assessment of the IPCC, and the 2007 UNFCCC report on investment and financial flows. Iceland will use the period of work of the AWG-LCA to re-evaluate its financing of climate affairs with regard to both domestic and international action, with a view to significantly enhance it as a contribution to a strengthened international climate agreement. Special attention must be given to the issue of stimulating private investment and financial flows, especially in channeling investment in energy and other key sectors to climate-friendly activities.

PAPER NO. 8: INDIA

GOVERNMENT OF INDIA SUBMISSION ON BALI ACTION PLAN WORK PROGRAMME (DECISION –/CP.13)

The most important aspects of mitigation are binding GHG reduction commitments post 2012 by Annex I Parties. These are being discussed separately in the Adhoc Working Group (AWG) under Kyoto Protocol, which also has a December 2009 deadline. These should be pursued vigorously and be independently adopted at CoP-15/MoP-5.

As regards the Bali Action Plan, all the building blocks are equally important and inter-related. There can be no closure in any one of them without overall agreement. Therefore reports or any documents must be negotiated, square brackets used for alternate propositions, in the case of unresolved issues and any text emanating from a Session of the AWG should be negotiated.

Any requirement for inputs whether from other parts of the UN system or from business and other group or otherwise, should be decided in the AWG.

Adaptation is critical and should be focused on priority.

PAPER NO. 9: INDONESIA

Indonesia's Submission Regarding Decision-/CP.13 on the work program of the Ad Hoc Working Group on Long Term Cooperative Action under the Convention (AWG)

Legal basis

Paragraph 8 of the decision states that it "invites Parties to submit to the Secretariat, by 22 February 2008, their views regarding the work programme, taking into account the elements referred to in paragraph 1 above, to be compiled by the Secretariat for consideration by the group at its first meeting."

Key issues

The Government of Republic of Indonesia views that the two year negotiation will discuss key issues that need to be crafted for an agreement on stronger international action on climate change. The key issues encompass the following:

- Measurable, reportable and verifiable nationally appropriate mitigation commitments, including quantified emission limitation and reduction objectives, by all developed countries;
- Mitigation actions by developing country Parties in the context of sustainable development, supported by technology and financing in a measurable, reportable and verifiable manner;
- Actions on adaptation to the adverse impact of climate change and promote climate-resilient development;
- Cooperative actions to mobilize technology and financing to support mitigation and adaptation actions.

The work program

The first meeting of the AWG on Long-term Action will be held from 31 of March to 4 April 2008. At this meeting, the AWG needs to establish work program in order to conclude the negotiations by 2009. It is important, however, to underline the need to set up an effective mechanism as soon as possible to ensure that measurable, reportable and verifiable assistance is provided to the developing countries with regard to financial resources, technology and capacity building. Therefore, it is important that the work program of the AWG will include discussions that clarify further the agreed terms in the Bali Action Plan such as measurable, verifiable, comparability of efforts and nationally appropriate mitigation actions.

With regard to paragraph 1 (b) (i) on mitigation commitments or actions by developed countries, the discussion should focus on the deep emission cuts through quantified emission limitation and reduction objectives. Policies and measures aimed at reducing emission need to be strengthened. This commitments or actions need to be measurable, reportable and verifiable under the Convention. In this regard, commitments or actions by developed countries can be reported through their national communications and measured and verified (subject to the agreement on what we mean by measurable and verifiable).

On mitigation actions by developing countries, paragraph 1 (b) (ii), the discussion needs to focus on how mitigation actions be taken in the context of sustainable development and how adverse impact of mitigation measures do not result in negative impact of economic growth and social development. The discussion needs to include how these actions that are supported by technology, financing and capacity-building can be measured and verified. The sectoral approach could be one option in achieving emission reduction in the developing countries, through the Montreal Protocol Scheme as an example in success story on environmental financing (ODS phase out program) which needs to be explored in order to be applied appropriately under the UNFCCC. However, real implementation in the fields needs involvement and approval from implementing institutions at national level.

On adaptation, discussion should focus on the urgent adaptation needs which could include risk management and reduction strategies which could promote climateresilient development. Financing aspect of the urgent needs of adaptation has also to be thoroughly addressed. The tools and capacity for adaptation modeling and scenario in developing countries should be enhanced with the intention of having suitable and applicable adaptation strategies. In order to minimize the risks resulted from impact of climate change, the approach should be given on the sectoral point of view; taking into account nationally identified key sectors on adaptation, for instance marine and coastal, infrastructure, agriculture, water resource, and human health.

With regard to financing and technology, these two elements have to be discussed comprehensively since these can help bring together developed and developing countries to craft global approach to address climate change. Under the Convention, developed countries have commitments for transfer of technology and financial resources (Article 4.7 of the Convention). To help developing countries to do more, recognition must be given that efforts on climate friendly technology and finance is a way of creating investment opportunities. Cooperation on research and development and ways to enhance the deployment, diffusion and transfer of environmentally sound technologies —including the accessibility of technology needed by developing countries— and the possibility of having a shared IPRs (intellectual property rights), could also be added into the work program of the AWG.

On financing mechanism, discussion on means to support and enable actions by developing countries in a measurable, reportable and verifiable manner, including market-based elements, public-private sector financing and facilitating polities that promote financing and technological cooperation can be addressed.

PAPER NO. 10: MALDIVES ON BEHALF OF THE LEAST DEVELOPED COUNTRIES

BALI ACTION PLAN REGARDING WORK PROGRAMME OF THE AD-HOC WORKING GROUP

Maldives on behalf of LDCs welcomes the decision "Bali Action Plan" by the Conference of the Parties at the Thirteenth Session (CoP13/MoP3) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Bali, Indonesia. As a response to the decision, Maldives welcomes the opportunity to submit its initial views regarding the work programme of the Ad-hoc Working Group, taking into account the elements referred to in paragraph 1 of the Bali Action Plan. It also reaffirms its willingness and support to work with the Ad-hoc Working Group on long-term cooperative action, until 2009 to complete its work and present the outcome of its work to the Conference of the Parties for adoption at its fifteenth session.

To accomplish the task, it is very important to sequence the work based on the agreed action plan. What is therefore required is an agenda that identifies the areas that need to be further clarified, the work that needs to be done and how they will be done.

The first and foremost task before AWG shall therefore be to set the emission reduction target to facilitate formulation of comprehensive plan of actions required under different building blocks including financial requirements.

Setting Reduction Target/Shared Vision

LDCs appreciate the recognition by the parties that deep cuts in global emissions will be required to achieve the ultimate objective of the convention. It has emphasized the urgency to address climate change as indicated in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). The urgency referred to Technical Summary, pages 39 and 90, and Chapter 13, page 776 of the Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change which is broad in nature and need discussion to set reduction target.

The IPCC predicted that the global mean temperature will increase above pre-industrial at equilibrium, using "best estimate" which ranging from 2.0 to 2.4 where peaking year for CO2 is 2000-2015; and 4.9 to 6.1 where peaking year for CO2 is 2060-2090. The report also suggested that under most equity interpretations, developed countries as a group would need to reduce their emissions significantly by 2020 (10–40% below 1990 levels) and to still lower levels by 2050 (40–95% below 1990 levels) for low to medium stabilization levels (450–550ppm CO2-eq). Under most of the regime designs considered for such stabilization levels, developing-country emissions need to deviate below their projected baseline emissions within the next few decades.

Considering very wide range of temperature change and peaking year for CO2, Bangladesh proposes that the Work Programme of the Ad-hoc working group may include in its work programme to:

- initiate a discussion and agree on global mean temperature increase and peaking year for CO2 for future climate regime
- determine global mitigation targets for post Kyoto climate regime

Future scale of adverse impacts of climate change will depend on scale of reduction of greenhouse gas emission, therefore efforts should be made to agree that global mean temperature should not increase from 2.0 to 2.4 and corresponding peaking year for CO2 should be 2000-2015.

Enhanced national and international action on mitigation

The Bali Action Plan decides measurable, reportable and verifiable nationally appropriate mitigation commitments or actions including quantified emission limitation and reduction objectives, by all **developed country Parties**. The Ad-hoc Working Group may include in its work programme to:

- to explore different means and ways to achieve quantified emission limitation and reduction.
- initiate a process to take inputs from the AWG working under Article 3.9 of the Kyoto Protocol.
- Discussion on measurable, reportable and verifiable mitigation commitments or actions is also necessary. Experiences of two branches of compliance committee under Kyoto Protocol may also be useful in designing means of measurement and verification, and reporting modalities.

It may be noted that as part of Non-Annex 1 countries LDCs so far has not been required to take actions specifically aimed at mitigation, although actions such as energy efficiency continued to be part of national policy for other valid reasons. Now that LDCs as all other developing countries, have to do their bit as decided in COP 13 in the Bali Action Plan, in the global effort for lowering GHG emission, this must not compromise LDC's right to growth and poverty eradications in the context of sustainable development.

At the same time while the differing national circumstances between developed and developing countries have been acknowledged in Article 1(b)(v), vast differences also exist between many of the developing countries, particularly the large ones and the LDC's. Such large developing countries with large economies and resource and institutional capability to take mitigation actions can not and should not be equated with the LDCs even when all nations are required to lower GHG emission.

Considering the above context for the **developing country Parties**, the Ad-hoc Working Group may include in its work programme to:

- establish a principle of differentiated actions for LDCs within developing countries particularly in respect of institutional and human resource capacity, access to technology and capability to generate financial resource for mitigations.
- establish criteria's for LDCs to participate in win win mitigation actions without compromising theirs energy and livelihood security.
- consider types of actions those could be carried out by developing country parties in general for contributing to reduction of greenhouse gases at global level and at the same time can promote sustainable development.
- initiate discussion leading to a decision on technology requirement and transfer, financial support from developed countries to undertake appropriate mitigation actions by developing countries.

Apart from these, the following elements could also from part of the work programme

- Prioritization of specific sectors for mitigation actions and assessing the technological needs and means of cooperation in between Parties
- Tax exemptions for mitigation equipment, including in their transfer from one country to another country
- Discussion on fixation of global target for reducing emissions from deforestation for a defined time frame with incentives to be provided for the equivalent carbon credit through development of proper methodology
- Discussion on the role of UN and other multilateral agencies in enhancing the national mitigation action plan.

Enhanced action on adaptation

In view of the natural calamities that are increasing in frequency and intensity, adaptation to climate change is at the core in the action programme for implementation of UNFCCC for all LDCs.

The research and development on adaptation are still very meagre and best practices on adaptation do not cover the variety of adaptation needs. Adaptation options are also very site specific and depends on largely on the response from the stakeholders. The policies on adaptation are also not well tested and the countries would not like to commit their scant resources on adaptation in the face of the time old tradition and practices and also the uncertainties with respect to the outcome.

The Bali Action Plan in this section provides a listing of possible actions for adaptations. The activities listed in this section are broad and need to be interpreted and contextualized. The work program of AWG on adaptation should therefore focus first on the interpretation of the listed activities and then on the support mechanisms to enable the parties for the implementation of their assessed adaptation strategies, programmes and projects.

For adaptation, the policy focus has to be directed to the vital sectors of the economy such as agriculture, forestry, fisheries, land, human settlement, water resources, and coastal zones. In short, the LDCs and SIDS will have to be made climate resilient.

The adaptation activities could be technological, policy based and behavioural. The discussion under this should focus on these clusters of activities and for the SIDS and LDCs whose economies are very fragile to adapt to climate change.

Considering the above, the range of work program could be clustered as follows:

- a. Interpretation of the causes and effects of impacts and knowledge accumulation.
 - (i) discussion on the interpretation of listed activities including establishment of a knowledge based adaptation research centre to serve the needs of vulnerable countries.

- b. Development of guidelines and methodologies, tools etc.
 - Development of generic guidelines for assessment of V & A with predictions of likely impacts in agreed time series and prioritization of urgent actions taking into consideration of NAPA guidelines for LDCs
 - Development of generic guidelines for financial needs assessment for addressing adaptation needs
 - Development of methodologies and outline for risk and disaster reduction strategies
 - Development of methodology to assess attribution of climate change in climate induced natural disasters
 - Development of guidance document for integration of climate consideration into the development planning vis a vis climate resilient strategy
 - Development of vulnerability index criteria to assess the adaptation needs of LDCs, SIDS and African drought and flood prone countries for preferential treatment in accessing the funds in the future climate regime
- c. Support programme for developing country parties in particular for LDCs and SIDs
 - National capacity self assessment and capacity building.
 - Supporting the developing country parties in particular LDCs and SIDs in developing their assessed adaptation strategies and in formulating programmes and projects to address the adaptation needs.
 - Supporting the implementation of assessed programmes and projects for meeting the adaptation needs.
- d. Financial mechanism to support the implementation of activities listed in 'C'
- e. Development of new and innovative support mechanisms such as micro insurance, micro credit, weather derivatives and related other tools
- f. Role of different UN and other multilateral agencies in providing the required services in B to E above

Up to 2009, urgent and immediate adaptation needs of developing countries that are particularly vulnerable to the adverse effects of climate change, specially the LDC, SIDs, and countries in Africa affected by drought, desertification, flood can be dealt along with other ongoing agenda items under UNFCC and KP.

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

Environmentally sound technology development and deployment are necessary as response to climate change. However, types of technology development and deployment will depend on future commitment of reduction of greenhouse gases, and level of vulnerability of different countries. Technologies related to mitigation are pre-dominantly available in the developed countries. However, there are lots of examples of dumping of redundant technologies from North to South. Therefore to facilitate technology transfer and its screening before transfer from North to South or even South to South, establishment of a technology transfer and development board, shall be necessary.

It is recognized that Technology transfer concerns the flow of experiences, know-how, and equipment between and within countries. Capacity building has long been identified as an essential element for

technology transfer, diffusion and deployment. There is still a clear need on this area. Technology needs is one of the five key elements of an overall integrated framework to enhance technology transfer, together with improving access to technology information, creating enabling environments, strengthening local capacity, and instituting technology transfer mechanisms.

Assessing technologies for mitigating GHG emissions in LDCs would be in the energy and transportation sector. In the energy sector it would be energy exploration technology, be it gas or coal or renewable sources of energy and efficiency improvement in the production and distribution of electricity. In the transportation sector, it would be mainly, efficient transport planning and overall improvement in the fuel consumption in this sector.

On the other hand, most of the technologies for adaptation already exist. Their efficiencies need to be assessed. In some cases, modification would be necessary. There is also a need to assess potential of scaling up of different technologies for adoption to deal with specific problems considering ecological and social circumstances.

Considering the above, the Ad-hoc Working Group may include in its work programme to:

- take a stock taking on the work of the EGTT before making any recommendation on the revision or updating of the Technology Needs Assessment Guidelines developed by UNDP. The discussion may also include practical application of the guidelines in a few vulnerable countries with provision of resources.
- initiate discussion on banning transfer of polluting industry from the North to the South including unsustainable production systems and consumption patterns and promotion of transfer of green technology in energy and industry.
- Establish Technology Transfer and Development Board (TTDB) with clearing house mechanism to facilitate transfer.
- Identification and or development of appropriate regional centres for undertaking research and development and development of appropriate modalities for North-South and South-South Cooperation for diffusion of the technologies.
- assess the effectiveness of existing adaptation technologies and making an inventory (sector wise).
- facilitate modifications of existing adaptation technologies including their scaling up.
- facilitate/accelerate deployment, diffusion and cooperation on research and development of current, new and innovative technology, including win-win solutions.

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

The roadmap for negotiating the post-2012 international response to climate change (the so-called Bali Roadmap) highlights the important role of financing to support developing country emissions reduction actions and in enhancing the ability to adapt the impacts of climate change.

As global efforts focus on implementing the financing aspects of the Bali Roadmap, several critical questions arise, including:

- What is the Scale of necessary funding to assist developing countries in mitigation and adaptation?
- What sources of funding could be mobilized to generate the necessary scale?
- What would the funding be used for? How would this be decided?

Providing answers to each of these questions (and others) will be crucial as the international community develops a post-2012 developing country mitigation and adaptation financing framework.

The AWG may therefore include in its work programme to:

- assess the scale of funding necessary to assist developing countries in mitigation and adaptation.
- find out innovative ways to generate the required scale of funding.
- evolve appropriate financial mechanism for meeting adaptation needs, taking into consideration of the vulnerability scale for adaptation.
- evolve appropriate financial mechanism for meeting mitigation needs.
- evolve fast track procedures for easy access to funding
- Clarify positive incentives for developing country parties for both mitigation and adaptation and evolve appropriate mechanism.

Recent investment of hundreds of millions by developed countries in climate adaptation measures in their own countries and reserving potential billions of dollars to protect themselves will further widen the gap between North and South. There should be a fair balance between investments in developed countries to deal with climate change and contribution to adaptation funding for the most vulnerable people in the South.

Timetable, structure and coordination:

In LDCs view, the work of 2008 should focus on reaching to the common understanding of the options on the table and their scope, for their negotiation as a package in 2009. The work in 2008 should culminate in stock-taking exercise at Poznan to review progress and define what remains to be done in the negotiations of 2009. Throughout 2008, progress will have to be achieved on each of the four building blocks and more importantly on the overarching vision of the goal for emission reductions.

PAPER NO. 11: MAURITIUS

VIEWS OF MAURITIUS ON BALI WORK PROGRAMME

The following are some of the views of Mauritius on the work programme, as invited by paragraph 8 of the Bali Action Plan.

1. Summary. We recommend greater focus on the threat of abrupt climate change, including from ice melt, where the "tipping point" for the resulting catastrophic sea-level rise may be as close as ten years; on immediate climate mitigation strategies that can produce near-term mitigation to avoid this and other tipping points for abrupt changes, in order to get a fast start that complements mid and long-term strategies; on the need to disaggregate the overall climate change problem by breaking it down into smaller parts, including those that can be addressed immediately, as has been done successfully under the Montreal Protocol on Substances that Deplete the Ozone Layer; on the need to focus additional effort on immediate adaptation funding and technical assistance; and on the need to address sustainable production and consumption.

With the exception of adaptation, these issues were largely absent from the formal negotiations in Bali, although several Parties, including Mauritius, the Federated States of Micronesia, Mauritania, Argentina, Sweden, and the United States, presented a side-event on the lessons of the Montreal Protocol for climate negotiators, noting that the ozone treaty was the most successful environmental treaty and, to date, the most successful climate treaty as well. The Montreal Protocol is responsible for mitigating climate change by 11 billion tons of carbon dioxide equivalent per year from 1990 to 2010, and delaying climate change by up to 12 years, which compares favorably with the Kyoto Protocol's climate mitigation goal of one billion tons of carbon dioxide equivalent per year below 1990 levels.¹

2. Additional focus is needed on abrupt climate change to avoid fast approaching "tipping points." The tipping point for abrupt, nonlinear, and irreversible climate change from the loss of Arctic, Greenland, and/or Antarctic ice melting and/or disintegrating, which will cause catastrophic sea-level rise, may be as close as ten years away.² Other tipping points for abrupt climate changes may be even closer, according to a new study in the Proceedings of the National Academies of Science published 12 February 2008.³

In January 2008, other new evidence showed that the ice sheets in the western Antarctic are being lost at a much faster rate than previously observed, and that the oceans are becoming saturated with carbon dioxide and absorbing less carbon dioxide than before—leaving more in the atmosphere to warm the Planet.

¹ See http://www.igsd.org/ (select PowerPoint presentations from Bali seminar on lessons of Montreal Protocol for climate negotiations); Guus J. M. Velders, *et al.*, *The Importance of the Montreal Protocol in Protecting Climate*, 104 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 4814 (2007); and Donald Kaniaru, et al, *Frequently Asked Questions: Strengthening the Montreal Protocol by Accelerating the Phase-Out of HCFCs at the 20th Anniversary Meeting of the Parties*, in Donald Kaniaru, Ed., THE MONTREAL PROTOCOL: CELEBRATING 20 YEARS OF ENVIRONMENTAL PROGRESS – OZONE LAYER AND CLIMATE CHANGE (Cameron May 2007).

² Dr. James Hansen, *Scientific reticence and sea level rise*, Environ. Res. Lett. 2 (2007); Committee on Abrupt Climate Change, *Abrupt Climate Change: Inevitable Surprises*, National Academy Press, Washington, D.C., 2003; Peter Schwartz & Doug Randall, *An Abrupt Climate Change Scenario and Its Implications for United States National Security* (2003); and Chris Abbott, Paul Rogers, and John Slobada, *Global Responses to Global Threats: Sustainable Security for the 21st Century*, Oxford Research Group, June 2006.

³ See e.g., Timothy Lenton, Hermann Held, Elmar Kriegler, Jim Hall, Wolfgang Lucht, Stefan Rahmstorf, & Hans Joachim Schellnhuber, *Tipping elements in the Earth's climate system*, 105 PROC. OF THE NAT'L ACAD. OF SCI. 6 (Feb. 12, 2008).

The Intergovernmental Panel on Climate Change, which is the primary reference for most Parties in the climate negotiations, does not include this latest scientific evidence about abrupt climate change. The IPCC only includes previously published material, and in the case of the Fourth Assessment, released last year, it only includes material published before the middle of 2006. Dr. Rajendra Pachauri, head of the IPCC, recently said the science body's next report should look at the "frightening" possibility that ice sheets in Greenland and Antarctica could melt rapidly at the same time.⁴ But if this takes the IPCC the usual four years for its report, it will be too late.

3. The IPPC should be supplemented with an annual update. One of the lessons from the successful Montreal Protocol is that the IPCC needs to be supplemented by a faster-moving assessment process that is able to rely on the latest scientific studies, including those that have not yet been formally published. The Montreal Protocol does this through its annual assessment process, including the Technology and Economic Assessment Panel, to keep the Parties to that treaty apprised of the latest developments in the science, technology, and economics of ozone depletion. A similar fast-moving process for climate change should be started immediately, and should address abrupt climate change as a priority within the next three months.

4. Additional focus is needed on immediate near-term climate mitigation strategies. The current scientific evidence about abrupt climate change and sea-level rise warrants immediate near-term climate mitigation strategies, to keep the Planet from reaching the ten-year tipping point for abrupt and irreversible climate change, including catastrophic sea-level rise. This is critical, even as the world simultaneously pursues longer-term climate mitigation strategies. We must succeed with both. Unless we succeed with near-term mitigation, we won't have the opportunity to get to the long-term solutions we need—governments of the world will be practicing triage, as their populations retreat to higher ground.

Low-lying island and coastal States cannot afford to wait the many years it will take for the next IPCC report, nor the many years it will take to negotiate, ratify, and implement the post-2012 climate treaty. The negotiations alone are scheduled to take two-years. Ratification will take several more years, and implementation even longer. For comparison, the Law of the Sea treaty took ten years to negotiate, and another ten to ratify. Action is needed now, and action now will yield dividends that will lower the cost in the long run. This is one of the findings of the Stern Report.

4. There is a need to identify and implement on a priority basis the most effective and efficient near-term climate mitigation strategies that are available now. Perhaps the most effective and efficient near-term climate mitigation strategy is to further strengthen the Montreal Protocol, a treaty that has done many times more to mitigate climate change than the Kyoto Protocol seeks in its 2008-12 commitment period. The side-event Mauritius co-sponsored in Bali noted that from 1990 to 2010 the Montreal Protocol already has delivered climate mitigation equivalent to 135 billion tons of carbon dioxide, delaying climate change by up to 12 years. When early voluntary efforts that started in 1974 are included, along with early national measures, reducing ozone depleting chemicals has delayed climate change up to 41 years, and solved a part of the climate problem that otherwise would have nearly equaled today's contribution from carbon dioxide.⁵

⁴ Marc Kaufman, *Escalating Ice Loss Found in Antarctica: Sheets Melting in an Area Once Thought to Be Unaffected by Global Warming*, Washington Post, January 14, 2008, page A01 ("The new finding comes days after the head of the Intergovernmental Panel on Climate Change said the group's next report should look at the 'frightening' possibility that ice sheets in Greenland and Antarctica could melt rapidly at the same time. 'Both Greenland and the West Antarctic ice sheet are huge bodies of ice and snow, which are sitting on land,' said Rajendra Pachauri, chief of the IPCC, the United Nations' scientific advisory group. 'If, through a process of melting, they collapse and are submerged in the sea, then we really are talking about sea-level rises of several meters.'").

⁵ See Velders, et al., cited in note 1.

Based on proposals submitted by Mauritius and other Parties to the Montreal Protocol last year, the Parties agreed to strengthen the treaty in a way that will produce climate mitigation of 15 to more than 20 billion tons of carbon dioxide equivalent, which compares favorably to the mitigation Kyoto seeks. This is the first time that all States of the world explicitly accepted mandatory and enforceable climate mitigation targets, including China, India, and the U.S., in a treaty that all Parties consider fair.

Several Parties, including Mauritius, are now focusing on the "banks" of ozone- and climate-damaging chemicals that are leaking from old refrigerators, air conditioners, and other products and equipment we throw away ever day. The Montreal Protocol's assessment panel calculated that 7.4 billion tons of carbon dioxide equivalent will be emitted from banks by 2012 alone, with more after that.

Other near-term strategies include improving energy efficiency, improving forest management, and reducing methane and black carbon, or soot (soot is now accelerating the global ice melt when it washes out onto snow and ice and changes their albedo). The European Union, the United States, and Japan all have mitigation strategies that can be immediately expanded and accelerated.

5. The lessons of the Montreal Protocol need to be studied. In addition to these critical near-term climate mitigation strategies under the Montreal Protocol, that treaty also has important lessons for climate negotiations, including the need to disaggregate the overall climate problem into specific sources, sinks, and sectors, so that the we can tailor more effective governance systems, as Montreal has done for the 96 chemicals it regulates in more than 240 industry sectors. The Montreal Protocol Secretariat should be requested to do a report on relevant lessons, drawing on the side-event in Bali, and present a draft at the first meeting of the working group in March/April, with a final report by June 1, 2008.

6. Adaptation needs immediate and expanded funding. While some initial progress was made in Bali on the issue of adaptation, there is an urgent need for immediate and expanded funding for low-lying island and coastal developing countries, along with associated technology and technical assistance. There has been even less progress in mainstreaming adaptation within national development strategies, and it is important to support the scientific community to become more actively engaged in order to provide easily accessible climate risk information. Such information should put current and future climate in the perspective of national development priorities. Donors should then be encouraged to provide incentives for developing country governments to take particular adaptation actions.

7. There is a need to focus more on sustainable consumption and production. The need to stabilise atmospheric CO2 concentrations at about 550 ppm, or perhaps lower, is generally considered to have drastic implications for our lifestyles. Engaging in the complex area of lifestyle and behavioural change is going to be essential. Unsustainable patterns of consumption and production are a primary cause of climate change and lead to other ecological and social challenges. The carbon emissions generated from our lifestyles are greatly significant, and are increasing. Hence, one of the key responses to protect the climate and achieve sustainable development is to promote sustainable consumption and production. Many countries have instituted individual policies to promote sustainable consumption and production. However, these actions are often neither coherent nor driven by an integrated programme. All countries must develop integrated national programmes on Sustainable Consumption and Production with the backdrop of climate change mitigation and sustainable development. We are doing so in Mauritius, with the assistance of UNEP. We must ensure that all countries develop action plans to change consumption and production and production and production patterns as a long-term effective strategy to combat climate change.

8. Conclusion. Thank you for the opportunity to submit our views on the work programme. We look forward to the opportunity to elaborate these points further throughout the Bali process.

PAPER NO. 12: MICRONESIA (FEDERATED STATES OF)

VIEWS OF THE FEDERATED STATES OF MICRONESIA ON THE BALI WORK PROGRAMME

As invited by paragraph 8 of the Bali Action Plan, the Federated States of Micronesia submit the following views on the work programme:

1. Abrupt climate change. Recent scientific findings indicate that abrupt climate change from ice melt and ice disintegration, with accompanying destructive sea-level rise (starting with the destruction of coral reefs), may be less than 10 years away.¹ In light of this and other climate "tipping

The current rate of sea level change is not without consequences. However, the primary issue is whether global warming will reach a level such that ice sheets begin to disintegrate in a rapid, non-linear fashion on West Antarctica, Greenland or both. Once well under way, such a collapse might be impossible to stop, because there are multiple positive feedbacks. In that event, a sea level rise of several metres at least would be expected. ... The palaeoclimate record contains numerous examples of ice sheets yielding sea level rises of several metres per century when forcings were smaller than that of the business-as-usual scenario. For example, about 14,000 years ago, sea level rose approximately 20 metres in 400 years, or about 1 metre every 20 years.

There is growing evidence that the global warming already under way could bring a comparably rapid rise in sea level. ... The findings in the Antarctic are the most disconcerting. Warming there has been limited in recent decades, in part due to the effects of ozone depletion. The fact that West Antarctica is losing mass at a significant rate suggests that the thinning ice shelves are already beginning to affect ice discharge rates.

So far, warming of the ocean surface around Antarctica has been small compared with the rest of the world, as models predict, but that limited warming is expected to increase. The detection of recent, increasing summer surface melt on West Antarctica raises the danger that feedbacks among these processes could lead to non-linear growth of ice discharge from Antarctica. ...

Ocean warming and thus melting of ice shelves will continue even if CO2 levels are stabilised, because the ocean response time is long and the temperature at depth is far from equilibrium for current forcing. Ice sheets also have inertia and are far from equilibrium. There is also inertia in human systems: even if it is decided that changes must be made, it may take decades to replace infrastructure.

The threat of large sea level change is a principal element in my argument that the global community must aim to restrict any further global warming to less than 1 °C above the temperature in 2000. This implies a CO2 limit of about 450 parts per million or less. Such scenarios require almost immediate changes to get energy and greenhouse gas emissions onto a fundamentally different path. ...

The broader picture strongly indicates that ice sheets will respond in a non-linear fashion to global warming – and are already beginning to do so. There is enough information now, in my opinion, to make it a near certainty that business-as-usual scenarios will lead to disastrous multi-metre sea level rise on the century time scale.

Climate Catastrophe, New Scientist (28 July 2007). See also Committee on Abrupt Climate Change, Abrupt Climate Change: Inevitable Surprises, National Academy Press, Washington, D.C., 2003 (the "available evidence suggests that abrupt climate changes are not only possible, but likely in the future, potentially with large impacts on ecosystems and societies"); Peter Schwartz & Doug Randall, An Abrupt Climate Change Scenario and Its Implications for United States National Security (2003) (Pentagon analysis warns that the result of abrupt climate

¹ Dr. James Hansen, a leading climate scientist at NASA's Goddard Institute for Space Studies, explains that the tipping point for abrupt climate change and catastrophic six meter sea-level rise could be as close as ten years away. Dr. Hansen further explains that "[p]ositive climate feedbacks and global warming already 'in the pipeline' due to climate system inertia together yield the possibility of climate 'tipping points' ... such that large additional climate change and climate impacts are possible with little additional human-made forcing. Such a system demands early warnings and forces the concerned scientist to abandon the comfort of waiting for incontrovertible confirmations." *Scientific reticence and sea level rise*, Environ. Res. Lett. 2 (2007). Dr. Hansen raises specific concerns regarding melting ice sheets and rising sea levels:

points"², the definition of "dangerous levels" of greenhouse gas emissions should be expanded to include a focus on the "tipping points" for this and other abrupt climate changes, and immediate "fast start" strategies should be initiated to mitigate the imminent threat of crossing the "tipping points" for abrupt climate change.

2. "Fast start" mitigation strategies. With respect to Bali Action Plan paragraphs 1(b)(ii)-(iii), 1(d)(i)-(iii), and 1(e)(v), additional efforts are needed to promote "fast start" strategies with existing technologies to mitigate climate change in the immediate near-term. These strategies should include those that can start immediately, are effective and efficient, and have strong co-benefits for public health, local communities, and competitiveness, including:

- Expanding investment and speeding deployment of energy efficient technologies.³
- Promoting strategies to reduce soot, or black carbon, from industrial pollution, one of the most effective strategies for slowing Arctic warming.⁴
- Promoting bio-char carbon sequestration as a near-term carbon mitigation and storage strategy, as well as a mid- and long-term strategy for increasing "forest carbon stocks in developing countries".⁵ (Carbon mitigation and storage, including through enhanced coral reef growth, also should be expanded.)

change without adequate preparation "could be a significant drop in the human carrying capacity of the Earth's environment", including shortages of food and fresh water, drought, and flooding, which could lead to geopolitical "skirmishes, battles, and de-stabilization and even war."), http://www.gbn.com/ArticleDisplayServlet.srv?aid=26231; Chris Abbott, Paul Rogers, and John Slobada, Global Responses to Global Threats: Sustainable Security for the 21st Century, Oxford Research Group, June 2006, http://www.oxfordresearchgroup.org.uk/publications/briefing_papers/globalthreats.php; and Durwood Zaelke, Oran Young, & Scott Stone, After 'The Day After Tomorrow': What Will Society Learn from the Inevitability of Rapid Climate NATIONAL FORUM REVIEW. Change Events, STRATEGY Fall 2006. http://www.nationalstrategy.com/Portals/0/FINAL.FALL.2006.NSFR.pdf.

² According to a new scientific report published this month in the *Proceedings of the National Academy of Sciences*, other climate surprises are coming fast; for example, the collapse of the Indian summer monsoon could be a year away, and the dieback of the carbon-dioxide absorbing Amazon rainforest could tip within 50 years. Timothy Lenton, Hermann Held, Elmar Kriegler, Jim Hall, Wolfgang Lucht, Stefan Rahmstorf, and Hans Joachim Schellnhuber, *Tipping elements in the Earth's climate system*, 105 PROC. OF THE NAT'L ACAD. OF SCI. 6 (Feb. 12, 2008).

³ *G8 Summit Declaration*, at ¶¶ 46 and 62 ("62. The global potential for saving energy is huge. According to the International Energy Agency, successfully implemented energy efficiency policies could contribute to 80% of avoided greenhouse gases while substantially increasing security of supply."); *see also* Stephen Pacala and Robert Socolow, Stablization Wedges: Solving the Climate Problem for the Next 50 Years with Current Technologies, 305 Science 968 (13 August 2004) at 968-69 ("Improvements in efficiency and conservation probably offer the greatest potential to provide wedges [to reduce climate emissions].").

⁴ Reducing emissions of black carbon may be "the most effective way we know to retard Arctic warming." Charles Zender, Testimony for the Hearing on Black Carbon and Climate Change, U.S. House Committee on Oversight and Government Reform 6 (18 October 2007). *See also* Mark Z. Jacobson, Testimony for the Hearing on Black Carbon and Climate Change, U.S. House Committee on Oversight and Government Reform 12 (18 October 2007); S. Menon, J. Hansen, L. Nazarenko, and Y. Luo, *Climate Effects of Black Carbon Aerosols in China and India*, 297 SCIENCE 2250-2253 (2002); J. Hansen and L. Nazarenko, *Soot Climate Forcing via Snow and Ice Albedos*, PROC. NATL. ACAD. SCI. U.S.A. 423–428 (2004); IPCC, Fourth Assessment Report, Work Group I Report "The Physical Science Basic", Chapter 2: Changes in Atmospheric Constituents and in Radiative Forcing 163 (2007) *available at* http://www.ipcc.ch/ipccreports/ar4-wg1.htm.

⁵ Johannes Lehmann and John Gaunt, Marco Rondon, *Bio-char Sequestration in Terrestrial Ecosystems – A Review*, MITIGATION AND ADAPTATION STRATEGIES FOR GLOBAL CHANGE, 11: 403-427, at 1 (Springer 2006) (replacing slash-and-burn with slash-and-char would reduce global climate emissions 12%).

• Strengthening the Montreal Protocol's climate mitigation ability.⁶

3. Climate mitigation by source, sink, and sector. With respect to Bali Action Plan paragraphs 1(b)(iv)-(v) and (vii) and 1(d)(iv), further efforts are warranted to disaggregate the larger climate problem by source, sink, and/or sector, as is done under the Montreal Protocol on Substances that Deplete the Ozone Layer. This should include supplementing the multi-year IPCC reports with annual reports from technical committees representing key sources, sinks, and sectors, similar to the Montreal Protocol's Technology Assessment Panel and Technical Options Committees.

4. Other lessons of the Montreal Protocol for climate negotiations. FSM joined other Parties to UNFCCC and Montreal Protocol to present the lessons of the ozone treaty that are relevant for the climate negotiations. These lessons should be communicated to all Parties by the Montreal Protocol Secretariat, and incorporated into the climate negotiations, as appropriate.⁷

5. Climate funding and technology transfer mechanism. With respect to Bali Action Plan paragraphs 1(e)(i)-(iii), funding mechanisms to assist developing countries should be informed by and modeled after the Montreal Protocol's Multilateral Funding mechanism.⁸ Funding for national climate

⁶ See Guus J. M. Velders, et al., The Importance of the Montreal Protocol in Protecting Climate, 104 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 4814 (2007); and Donald Kaniaru, Rajendra Shende, Scott Stone & Durwood Zaelke, Frequently Asked Questions: Strengthening the Montreal Protocol by Accelerating the Phase-Out of HCFCs at the 20th Anniversary Meeting of the Parties, in Donald Kaniaru, Ed., THE MONTREAL PROTOCOL: CELEBRATING 20 YEARS OF ENVIRONMENTAL PROGRESS – OZONE LAYER AND CLIMATE CHANGE (Cameron May 2007).

⁷ A report on the key lessons was published February 15, 2008 in UNEP's *OzoNews; see also* http://www.igsd.org/ (containing select PowerPoint presentations from Bali seminar on lessons of Montreal Protocol for climate negotiations).

⁸ See generally, Stephen O. Andersen, K. Madhava Sarma, and Kristen N. Taddonio, TECHNOLOGY TRANSFER FOR THE OZONE LAYER: LESSONS FOR CLIMATE CHANGE (Earthscan 2007), and Donald Kaniaru, ed., THE MONTREAL PROTOCOL: CELEBRATING 20 YEARS OF ENVIRONMENTAL PROGRESS – OZONE LAYER AND CLIMATE CHANGE (Cameron May 2007); see also A Tale of Two Cities: Lessons for Climate Negotiators, by Romina Picolotti, Argentina's Minister of Environment, *MEA Bulletin*, Issue No. 37 (29 November 2007) (" A key role of modern environmental law is to harness and direct the power of optimism as well as fear, thus driving markets to a tipping point where they necessarily innovate and provide the environmentally superior solutions we need – essentially, a Moore's Law for climate solutions.).

focal points should be provided, as is done by the Multilateral Fund, to ensure the rapid diffusion and absorption of technologies needed for mitigation and adaptation.

6. Support for adaptation. Funding and technical assistance for adaptation "for developing countries that are particularly vulnerable", especially low-lying island and coastal countries, as well as associated technical support and capacity building, should be expanded, made available immediately, and use a democratic decision making process. It is important to operationalize as soon as possible efforts such as Japan's new financial mechanism, the Cool Earth Partnership, with a scale of 10 billion U.S. dollars, whereby Japan will cooperate with and assist developing countries in their efforts to address climate change; and the new fund announced by US President Bush at the first Large Economies meeting in Washington, DC in September 2007.

7. Support for coral reefs. Funding and technical assistance for protecting coral reefs of island and costal countries is critical both for mitigation and for adaptation, as coral reefs store significant amounts of carbon, and are critical for helping adapt to rising sea-levels and increasing storm surges. In addition, efforts to protect and to grow coral reefs should be eligible for credits under the Clean Development Mechanism.⁹

⁹ Pandolfi, *et al.* (2003) Global Trajectories of the long-term decline of coral reef ecosystems, *SCIENCE* 301, 955 (2003); and Coral reef destruction: the causes of coral bleaching. <u>http://www.libray.thinkquest.org</u>.

PAPER NO. 13: NEW ZEALAND

AD HOC WORKING GROUP ON LONG TERM CO-OPERATIVE ACTION.

- 1. New Zealand welcomes the opportunity to provide views on the future work programme of the Ad hoc Working Group on Long term Cooperative Action (AWG-LCA).¹
- 2. New Zealand is pleased that meetings in Bali have demonstrated the willingness of the international community to enhance global efforts to combat climate change. By enhancing action on mitigation, adaptation, financing and technology transfer and agreeing a long-term global goal for emissions reductions, full, effective and sustained implementation of the Convention by all Parties can be achieved.
- 3. We recall in particular the recent work of the IPCC and its findings that developed countries need to reduce emissions as a group in the range of 25-40% below 1990 levels by 2020 and that there is a need for substantial deviation from baseline emissions from developing countries over the same period. The work of the IPCC will be important in informing the elements of a global long-term goal.

AWG-LCA - mode of operation

- 4. Critical to the success of the negotiations over the next 16 months is the organisation of the new ad hoc group's work programme. The work of the AWG-LCA, the Kyoto Protocol AWG and the second review of the Kyoto Protocol pursuant to its Article 9 are inextricably linked. There is a need to progress these parallel work streams in step, towards a conclusion in 2009.
- 5. We should aim to organise the work of the AWG-LCA in the most efficient and effective manner so as to avoid duplication of effort across parallel negotiating tracks. And we should be mindful of complementary work undertaken by processes outside of the UNFCCC.
- 6. The work of the AWG-LCA needs to be iterative in order for the five building blocks of the Bali Action Plan to remain a coherent and integrated package. Each building block will only make sense in the context of the others, and in particular, the shared vision and long-term global goal. It will therefore be necessary to periodically revisit elements as discussions advance. Work should be organised with clear objectives for the outcomes of each session.
- 7. Consideration should also be given to which parts of the work programme can be advanced in informal settings before being brought back into formal negotiations. Examples of this include reducing emissions from deforestation in developing countries, sectoral approaches and work on reporting, measurement and verification. In deciding which parts of the work programme can be advanced in informal settings we should also be aware of the methodological work and thematic topics across parallel negotiating tracks and both the SBSTA and SBI agendas.
- 8. New Zealand considers that there is considerable merit in the UNFCCC negotiations drawing on practical, real world experience in operationalising policy. (For example, New Zealand's experience in implementing the Kyoto Protocol rules on Land Use, Land Use

¹ FCCC/CP/2007/L.7/Rev 1, paragraph 8 refers.

Change and Forestry has provided valuable lessons for us in preparing for the AWG's analysis of the means available to achieve emission reductions.) To facilitate this, we believe consideration should be given to using a new type of input to inform and complement AWG-LCA negotiating sessions and workshops: Pathfinder Projects.

- 9. Pathfinder Projects would seek to road-test some of the ideas and proposals put forward in the AWG-LCA, to see how they work in practice and to inform the negotiations. The experience of operationalising the Pathfinder Projects could provide valuable lessons for the AWG-LCA, through exposing both problems and opportunities. We envisage Pathfinder Projects would involve a small group of countries working together on a specific project, and for the results of that project to be reported back to the AWG-LCA, for example as part of a workshop. The funding and support for Projects would come from those countries involved. There may already be examples of work underway, including by various think tanks and informal processes that would fit the Pathfinder model.
- 10. Party submissions will be an essential tool and should be invited on all of the major building blocks in the Bali Action Plan. These submissions should be made in advance of discussions at each negotiating session.
- 11. By the end of 2008 it will be important to have completed at least initial consideration of all five of the building blocks of the Bali Action Plan contained within FCCC/CP/2007/L.7/Rev 1, paragraph 1. COP14 should then set the detailed work programme required to complete the AWG-LCA in time for COP15.

First session of the AWG-LCA

- 12. The work of both the AWG-LCA and Kyoto Protocol AWG needs to be organised sequentially and not in parallel. This issue is important for smaller delegations.
- 13. We believe that it is essential to finalise the organisation of work for the AWG-LCA at its first session, with a timetable through until the end of 2008. Early completion of the agenda at this first session will allow initial consideration of substantive items, and demonstrate the resolve of Parties to deliver on the Bali Action Plan by COP15.
- 14. Upon completion of the organisation of the Group's work, and at its first session, we suggest an initial exchange of views on the new concepts introduced in the Bali Action Plan, notably measurement, reporting and verification. There will need to be an ongoing work stream on these concepts as they are fundamental tools that will be needed to underpin commitments and actions under the Bali Action Plan para 1 (b). New Zealand will want to see this work identified as part of the work programme. Some of this work could be referred to SBSTA, but the AWG-LCA should keep control of it.
- 15. If time allows, the Group can begin to discuss substantive 'building block' items beginning with preliminary views of a long term global goal and calling for Party submissions on "a shared vision for long-term cooperative action, including a long-term global goal".

Second and subsequent sessions of the AWG-LCA

16. At the outset we wish to explore Parties' views on a long-term global goal as this helps frame Party contributions towards a shared vision for long-term cooperative action. Discussion of this important building block should be included in the work programme at each session.

- 17. As an indication of the order in which the remaining building blocks could be discussed, we are of the view that finance and technology should be discussed at the second session of the AWG-LCA.
- 18. Adaptation and mitigation can be discussed at the third session of the AWG-LCA following initial consideration of finance and technology.
- 19. A stock take of work will be required at COP14. We reiterate that by the end of 2008 it will be important to have completed initial consideration of all five of the building blocks of the Bali Action Plan contained within FCCC/CP/2007/L.7/Rev 1, paragraph 1.
- 20. As the work of the Group may be complemented by workshops and other activities, as required, New Zealand believes that a candidate for an early workshop topic should be 'sectoral approaches.' Early consideration of how a sectoral approach might work and what sectors could be included would benefit negotiations.
- 21. The annex attached to this submission outlines a proposed work programme for the AWG-LCA in 2008.

Annex

Ad hoc Working Group on Long term Co-operative Action Proposed Work programme

Month	Date	Event	Content
2008			
February	22	Submission	 Views on work programme.
March	31- 4 April	1 st meeting of AWG-LCA	 Finalise work programme. Exchange of views on measurement, reporting and verification Views on shared vision for long-term cooperative action.
April			
May		Submission	 Shared vision for long-term cooperative action Finance and technology.
June	2-13	2 nd meeting of AWG-LCA	 Shared vision for long-term cooperative action Finance and technology. Sectoral approaches in session workshop (as part of AWG KP).
July		Submission	 Adaptation and mitigation.
August		3 rd meeting of AWG-LCA	 Shared vision for long-term cooperative action. Adaptation and mitigation.
September			
October			
November		Submission	 Work programme, prospects for 2009. Shared vision for long-term cooperative action.
December	1-12	COP14 4 th meeting of AWG-LCA	 Complete initial consideration of all 5 building blocks. Stock take. Finalise work plan for 2009.

PAPER NO. 14: NORWAY

BALI ACTION PLAN

Norway welcomes the successful conclusions of COP 13/CMP3 in Bali where it was decided to establish an Ad Hoc Working Group on Long-term Cooperative Action (AWGLCA) under the auspices of the UNFCCC that shall complete its work in 2009. Parties were invited to submit to the secretariat, by 22 February 2008, their views regarding this group's work programme. Norway welcomes the opportunity to provide views on this important matter.

1 Work programme AWGLCA

The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPPC), and stated in the Bali Action Plan, emphasize the urgency of addressing climate change. Norway underlines the importance of the AWGLCA completing its work and presenting its outcome to the COP for adoption at its fifteenth session. In order to achieve a comprehensive global agreement in 2009, the work programme should be designed to ensure that the negotiation process progresses constructively and with necessary momentum. In our view, we have to achieve substantially progress already at COP 14/CMP 4 in Poznan this year. Norway looks forward to contributing to the negotiations. A detailed work programme including methods of work and the schedule of future sessions should be adopted at the first session in Bangkok. An effective organization of the work is essential for a successful outcome.

The Parties should already at the first session start establishing a common platform, a **shared vision** for long-term cooperative action including a long-term global goal for emission reductions, in order for the negotiations to be as targeted as possible. Special attention should further be given to the development of **financial mechanisms** to support adaptation, technology and mitigation actions in developing countries, and **comprehensive sector coverage**. We suggest that the AWGLCA should start consideration of main concepts for financial mechanisms and comprehensive sector coverage at the second meeting in Bonn (2-13 June).

In our view there should be a particular focus on development and diffusion of technologies for Carbon Capture and Storage (CCS) and on how to reduce emissions from deforestation/forest degradation and fast growing emissions from international maritime and aviation transportation. Norway proposes that there should be workshops on:

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- International aviation and maritime transportation
- Forestry
- Carbon Capture and Storage

The proposed workshops on international transportation and forestry should be scheduled in conjunction with the second session in Bonn, while the workshop on CCS should be held in conjunction with the third session in August/September. In addition, on international transportation, it should be considered establishing a working group. To enhance synergies and avoid duplication of work between different processes included in the Bali Road Map, meetings and workshops should to the greatest extent possible be scheduled in conjunction with one another.

Norway encourages the involvement of other multilateral bodies, such as the UN bodies for aviation (ICAO) and maritime transport (IMO) in the discussions on including these emissions in a future climate regime. Norway would further encourage a close co-operation with the UN Convention on biological diversity (CBD) on matters relating to deforestration and sustainable forest management. Also stakeholders in the public and private sectors and civil society should be invited to participate in workshops scheduled in the process. It is our view that experiences and views of a broad spectrum of stakeholders gives a better understanding of the issues at stake.

2 A Shared Vision

The Bali Action Plan states that a shared vision should include a long-term global goal for emission reductions. There is consensus (stated in the Bali Action Plan) and clear evidence that deep cuts in global emissions will be required. Norway has a clear position on the need for emission cuts that limit the global average temperature increase to no more than 2 degrees Celsius above pre-industrial levels. However, there are number of possible emission scenarios associated with a long term goal, and there is a need for more analytical work of on different solutions. The outcome of the discussions should be to provide the information needed to establish consensus for an ambitious and realistic global emissions scenario.

The goals could be tied to specified levels of atmospheric concentrations of greenhouse gases. The IPCC has presented scientific evidence on causes and emissions scenarios corresponding to stabilization on different concentration levels of greenhouse gases, and the assumed resulting temperature outcomes. The costs associated with each scenario will vary substantially and needs to be estimated and compared, taking into account elements of uncertainty. Analysis should thus combine the IPCC findings with other

mitigation cost studies, and on this background choose cost effective emission scenarios for each of the goals to be considered. Based on this information, one should look into the level of carbon prices needed to reach such emissions scenarios - prices that should be transparent and made public. Furthermore Norway would like a discussion on the length of commitment periods.

3 Mitigation

It is stated in the Bali Action Plan that deep cuts in global emissions will be required to achieve the ultimate objective of the Convention. Norway believes that to avoid dangerous climate change, global temperatures must rise no more than 2 degrees above pre-industrial level. According to IPCC this means that global emissions have to peak no later than 2015 and have to be reduced at least by half no later than 2050 compared to 1990. Industrialised nations have to cut emissions by 25-40 percent already in 2020. As stated in the programme of the AWG on Article 3.9 of the Kyoto Protocol that achievement of these reduction objectives by Annex I parties would make an important contribution to overall global efforts required to meet the ultimate objective of the Convention.

In addition to these efforts, emissions in developing countries have to deviate below their projected baseline emissions within the next few decades. In particular developing countries with fast growing emissions have to contribute. Norway recognizes that some developing countries are already planning to introduce ambitious emission reduction programmes. We encourage these countries to continue to elaborate on how emissions can be further reduced and, others to begin, taking into account sustainable development in these countries. There is a need for the AWGLCA to start discussions on how national appropriate mitigation actions by developing country Parties should be measured, reported and verified. As stated in the Bali Action Plan, mitigation actions by developing countries shall be supported and enabled by technology, financing and capacity-building in a measurable, reportable and verifiable manner. There is also a need to clarify what is meant by the terms "measurable", "reportable" and "verifiable" in this context.

4 Financial mechanisms

There is growing consensus on the need for adequate, predictable and increased financial resources in the climate regime. This calls for financial mechanisms integrated in the new global framework which will support action on mitigation, adaptation and technology innovation and transfer.

In the context of a global ambitious agreement where developed countries undertake substantial commitments, Norway intends to cut global emissions equivalent to 100 percent of its own emissions, becoming a carbon neutral nation within 2030. By 2020 Norway will undertake to reduce global greenhouse gas emissions by the equivalent of 30 percent of its own 1990 emissions. About 2/3 of emission reductions in 2020 will be cuts in domestic emissions bringing Norway on the path to a low carbon society. To support early mitigation action Norway launched in Bali a plan whereby Norway is prepared to increase its support for efforts to prevent deforestation/forest degradation in developing countries to about three billion NOK (more than 500 million dollars) a year.

Since deep cuts in global emissions will be required, Norway emphasizes the need for cost effective tools in global efforts to mitigate climate change. Norway supports expanding the carbon market aiming at establishing a global carbon price on emissions. A global carbon price creates incentives for mitigation and enhanced investments in clean technology development and diffusion. Such a market price will stimulate countries, businesses and individuals to invest in low-carbon assets and push the world towards a more sustainable path. In Norway about 70 percent of our greenhouse gas emissions are subject to a tax or covered by an emission trading scheme.

Existing mechanisms such as CDM, JI and emission trading should, in our view, be further elaborated on. The challenges would be to ensure their environmental integrity and the mechanisms' contribution to sustainable development and technology transfer, as well as enhance their regional distribution and reduce administrative costs. As well as improving existing mechanisms, innovative approaches are necessary to explore the possibility of developing new and effective mechanisms.

Another important aspect which needs further elaboration is the potential for a market to generate a demand for permits from developed countries when companies from both developed and developing countries take part in the same emission trading scheme. With this type of trading, the initial distribution of allowances might become a means of transfer of resources from richer countries to emerging economies and developing countries.

In addition to the traditional establishment of different funds, auctioning of permits is a possible source of revenue both at the national and international level. At the international level, a small portion could be withheld from the national quotas and auctioned by the appropriate international institution. The resulting revenue could then be placed in a fund to be used on adaptation actions or other specified purposes such as technology development. Even a small percentage of auctioning would generate a large source of finance.

Even with strong action on reducing greenhouse gas emissions, the need for adaptation efforts will increase, and the impacts of climate change will continue to be unevenly distributed. National adaptation costs are therefore independent of national mitigation efforts. The need to finance adaptation is thus an important global challenge and should be an integral part of a new treaty. Norway therefore suggests looking further into innovative approaches to finance adaptation.

Most technologies are already available, but there are barriers for implementation. Carbon pricing alone will not be sufficient to reduce emissions on the scale and pace required. Most likely, carbon prices will not reach a level that will lead to the development and implementation of necessary technologies, such as carbon capture and storage commercially at global scale. Large scale research and development is necessary in order to find new solutions and to reduce the costs of existing technologies to an affordable level. Successful development and diffusion of climate friendly technologies will reduce mitigation costs in the future. It is thus a need for speeding up these processes through increased financial support for research and development and through minimizing institutional and other non-market barriers to the deployment of new technologies.

Accordingly, Norway suggests further discussions on the following issues:

- Mechanisms for the establishment of a global price on emissions of CO₂ and other greenhouse gases consistent with the global emissions target.
- Innovative means of funding, including financial mechanisms for adaptation as well as for the development and implementation of technology.
- The interconnections between the global cap, emissions trading and other national measures.
- The consequences and alternatives when allowances are considered a financial instrument.

5 Comprehensive Sector Coverage

5.1 General

It is our view that in a future climate change regime it is essential that all sectors (comprehensive sector coverage) are covered to limit the increase in global mean temperature to 2 degree Celsius. To reduce the problem of carbon leakage deriving from entities moving activities to regions subject to less stringent policies on reducing emissions or no policies at all, Norway encourages approaches targeting emissions

in sectors not covered by the current climate change regime. Carbon leakage is in particular pertinent in sectors strongly exposed to international competition.

An economy wide agreement covering all sectors will give the most cost effective bases for reducing emissions on a global scale. In the Kyoto Protocol, most emissions from deforestation, as well as from international maritime and air transport are excluded from national emissions totals. These sectors have very different characteristics. This needs to be taken into account in discussions of rules and regulation. However, to reach a cost-effective agreement there is a prerequisite that all emissions are treated equally.

Norway would, in the discussions, like to further elaborate on whether a sector is best included by direct regulation such as technical standards or through general emissions caps, or through a combination of both. Furthermore there should be a discussion of the need for independent legally binding agreements for some sectors, with a separate carbon prices in a transitional period. A discussion of an agreement with or without explicit measures versus the obligation to surrender emissions permits, is desirable.

Norway would like a discussion on how to determine the emission cap in cases of wider coverage/extension of sectors. It might be necessary to establish rules for continued negotiations on including more sectors and countries and the discussion of the use of transitional periods (conditional or unconditional) for countries partially or fully taking on commitments.

5.2 International aviation and maritime transport

Greenhouse gas emissions from international aviation and shipping are growing faster than emissions from any other industry. These sectors represent about 5 per cent of the total global greenhouse gas emissions. According to some estimates, their emissions may contribute up to 10-15 per cent of the global total in 2050 if current growth continues. It is the view of Norway that emissions from international aviation and maritime transport should be dealt with in a global context and be included in a new global climate regime.

Information of the Oslo workshop

Norway, together with the European Environment Agency, arranged a technical workshop on emissions from international aviation and maritime transport in Oslo in October 2007. The workshop was attended by participants from Annex I and non-Annex I countries, the UNFCCC, the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the International Energy Agency (IEA) and experts involved in the work of the Intergovernmental Panel on Climate Change (IPCC). The workshop focused on technical issues related to GHG emissions from aviation and maritime transport but also discussed possible regimes for including those emissions into future international mitigation strategies.

The main conclusion from the workshop was that no technical obstacles related to monitoring and reporting of emissions remain that can not be solved. The absence of global policies and measures is more due to other political barriers than to technical difficulties. Furthermore, data availability and quality are not major obstacles in relation to most allocation options so far discussed, even if some practical issues needs to be solved. It also became apparent that because of differences between the two sectors (e.g. in existing regulations, where planes/ships are registered (Annex I/non-Annex I) what they carry), it could be advantageous to carry out future discussions separately.

ICAO's work on greenhouse gases

The main aim of the ICAO is sustainable growth of aviation. At present aviation activity is growing by 5 per cent per year. Emissions of greenhouse gases are growing at almost the same rate (about 4 per cent), which is greater than for any other sector. In Norway's view, this is alarming, bearing in mind the need for deep cuts in global emissions.

In September last year, the Assembly of ICAO adopted a resolution on limiting aviation's impact on climate change. The resolution contains no concrete action for emission reductions. The resolution requests States to refrain from imposing unilateral charges on aviation emissions, and to refrain from implementing emissions trading schemes unless on the basis of a mutual agreement with other States involved. 42 European States, including the EU and Norway, found this unacceptable and submitted a formal reservation. We support EU's determination to move ahead with an EU emissions trading scheme and to include all flights departing and arriving in the EU.

The ICAO must fulfil its leadership role international aviation matters, and demonstrate its ability to contribute to the solution of the climate problem substantively and expeditiously. As a part of this, ICAO should seek a strengthened and more formalized working relationship with the UNFCCC.

IMO's work on greenhouse gases

IMO adopted an assembly resolution in 2003 with a strategy for reducing emissions of greenhouse gases from shipping. However, so far actions by IMO have not resulted in the development of mechanisms which could lead to emission reductions. It has been decided to update an IMO Study on greenhouse gas emissions from ships from 2000 by 2009, and Terms of Reference for this study have been adopted.

The Maritime Environmental Protection Committee of the IMO (MEPC) aims to identify and further develop options in order to make recommendations to the 2009 IMO Assembly. According to a Work Plan adopted in 2005, the Committee should consider technical, operational and market based methods for dealing with GHG emissions at its meetings in 2008.

Norway has contributed to the work of the MEPC, e.g. by proposing different reduction mechanisms to be considered by the Committee. Our principal approach is towards the development of a legally binding global regime which includes all international shipping.

We submitted a document to the MEPC 56-meeting in July 2007 on elements for a possible CO2reduction scheme for international shipping. We also presented this scheme at a side-event in Bali during COP 13. The scheme includes the establishment of a global cap on CO_2 -emissions from shipping, a greenhouse gas emission levy on all bunkers sold to ships engaged in international transport, and a global maritime fund. The purpose of the fund would be to allocate financial resources to emissions reduction within the sector, to purchase CO_2 -credits on the emissions trading markets including CDM, and to fund adaptation projects in developing countries, e.g. by supporting the Adaptation Fund. The levy would be flat and imposed on all CO_2 -emissions from international shipping. It would secure compensation or reduction of CO_2 -emissions above an agreed cap on global emissions. It would also be competition neutral. Denmark has presented a similar system combined with a design index for new ships.

The different proposals will be discussed at the next meeting of the Maritime Environmental Protection Committee in April. The Secretary General of IMO indicated the need for an ad hoc working group meeting after MEPC 57. In the view of Norway, there is a need to hold such a meeting, and we have offered to host the meeting. I agreed by the MEPC the meeting will be held 23-27 June 2008.

The IMO must fulfil its leadership role international shipping matters, and demonstrate its ability to contribute to the solution of the climate problem substantively and expeditiously. As a part of this, the IMO should seek a strengthened and more formalized working relationship with the UNFCCC.

Workshops/working group - mandates

We propose in-sessional workshop(s) to be held. It should be considered to hold two separate workshops, since one of the conclusions from the Oslo workshop was that it would be advantageous to consider the two sectors separately because of the internal differences. If one workshop is not sufficient to fulfill the mandate the AWGLCA should consider establishing another one. In addition it should be considered establishing a working group.

The workshops/working group should be mandated to elaborate proposals on how these sectors may be included, and what commitments they should be subject to. The workshops/working group would benefit from participation of experts and representatives from the IMO and ICAO, and we suggest the organizations be invited formally. More specifically, the workshop/working group should be tasked to consider the following issues:

- What emissions should be included (all emissions from aviation/maritime transport (both domestic and international), all emissions from international aviation/maritime transport, excluding emissions from transport between LDCs, etc);
- Proposals for emission targets for each of the sectors for a selected period post-2012 and mechanisms to achieve them
- Elaboration of background information and material for the establishment of sectoral and country-based commitments respectively, including assessments of legal, administrative and institutional questions
- Elaborate on the role of IMO and ICAO in the development of proposals for emission targets and mechanisms

5.3 Land Use Land Use Change and Forestry (LULUCF)

The LULUCF sector is an important sector in the context of climate change both for developing and for developed countries. According to IPCCs Fourth Assessment Report (AR4) emissions from deforestation in developing countries contribute about 20 percent of global CO_2 emissions. At the same time, an amount of the same order of magnitude is removed from the atmosphere due to expanding forest areas and accumulating woody biomass in the boreal and temperate zone. Further, the IPCC has identified a significant mitigation potential for the forest sector. Hence, finding ways to effectively

enhance CO_2 sequestration from the LULUCF sector in future commitments will contribute significantly to achieving the ultimate objective of the Convention.

Norway, believes that a better inclusion of the LULUCF sector in future commitments may be essential to limit the increase in global mean temperature to a maximum of 2 degrees Celsius. To achieve this goal, measures undertaken in the LULUCF sector should come in addition to stronger mitigation efforts in other sectors.

In our submission on "Further Commitments under the Kyoto Protocol", we presented some views on how the LULUCF sector could be treated in further commitments under the Kyoto Protocol. We believe that many of the views and proposals may also be relevant when considering ways to include the LULUCF sector in a future regime under the Convention. Some of our views can be summarized as follows:

- The mitigation potential in the LULUCF sector will vary considerably depending on policy options. In order to ensure that mitigation efforts in the LULUCF sector are additional to efforts in other sectors, the implications of the different policy options should be assessed before overall commitments are defined.
- A future LULUCF regime should in principle be holistic and strive for a complete geographical coverage and inclusion of all significant sources and sinks.
- A future LULUCF regime should aim to promote new incentives for reducing emissions, enhancing carbon stocks and increasing use of CO₂ neutral bio-energy.
- In addition to stimulation of sink enhancements, a future LULUCF regime should contribute to sustainable forest management, including protection of biodiversity and the rights of local and indigenous communities.
- A comprehensive accounting system requires a monitoring and reporting system that covers all relevant land areas, activities, pools and gases. The most recent 2006 IPCC Guideline is a good basis for a future monitoring and reporting system.
- The use of bio-energy to substitute fossil fuels in the energy sector should be considered in relation to the treatment of the LULUCF sector
- It is important to include deforestation, forest degradation and enhancement of carbon stock related to sustainable forest management in a future regime. The role of forest conservation should also be considered.

In addition it is essential to consider mitigation within the LULUCF sector in relation to adaptation strategies. The LULUCF sector, and particularly the forest sector, is an important supplier of a variety of socio-economic and environmental services. Hence, sustainable management of forests, agriculture areas and other LULUCF sectors is essential, to effectively mitigate, as well as adapt, to climate change.

The work programme for enhancing the implementation of the Convention (Bali Action Plan) must address the LULUCF sector thoroughly by including specific discussion on:

- Commitments or actions related to LULUCF for developed countries
- Mitigation actions on LULUCF by developing countries
- Policy approaches and positive incentives on issues related to deforestation, degradation, enhancement of carbon stock related to sustainable management of forests and the role of forest conservation.

With regard to deforestation, degradation and enhancement of carbon stock related to sustainable forest management it is important to streamline the process with the process established under COP 13 decision on "Reducing emissions from deforestation in developing countries". Based on this decision, SBSTA will undertake a programme of work on methodology issues, including submission by 21 March 2008, and consideration at SBSTA 28 in June 2008, a workshop probably in June 2008 and finally a recommendation on possible methodology approaches at COP 14 in Poland. The Bali Action Plan should complement this process and focus on elements that could feed into this process, such as the methodological issues. To enhance synergies we propose holding a workshop on forestry in conjunction with the second session in Bonn.

6. Workshop on Carbon Capture and Storage

It is crucial that the future climate regime creates a framework that welcomes, promotes and contributes to funding research, innovation and implementation of all kind of technologies that contribute to reducing emissions. This requires increased focus on renewable energy such as hydro power, wind power, solar and biomass, as well as energy efficiency. But we must also meet the challenge of reducing the emissions from the production and use of fossil fuels. CCS will complement other climate change mitigation actions by providing a necessary option for using fossil fuels during the transition to a low carbon economy. In our view carbon capture and storage must be recognized as a key mitigation technology. Hence, and because of the complexity of CCS Norway suggests that it would be helpful to

hold a workshop in conjunction with the third session, on how to further develop and introduce these technologies at a global scale, and elaborate on the needs related to CCS in a future climate regime.

CCS offers the potential to reduce CO_2 emissions by 85 to 95 percent from coal and gas fired power plants and other industrial processes. According to the IPCC (Fourth Assessment Report and the Special Report on Carbon Dioxide Capture Storage), CCS is a key technology in the mitigation of climate change. This conclusion is supported by the International Energy Agency which stresses that carbon capture and storage is a key technology in reaching a long term goal of limiting the global temperature increase to a maximum of 2 degrees Celsius compared to pre-industrial level.

Norway is strongly committed to further develop and contribute to a widespread dissemination of this technology. The Norwegian government's strategy for implementing CCS technologies has been to introduce a combination of means such as financial support and regulation (requirements in permits). Norway has extensive experience in storing CO_2 in geological structures. Since 1996, one million tons of CO_2 per year have been separated from the gas production on the Sleipner Vest field in the North Sea and stored in a geological formation 1,000 meters below the seabed. Multinational research projects have collected relevant data in the formation, and developed and demonstrated prediction methods for the movement of the CO_2 for many years into the future. The data show the precise subsurface location of the CO_2 plume and confirms that the CO_2 is confined securely within the storage reservoir. Capturing CO_2 from gas fired power plants at a big scale is more complicated and more expensive, but we are gaining more experience also on this. The government intends to provide for full scale carbon capture and storage solution for a gas fired power plant (Kårstø) and a refinery/gas fired power plant (Mongstad). The latter will have technology for capturing 100 000 tons CO_2 in place from 2011, escalating to full scale capturing from 2014.

PAPER NO. 15: PAKISTAN

PAKISTAN VIEWS ON BALI ACTION PLAN-WORK PROGRAMME FOR THE AD WORKING GROUP ON LONG TERM COOPERATIVE ACTION UNDER THE CONVENTION

Ministry of Environment, Government of Pakistan appreciates the efforts and role of the Parties and UNFCCC Secretariat for developing Bali Action Plan and the future actions to meet the challenges of climate change. Pakistan associates itself with the G 77 and China on the subject and ensures continuous support for the process launched in Bali and to turn it into practical actions through effective partnership and global strategy.

Climate change is causing irrevocable damage to Pakistan with tremendous social, economic, strategic and environmental impacts. Pakistan is vulnerable to environmentally related protectionism. Pakistan has to ensure food, water, energy and health securities on sustainable basis. Pakistan is in the process of evolving a comprehensive and coherent policy that could encompass our economic development, energy, trade and environmental policies.

While endorsing the contents of the paragraph 1 of the Bali Action Plan. Pakistan has following views and comments.

- a) Climate change has provided an opportunity to advance national sustainable development in the developing countries and therefore the mechanisms, efforts, means, incentives and cooperation in all relevant sectors should be on sustainable and long term basis to achieve the ultimate objective of UNFCCC.
- b) All Parties and stakeholders are require to pool up intellectual, technical, financial and administrative resources and to join forces including Governments, IGOs, NGOs, Private sectors, civil society and individual around the world to combat adverse impacts of climate change.

PAPER NO. 16: PHILIPPINES

SUBMISSION OF THE PHILIPPINES ON THE WORK PROGRAMME OF THE AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION

Submission of the Philippines on the Work Programme of the *ad hoc* Working Group on Long-term Cooperative Action under the Convention

The Philippines, as a Party to the UN Framework Convention on Climate Change (UNFCCC) makes the following submission for the consideration of the first meeting of the *ad hoc* Working Group on Long-term Cooperative Action under the Convention on its work programme.

In making this submission, the Philippines is guided by the following basic considerations:

- 1. The decision adopted by COP13 in Bali, Indonesia, launched "a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012"
- 2. The UNFCCC is the only legally-binding framework for global cooperative action on climate change, science-based and universally agreed. The Convention has a clear objective, made up of its ultimate objective and the parameters for the achievement of this ultimate objective, that is, adaptation and sustainable development.
- 3. The Convention is guided by its principles, in particular its first principle, which is that of sustainable development ("protection of the climate system for the benefit of present and future generations of humankind"), equity ("on the basis of equity"), and "in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof." Developed country Parties should take the lead, therefore, not only in mitigation but also in adaptation.
- 4. The Convention is further strengthened by its Kyoto Protocol which focuses on the implementation of commitments undertaken under its Articles 4.2 (a) and (b), by developed country Parties and other Parties included in Annex I. Work on the amendments to Annex B of the Protocol is ongoing under a separate process undertaken by the Conference of the Parties serving as the meeting of the Parties (CMP) to the Kyoto Protocol, as mandated by Article 3.9 of the Protocol. This process should continue its work separately from the work of the COP.
- 5. The Philippines, as a developing country Party to the Convention, committed itself to long-term cooperative action at the global level when it ratified the UNFCCC. The Philippines welcomes the process that would enable the "full, effective and sustained implementation of the Convention."
- 6. In pursuing this long-term cooperative action under the Convention, the Philippines adheres to Article 4.7 of the Convention, which contains the key to the balance of responsibilities under the Convention, and which fully states 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 related to financial resources and transfer of technology and will take fully into account the economic and social development and poverty eradication are the first and overriding priorities of the

developing country Parties." This article was only partly reflected and thus distorted in the second preambular paragraph of the decision taken by the COP to launch this process.

7. All issues in the process launched under this COP13 decision are already being discussed under the Convention. All the issues under the Convention are interlinked and these linkages should be taken into account in the work programme of the *ad hoc* working group. National communications are basic obligations of all Parties to the Convention, although not specifically mentioned in the listings of the decision. It would not be possible for a country to undertake any mitigation or adaptation measure without national GHG inventories, or vulnerability assessments. National action plans, policies and measures, on climate change are reported in national communications, in accordance with the decisions taken by the COP as provided for in the Convention.

The work programme of the *ad hoc* working group:

- 1. should focus on the full, effective and sustained implementation of the Convention "now, up to and beyond" 2012, as stated in the decision. Work on the various issues mentioned in paragraph 1 of the decision should therefore be directly linked to the discussions that are ongoing within the Convention, in particular on mitigation, adaptation, technology development and transfer and provision of financial resources." Progress in the work of the *ad hoc* working group should not in any way duplicate or prejudge work that is already being undertaken under the Convention on these issues, but instead be measured in terms of progress of the work done under the Convention.
- 2. **on paragraph 1 (a) of the decision:** for developing countries, including the Philippines, the only way to contribute to a long-term global goal for emissions reductions would be through the pursuit of sustainable development, that is, the integration of climate change considerations in socio-economic development planning. Discussions should include information on what is already being done in many countries to integrate climate change considerations into development planning, and steps undertaken to pursue a clean development path. Exchange of information on best practices and effectiveness of policies and measures could assist Parties in their choice of policies and measures to be undertaken.
- 3. Under the principle of common but differentiated responsibilities, developed countries should take the lead in addressing climate change and its adverse effects, through "modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention" (Article 4.2 of the Convention). This must therefore be discussed under the work programme of the decision so as to determine a long-term global goal for emission reductions.

4. on para. 1 (b), mitigation"

i. since this sub-paragraph only provides for "nationally appropriate mitigation commitments **or** actions", and of "quantified emission limitation and reduction objectives", instead of commitments, discussions under this sub-item should be of mitigation actions **over and above** those that are undertaken as quantified emission limitation or reduction commitments in annex B of the Kyoto Protocol. Discussions would also be on how these "mitigation commitments or actions" would be measurable and verifiable under the Convention. Under the Convention discussions on Annex I national communications, these actions should be included as reportable, as provided for in Article 12, paragraph 2 sub-paragraphs (a) and (b) of the Convention.

- ii. Discussions should determine how "nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, are supported and enabled by technology, financing and capacity-building, and how this support can be measured and verified. Under the Convention, discussions on Annex I national communication should include information on the implementation of Article 12, paragraph 3 of the Convention.
- 5. on para. 1 (c), adaptation: work on this sub-paragraph should take fully into account work on adaptation under the Convention, in particular the Nairobi Work programme. Consideration of international cooperation should build upon and be in addition to the work already being undertaken under the Convention. Financing adaptation in particular should be a focus of the discussions, in view of the very limited financial resources available for adaptation under the Convention. Even the separate funds established under the Convention so as to focus financing for adaptation, and not only for mitigation, the Special Climate Change Fund and the Least Developed Countries Fund, have been inadequate to meet urgent, adaptation needs. Collaborative development and sharing of technologies, including endogenous technologies, for adaptation should be included as an essential element of adaptation.
- 6. For both mitigation and adaptation, work under the *ad hoc* working group should build upon those that are being undertaken the Convention and seek to move those discussions forward. Because of the very wide scope of the work envisaged, decisions taken in these areas should be linked to the decisions to be taken under the Convention.
- 7. It must be recognized that technology development transfer and provision of financial resources are commitments of developed countries under the Convention. In order to enable the "full, effective and sustained implementation of the Convention", discussions under this decision on these issues should not water down or undermine these commitments, but rather reinforce them. The work of the *ad hoc* working group should seek to promote consistence and coherence of the activities on technology transfer and financing from all other sources with the work being done under the Convention.
- 8. Decisions have been taken under the Convention to implement commitments on developments and transfer of technology, and on the provision of financial resources. As previously stated, all issues in the Convention are interlinked. For example, non-Annex I national communications must be financed at agreed full costs, as provided for in the Convention, for them to get the necessary information or data so that they can undertake mitigation measures, or adaptation. Recent decisions have also been taken on widening the financial mechanism of the Convention to assist in the implementation, as well as on how to promote the development and transfer of technologies have been taken under the Convention. The work of the *ad hoc* working group should reinforce these decisions.
- 9. On the provision of financial resources and investments, discussions should include information on how the provision of financial resources and investment flows to developing countries affect their emissions, whether positively or negatively, and steps to be taken by all Parties that would ensure that these resources and investments would be beneficial for climate change.

These are the preliminary submission of the Philippines to the *ad hoc* working group work programme.

PAPER NO. 17: RWANDA

RWANDA'S VIEWS REGARDING THE BALI WORK PROGRAMME

During a two year process of formal negotiations on a post Kyoto Agreement, Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWGLCA) should take into account the issues related to enhanced actions on mitigation, adaptation, transfer of technologies and financial resources and consider the following points:

- In support of the principle of equity, the content of Article 4 of the UNFCCC, paragraph 1 (c) and (e), paragraphs 4, 5, 7 and 8 which define the commitments of all the Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances which highlight the obligations of the developed countries to reduce the GHG emissions and to assist the developing Country Parties in costs of adaptation to the adverse effects by promoting, facilitating and finance the transfer of technologies should be retained;
- Ways and means of prohibiting the exportation of environmental unfriendly equipments to developing countries such as vehicles, fridges and refrigerators and others which contribute to the GHG emissions and ozone layer depletion.

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PAPER NO. 18: SAUDI ARABIA

BALI ACTION PLAN

Saudi Arabia welcomes the opportunity to submit its views to the secretariat, by 22 February 2008, regarding the work programme of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, taking into account the elements referred to in paragraph 1 of the Bali Action Plan, to be compiled by the secretariat for consideration by the group at its first meeting requested by paragraph 8 of Bali action plan.

VIEWS

It is important to keep in mind that the Bali action plan contains an agreement "to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012", it is not an agreement to replace or supersede the convention, or any of its principles and balance of rights and obligations. Hence, the exchange and negotiations under the Bali Action Plan shall be within the context of the Convention, with emphasis on Article 4, where commitments for Annex I and non-Annex I are clearly outlined and identified.

It is important that we keep a clear separation between the Convention and the Kyoto tracks. Therefore, we should not import commitment processes (i.e. reporting, review, compliance) under the Kyoto Protocol to the Bali action plan.

The programme of work identifies the need for enhanced action under the four main areas of adaptation, mitigation, technology development and transfer, and the provision of financial resources. It is important to maintain the focus in the areas specified without diversion or introduction of other extraneous elements.

The programme of work shall be discussed in an integrated manner. As all issues are interlinked, they need to be addressed together. The initial focus however should be placed on addressing technology development and transfer and the provision of financial resources. These are the enabling mechanisms that must be clearly identified and detailed.

Economic and social development and poverty eradication remain the first and overriding priorities of developing country parties. And hence, any actions by developing countries must be nationally appropriate and in the context of sustainable development.

The extent to which developing country Parties will be able to undertake any mitigation action, in accordance with their national sustainable development plans, will depend on the extent of the provision of financial resources and transfer of technology as well as capacity building to enable such action. Finding ways to appropriately and accurately measure, report, and verify the provision of the required financial resources and transfer of technology is an essential step prior to engaging in discussion on any mitigation actions. The tools available to developing countries must be clearly defined, understood and committed. Only then will developing countries be in a position to evaluate what nationally appropriate actions can they undertake in line with their sustainable development plans.

The real challenge in addressing the Bali Action Plan will be in making breakthroughs in unlocking the toolbox, and availing the required financing and technology that will make action possible.

Addressing the impact of climate change response measure is a cross cutting issue under the Bali Action Plan and must be fully covered under the deliberations.

- Minimizing the impact of response measures under any action or mitigation commitment in accordance with article 4.8 of the convention;
- Adaptation to the adverse impact of response measures through various means including economic diversification;
- The further development and transfer of win-win technologies to minimize the adverse impact of response measures. Such technologies include carbon capture and storage, and clean fossil fuel technologies;
- The provision of new and additional financial resources to address specific needs and concerns of developing country parties arising from the adverse effects of response measures.

PAPER NO. 19: SINGAPORE

WORK PROGRAMME FOR THE AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION

1 Climate change and its effects of global warming are urgent issues which the international community will need to address through long-term cooperative action. To achieve the ultimate objective of the Convention, it was agreed that the principle of "Common but Differentiated Responsibilities" should continue to apply. All countries, both developed and developing, have a part to play to address climate change based on their different national circumstances. The developing countries' actions should also be supported by technology, financing and capacity-building. Giving substance to these important principles will ensure that all countries will play a part in the efforts to achieve the full, effective and sustained implementation of the Convention.

Energy Efficiency

2 The participation of developing countries will require mitigation actions which will not curb their economic development. Means will need to be found to achieve both a reduction in greenhouse gas emissions by developing countries and for them to have continued economic growth. Developing countries can achieve this dual objective through actions which will improve their energy efficiency. This aspect will have to be fully discussed by all Parties at the AWG to assist developing countries to attain higher energy efficiency.

Technology and Financial Assistance

3 As measures to achieve higher energy efficiency require inputs of technology and financial assistance, the AWG should discuss how these means can effectively be made available to the developing countries. In this respect, many developing countries are fully dependent on fossil fuels for their energy needs, without any alternative energy sources. Developing countries should be given access to technology and financing to reduce the carbon intensity and improve the efficiency of their energy use.

Sustainable Development Policies

4 Under the terms of the Bali Action Plan, developing countries can contribute to global climate change efforts by adopting nationally appropriate mitigation actions in the context of sustainable development. Sustainable development policies and measures (SD-PAMs) would allow developing countries to pursue economic growth in an environmentally sustainable manner. In this respect, the AWG should consider how to encourage developing countries to undertake SD-PAMS appropriate to their national circumstances through a system of positive incentives.

Protection of Carbon Sinks

5 Another key element in the long-term approach to tackle climate change is the protection of the world's carbon sinks. Deforestation of tropical rainforests accounts for about 20% of the current global carbon emissions. The importance of the Reducing Emissions from Deforestation and Forest Degradation (REDD) initiative was recognized and included in the Bali Action Plan. The AWG should work to develop the modalities to fully implement the objectives of the REDD initiative to reduce emissions from deforestation and forest degradation in developing countries.

Regional and International Efforts

6 Beyond national efforts, regional efforts also play an important part. In this context, efforts have been made to address the reduction of carbon emissions among regional countries in the Asia Pacific region. The Asia-Pacific Economic Cooperation (APEC) has set an aspirational target of reducing energy intensity by 25% by 2030. Climate change, energy, environment and sustainable development were also one of the main themes at the Association of Southeast Asian Nations (ASEAN) Summit and East Asia Summit (EAS) held in Singapore in November 2007. These efforts should be supported.

7 The AWG discussions will need to fully address these issues early, so that there will be full participation of developing countries in the global effort to tackle climate change. Tackling climate change requires concerted actions and a multi-prong approach.

PAPER NO. 20: SLOVENIA ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

This submission is supported by Croatia, Albania, Bosnia and Herzegovina, Former Yugoslav Republic of Macedonia, Serbia, Ukraine and Turkey

BALI ACTION PLAN

VIEWS REGARDING THE WORK PROGRAMME FOR THE AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION TAKING INTO ACCOUNT THE ELEMENTS TO BE ADDRESSED BY THE GROUP (DECISION 1/CP.13)

1. Slovenia, on behalf of the European Community and its Member States, welcomes the opportunity to submit its views on the work programme for the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWGLCA).

General remarks

- 2. The EU welcomes the successful conclusion of COP 13/CMP 3 in Bali in December 2007. The results of this Conference emphasised the need for a comprehensive post-2012 agreement to be reached by 2009. The EU welcomes the establishment of the AWGLCA and emphasises the need to decide on an ambitious and efficient work programme for the group at its first session. The EU welcomes also the conclusions of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG) at its resumed fourth session and the agreement on an ambitious timetable for the further work of this AWG that was achieved. The EU believes the necessary work should be conducted as effectively as possible for the AWG to be able to complete its mandate as part of a comprehensive global agreement under the UNFCCC.
- 3. Based on the solid scientific message provided by the IPCC in its reports throughout the year 2007, Parties reiterated that there is a need for global emissions to peak within the next 10-15 years and to be reduced to very low levels, well below half of levels in 2000 by the middle of the twenty-first century in order to stabilise their concentrations in the atmosphere at the lowest levels assessed by the IPCC to date. Developed countries need to continue to take the lead in reducing global greenhouse gas emissions by seriously considering emission reduction commitments as a group in the range of 25-40% below 1990 levels by 2020. The IPCC's Working Group 3 report mentions that in order to limit the global average temperature increase to not more than 2°C above pre-industrial levels, there is a need for substantial deviations from baseline (business as usual) emissions in several developing regions in addition to the absolute emission reduction commitments of 25-40% by industrialised countries by 2020 (compared to 1990)¹.

¹ IPCC Working Group 3 report, Chapter 13, page 776.

- 4. In addition, the EU emphasises that adaptation to the unavoidable impacts of climate change needs to be addressed as a priority within the negotiations on a post-2012 agreement, especially to enhance the support for adaptation action and capacity building in those developing countries that are most vulnerable to the impacts of climate change. With respect to both mitigation and adaptation, there is a need to discuss the issues of technology cooperation, financing and investment.
- 5. The EU believes that with a view to achieving our common goal of a post-2012 agreement by 2009, all relevant processes need to progress as constructively as possible, coordinate with and draw upon relevant results achieved and work under way in other bodies and processes under the Convention and its Kyoto Protocol. In particular, the work of the AWGLCA, the AWG and the second review of the Kyoto Protocol pursuant to its Article 9 need to progress in harmony and should aim to maximise synergies toward a global and comprehensive agreement in 2009.

On the Work Programme of the AGLCA

- 6. The EU stresses the need to ensure that the sessions of the AWGLCA will take place at the dates suggested in the indicative timetable to Decision 1/CP.13 in tandem with the AWG so as to guarantee the best use of the limited time available for the work of this group that has to be completed in 2009. In addition we also recommend scheduling at least four sessions in 2009.
- 7. The EU emphasises the importance of taking stock of progress made at COP 14 and, for conclusions at COP 14 to identify a focused list of options to be addressed in the work programme for 2009, which should be guided by an agreement on (the main elements of) the shared vision.
- 8. The EU considers it important to ensure that the work programme is an iterative process in which each session can build on the discussion of the former thereby reinforcing previous discussions. This could also mean that issues are being dealt with in parallel in order to maximise the limited time available to complete the work programme. In this regard, the EU sees merit in initiating the work programme with the discussion on the shared vision, dealing with perspectives on low-carbon development paths that ensure that our collective action on climate change is sufficiently ambitious in order to avoid dangerous climate change while we also start addressing enhanced action on mitigation and adaptation. We also need to begin exploring issues of substance for the supporting building blocks of technology as well as financing and investment in the first half of 2008, drawing on the work and considering recommendations of the EGTT as well as work underway in processes and organisations outside the UNFCCC.
- 9. The EU believes that it is of the utmost importance to effectively engage practitioners and stakeholders in the discussions on the elements of an agreement in Copenhagen. In that regard, the EU suggests that the in-session workshops proposed foresee the participation of representatives from governmental, intergovernmental and non-governmental organisations (including the private sector) in order to promote an open and constructive exchange of experiences, thus contributing to a more thorough and shared understanding of the issues.

The EU would also suggest that the UNFCCC calls upon organisations, in particular those of the UN system, to facilitate and promote dialogue among their respective stakeholders on the relevant issues for an agreement and that they report on these issues for the benefit of all Parties.

10. With a view to developing a work programme that results in an agreed outcome at the fifteenth session of the Conference of the Parties on the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, and taking into account paragraphs 3 and 11 of Decision 1/CP.13, in particular input from the IPCC AR4 and the work programmes of other relevant issues under the Convention and its Kyoto Protocol, the EU proposes the following work programme:

Date/session	Activity (references below are to relevant paragraphs	Other work under Convention or KP relevant to Bali Action
	in Decision 1/CP.13)	Plan (w.r.t. paragraph 11 of 1/CP.13)
22 February 2008	Submission on work programme	15 February submission on ToR on review of the implementation of Articles 4,5 and 4,1(c)
7 March 2008		Submission on the way to address issues identified in the second review of the Kyoto Protocol pursuant to its Article 9
21 March 2008		Submission on REDD methodology
AWGLCA 1 31 March - 4 April 2008	Agreement on work programme Start consideration/discussion of main concepts for all building blocks	 AWG 5 (first part) analysis of means available to AI Parties (in session workshop)
	In-session workshop on shared vision, 1 (a): perspectives on low-carbon and climate-safe development pathways to avoid dangerous climate change.	10-11 March EGTT meeting to agree work programme
25 April 2008	Further Submissions on issues on work programme for next session, including submission on shared vision.	 (April/May) EGTT meeting to agree ToR on: Development of performance indicators Development of the complemented set of actions related to the technology framework Identification, analysis and assessment on financing (based on set of agreed criteria) strategy paper, including sectoral approaches, on long-term/post

		2012 perspective
16 May 2008	In preparation of AGLCA 2: Secretariat	
	synthesis on the submissions	
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AGLCA 2 2-13 June 2008	 Shared vision: 1(a) Round table Mitigation: 1(b) (i), (ii), (iii), (iv), (v) – mitigation and approaches to enhance implementation, in particular: 1(b)(i): Addressing comparability of efforts 1(b)(i): Addressing ways of recognising developing countries action and consideration of options and incentives to enhance contributions by developing countries 1(b)(iii) - emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, including input from SBSTA 1(b)(iv): identification of relevant sectors 1(b)(v): approaches to enhance implementation. In session workshop on enhanced action on mitigation of climate change, in particular, on actions already undertaken and existing national goals/targets and ideas for further action by developing country Parties and Annex I Parties that are non-KP ratifiers. Adaptation 1(c) (i) in particular: vulnerability assessments and prioritisation of action capacity building and response strategies integration of adaptation actions into sectoral and national planning needs of developing countries that are particularly vulnerable to the adverse effects of climate change 	AWG 5 (resumed) means continued (roundtable) and methodological issues (in-session workshop) Mitigation: Deforestation - REDD SBSTA conclusions on the terms of reference on the workshop in Japan, October 2008 Adaptation: relevant work under SBI and SBSTA, in particular the informal pre-sessional meeting to consider further actions, based on the information contained in paragraph 1 (a) on the adverse effects of climate change, of the SBI 27 conclusions on Decision 1/CP10, as well as the informal pre-sessional meeting to be held before SBSTA 28 to consider the outcomes of the activities held up to that session.
	In session workshop to enhance action on adaptation, focusing on the actions undertaken and experience of parties in integrating adaptation actions into sectoral	
	integrating adaptation actions into sectoral and national planning	

activities and respective conclusions	undertaken under decisions 1/CP.10, the	S	In addition, input from SBI and SBSTA. Secretariat to make presentations on activities and respective conclusions	
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AWGLCA 2	Technology	Technology:
2-13 June 2008	AGLCA 2 to consider the EGTT ToR on a	- SBSTA and SBI (joint contact
(continued)	post 2012 strategy paper, including sectoral	group) endorsement of EGTT
(continued)	approaches, and relationship with the BAP	work programme for:
	items 1(d)(i) to (iv) and 1(b)(ii), with a view	1) medium-term perspective
	to recommending further work under the	(2008-2012), in particular the
	AWGLCA or the EGTT.	development of the set of actions
	AWGLEA OF the LOTT.	related to the technology transfer
	In session workshop to consider:	framework
	- The scope of technology as a building	2) long term perspective beyond
	block including:	2012, in particular agreement on
	- Technology needs (in developed and	ToR for elaborating a post 2012
	developing countries), including drawing on	strategy paper, including sectoral
	the EGTT work on TNAs good practice;	approaches
	- The status of technologies in different	approaches
	sectors and regions, and links to a long-term	- SBSTA to consider:
	stabilisation goal;	1) ToR on identification, analysis
	- Technology and investment challenges, in	and assessment of existing and
	terms of technology development and	potential new financing resources
	transfer.	and vehicles.
		2) ToR on performance indicators
		to regularly monitor and evaluate
	Finance and Investment	effectiveness of the
	In-session workshop on enhancing finance	implementation of the technology
	and investment in support of mitigation and	transfer framework.
	adaptation, with particular attention to the	transfer framework.
	role of the private sector and innovative	- <u>SBI to consider</u>
	mechanisms	1) the GEF elaboration, in
	incentarisitis	consultation with interested
		Parties, IFIs, other multilateral
		organisations and the private
		sector, of a strategic programme to
		scale up level of investment for
		technology transfer.
		2) ToR for review and assessment
		of implementation of Articles 4.5
		and 4.1(c) of the Convention.
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18 July 2008	Further Submissions on issues on work programme for next session.	
	Financial Flows Paper update from the Secretariat, including detailed analysis of the potential of new mechanisms in relation to the finance and investment needs for adaptation and mitigation and making use of the in-session workshop outcomes.	
	Technical paper from Secretariat on mitigation potential of all Parties, and co- benefits of developing country action, based e.g. on IPCC AR4	

AWGLCA 3	Shared vision – 1(a) (continued)	AWG 6 (first part)
August /September		- conclusions on means available
2008	Mitigation	to AI Parties;
	Continuation of 1(b) (i), (ii) (iii), (iv), (v) in	- Initial consideration of
	particular:	potential environmental,
	1(b)(ii) – methodological issues (measuring,	economic and social
	reporting, verification)	consequences, including spill-
	1(b)(iv) – addressing emissions from	over effects on developing
	international aviation and maritime transport -	countries
	informed by ICAO and IMO reports	
	 approaches targeting sectoral emissions 	Adaptation
	1(b)(vi) – economic and social consequences	Take into consideration the
	of response measures (informed by	outcomes of the discussion on
	consideration of this issue under AWG 6 (first	Decision 1/CP.10 and on the
	part))	activities for the second phase of the
		NWP.
	Adaptation	
	1(c) (ii) – (iv)	
	Continuation of previous session, 1(c)(i), in	
	particular:	
	- financial needs assessments	
	- specific projects and programmes	
	 other ways to enable climate resilient development 	
	 means to incentivise the implementation of 	
	adaptation actions	
	Mitigation and Adaptation	
	In addition: consider $1(b)(vii)$ and $1(c)(v) -$	
	strengthening catalytic role of Convention	
	Technology	
	In-session workshop to consider:	
	- activities underway by Parties as well as by	

relevant activities by actors and processes outside of the UNFCCC on technology development and transfer; - status of international technology cooperation (including supporting activities, mechanisms and policy instruments for technology development and transfer), related to both mitigation and adaptation in different sectors and regions (or groups of countries); - progress report of the EGTT on identification and analysis assessment of existing and potential new financing resources and relevant	
vehicles. Finance and investment In relation to mitigation and adaptation Analysis of the updated technical paper by the Secretariat	

October 2008 tbc.		Workshop in Japan on REDD methodology
17 October 2008	Further Submissions on issues on work programme for next session, in particular on the review and stock take exercise	

AWGLCA 4	Shared vision	AWG 6 (resumed)
1-12 December 2008 (COP14)	High level Ministerial debate on the shared vision, including a long term goal for	 continue environmental, economic and social
2008 (COF 14)	emission reductions.	consequences work;
		- revert to mitigation potential and indicative ranges for AI
	Mitigation	Parties commitments (in-
	Continuation of 1(b) (i), (ii) (iii), (iv), (v), (vi).	session workshop);Initial consideration of the
	1(b)(i) and $(ii) - in$ session workshop on	scale of emission reductions
	mitigation potential of developed and	by AI Parties
	developing parties, organised jointly with	- consider 2009 work
	AWG 6 (resumed), to be considered in light	programme
	of 1(a) shared vision	Review of Kyoto Protocol
	Adaptation	pursuant to its Article 9
	Continuation of 1(c) (i), (ii), (iii), (iv)	1
		Review of the LDCF
	Technology	
	In-session workshop to take stock of work	Mitigation
	undertaken by the EGTT and Subsidiary	REDD – COP recommendations
	Bodies as well as making links to the work	on methodologies
	being undertaken outside the UNFCCC,	
	including:	Technology

 Analysis of financing resources and assessment of gaps and barriers to assessing finance Set of other actions and tools Performance indicators for monitoring and evaluating implementation Review of the implementation of Articles 4(5) and 4(1)(c), including Decision 4/CP.7 Finance In-session workshop on finance, with a view to integrating finance in relation with mitigation, adaptation and technology Input from other processes conform paragraph 11 of Decision 1.CP/13 Report to COP, stock taking exercise and determination of further work – conform paragraphs 9 and 10 of Decision 1.CP/13, and definition of further work in line with issues identified under paragraph 1 of 1.CP/13 Conclusions, including a focused list of options under each building block to be taken forward for work in 2009	 and transfer of technology to communicate to the secretariat by COP14. SBI to consider the progress report of Secretariat on the review of the implementation of Articles 4(5) and 4(1)(c), including Decision 4/CP.7
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13 February 2009	Further Submissions on issues on work programme for next session including taking into account any decisions by the COP or the COP/MOP on any relevant agenda items.	
AWGLCA 5 March/April 2009	Conform Decision at COP14	 AWG 7 (first part) continue scale of commitments of AI Parties and allocation of effort; consideration of legal matters Mitigation Possible workshop on REDD – positive incentives and policy approaches
24 April 2009	Further Submissions on issues on work programme for next session	

AWGLCA 6 May/ June 2009	Conform Decision at COP14	 AWG 7 (resumed) continue scale of commitments of AI Parties and allocation of effort; consideration of legal matters Technology EGTT to make available work on financing (identification, analysis, assessment) with a view to SBI consideration of the role of new financing mechanisms and tools for scaling up development and transfer of technologies
17 July 2009	Further Submissions on issues on work programme for next session	
AWGLCA 7 August /September 2009	Conform Decision at COP14	 AWG 8 (first part) continue scale of commitments AI Parties and allocation of effort; consideration of legal matters
16 October 2009	Further Submissions on issues on work programme for next session	
AGLCA 8 November/ December 2009 (COP15)	Agreed outcome on the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012	AWG agreement on further commitments by AI Parties Technology Final EGTT Report on performance indicators to be made available to the COP. Technology decision(s) on post 2012.

PAPER NO. 21: SRI LANKA

BALI ACTION PLAN

1 Views regarding the work program for the Ad hoc Working Group on Long Term Cooperative Action under the Convention taking into account the elements to be addressed by the group (Reference FCCC/CP/2007/L.7/Rev. 1)

1.1. We agree with the decisions of the Ad hoc Working Group on long term Cooperative Action under the Convention.

1.2 Sri Lanka wishes to request the AWG to establish a mechanism so as to enable the Annex I countries to contribute to the Adaptation Fund in a formal manner. We feel that it is necessary to have a mechanism which would facilitate channeling a significant portion of funds to the Adaptation Fund from the other two Kyoto mechanisms, ie. The Joint Implementation and Emission Trading.

1.3 Sri Lanka strongly supports any program for reducing emissions from deforestation in developing countries. We also feel that the AWG should explore CDM mechanisms to promote and facilitate conservation efforts of the forested nations who, through their own efforts over many decades, coupled with traditional indigenous practices, have been able to halt the rate of deforestation, thereby consolidating a permanent forest estate in respective countries. Therefore Sri Lanka hopes that in the CDM mechanism would be used to recognize the conservation efforts of forested nations, specially in developing countries.

Such an approach would be an incentive to protect the existing forest through local initiatives by the respective countries, as forests are continuing to be threatened in the face of the socio-economic constraints faced by these developing countries.

1.4 Sri Lanka is of the view that the currently used indices to gauge sustainable development, such as the Human Development Index are not appropriate as they do not have provisions for measuring the environmentally and ecologically sustainable development in countries.

Hence we would like AWG to support the establishment of a Sustainable Development Index where per capita CO2 emissions are considered as a major criteria, together with other criteria such as protected forest cover and biodiversity value.

1.5 During the first commitment period which is due to end by 2012, the expectations of the developing countries have not been thus far realized to their fullest satisfaction due to various barriers. While some of these barriers are due to inherent problems of the CDM process itself, some reflect the weak capacities of the countries concerned. This has resulted in inequitable distribution of CDM benefits, where countries like Sri Lanka have been at the loosing side. Therefore, Sri Lanka wishes to have some inbuilt mechanism to ensure equitable benefits on regional baiss to all developing countries.

1.6 In our view, one of the ways to ensure equitable distribution is through guaranteeing a certain quantity of CERs to each country over a specified time period. The determination of this guaranteed access to CERs may be undertaken through a transparent process which takes into account ht country's potential and readiness to participate in CDM activities rather than the market forces playing a major role. In the event a country is unable to make use of this quota during the specified period, they can be reallocated to other countries based on an agreed process.

1.7 We also expect that the AWG would decide upon having a uniform mechanism to evaluate the adverse environmental impacts caused by Climate Change in economic terms, especially in developing countries.

1.8 We believe that the technology transfer should not facilitate simply affordable technologies, which would be instrumental to dumping of obsolete technologies no longer used in developed countries. Rather, technology transfer should be on appropriate technologies that could be harmonized with the traditional knowledge and practices of developing countries, Furthermore, technology transfer should be supported by capacity enhancement to ensure long term sustainability.

1.9 With regard to funding for mitigation, adaptation and emission reduction, we are of the view that the Annex I countries hold the responsibility and moral commitment, jointly and separately for mitigation of the impacts of their historical emissions and for controlling their current high emissions.

Therefore, we hope that the AWG will facilitate policies to impose financial consequences on Annex I countries that are unable to attain the targets, and to use these funds for improving the standard of living through mitigation and adaptation measures, in developing countries.

PAPER NO. 22: SWITZERLAND ON BEHALF OF THE ENVIRONMENTAL INTEGRITY GROUP

VIEWS ON THE WORK PROGRAMME OF THE AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION UNDER THE CONVENTION (AWG-LCA)

Submission by the Environmental Integrity Group (EIG)

- The EIG welcomes the adoption of the Bali Action Plan (BAP) and the strong commitment of the international community to seriously engage in collective action to ensure the full, effective and sustained implementation of the Convention now, up to and beyond 2012. The EIG will constructively participate in the negotiating process and stresses the need to reach an agreed outcome for adoption at the Fifteenth session of the Conference of the Parties in 2009.
- 2. In order to effectively deliver, the Ad-hoc Working Group (AWG) objectives, it is essential to have a clear work programme with specific timetables and issues to be discussed at each session. The EIG is willing to contribute to the definition of such work programme and submits the present proposal.

BAP four pillars

- 3. To ensure an integrated and coherent programme of work, the four pillars identified in the BPA mitigation, adaptation, technology and finance shall be given the same importance during the discussions and be treated taking into account their close relationships. The pillars cannot be separated or discussed in a sequential form. At the same time and due to their crosscutting nature, it is advisable to begin discussions focussing on the pillars of finance and technology and their relevance in triggering additional actions by developed and developing countries to face climate change. Clear guidelines on these areas may facilitate further discussions on specific mitigation and adaptation measures by States Parties to the Convention in the context of a post-2012 regime.
- 4. The strategic topics that require priority consideration by the AWG-LCA in its work programme are:
 - Defining a shared vision on long-term cooperative action, including a long term global goal for mitigation
 - Defining short and medium term targets consistent with the achievement of the global goal
 - Sectoral and programmatic approaches and policy based commitments
 - Means for implementing, measuring, reporting and, when applicable, verifying actions undertaken to meet commitments in developed and developing countries, respectively.

- 5. In conducting its work on the strategic topics mentioned in the previous paragraph, the AWG-LCA has to take into account:
 - Comparability of efforts among developed countries
 - Potential and actual opportunities for action in developing countries
 - Policy approaches and incentives for Reducing Emissions from Deforestation and Degradation (REDD).
 - Engagement of different stakeholders in addressing climate change
 - Mainstreaming climate change in sustainable development policies and measures
 - Options for scaling-up the international financial response to climate change, including the design of new and expanded mechanisms for that purpose
 - Adequate mechanisms to promote technology transfer and development
 - Integrating inputs from complementary initiatives, workshops, dialogues and informal discussion processes into the negotiation.
- 6. In order to facilitate understandings and enable the AWG-LCA to deliver the expected outcome during the agreed time frame, in session and intersession workshops would be needed. Such workshops should be limited in number to ensure wide participation of interested Parties and shall be focused on specific technical issues with the aim of providing inputs to the negotiations. Other ways and means such as roundtables with the participation of relevant intergovernmental and international organisations and the private sector may be envisaged, as appropriate.

PAPER NO. 23: TURKEY

VIEWS OF TURKEY REGARDING THE WORK PROGRAM OF THE AD HOC WORKING GROUP ON LONG TERM COOPERATIVE ACTION UNDER THE CONVENTION

Turkey welcomes the initiation of a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action in order to reach an agreed outcome and adopt a decision at its fifteenth session, and is looking forward to working constructively with other Parties through the "Ad Hoc Working Group on Long-term Cooperative Action under the Convention" (AWGLCA) established by Bali Action Plan.

Turkey supports international cooperative action for future climate regime which should

- reflect the Convention's principles,
- facilitate and motivate involvement of all Parties,
- address different national circumstances of the Parties and adaptation needs particularly for those highly vulnerable,
- distribute responsibilities fairly and
- support economies for a low-carbon path through technology transfer and financial incentives.

Turkey believes that the negotiations should be conducted taking into account the following matters:

1) Developed and Developing Country Parties and Turkey's Case

UNFCCC categorizes the Parties, as Annex and non-Annex countries. However, the status of the Parties in the Annexes does not reflect the current industrialization level of the Parties. There are non-Annex Parties who are expected to have the highest greenhouse gas (GHG) emission levels in the years ahead, moreover, there are those who, though having become OECD countries after becoming Party to the Kyoto Protocol, don't belong to any of the Annexes.

Turkey, although being an OECD country, is neither a developed industrialized country nor in the group of countries, the economies of which are in transition. Special circumstances of Turkey, which place Turkey, in a situation different from that of other Parties included in Annex I to the Convention was recognized in the 7th Conference of the Parties (COP-7) held in Marrakesh in 2001, which also deleted its name from Annex II. Some might say that the Marrakesh decision improved the status of Turkey. However, the most realistic solution would have been to be deleted from both Annexes. Turkey's status as an Annex-I Party in the framework of the Convention, doesn't reflect its actual industrialization level. Turkey is in a *sui generis* situation vis-à-vis the current international climate change regime.

Therefore, the current classification of countries fails to reflect the constantly changing economic development level of Parties. The present Annexes must change. The post-2012 regime should reclassify the countries, on the basis of their changing development levels, instead of merely listing them as Annex and non-Annex Parties. A multi-parameter approach should be used for

categorization and this approach should include factors such as per capita income, energy use, energy intensity, Human Development Index and historical responsibility. Furthermore, a mechanism for the regular review of the development level of countries should be introduced.

2) Political Negotiating Groups and Turkey's Case

Turkey is not party to any of the political negotiating groups that are active and effective within the climate change conferences under UN. This is partly because of its status as an Annex-I country and a negotiating country for full membership to EU. This situation has so far prevented Turkey from expressing its opinions, making its contribution to the process, putting forward its official position effectively as well as developing its strategy in line with its national circumstances by exchanging information and ideas with other countries.

Although Turkey is party to the UNFCCC, Turkish delegation's participation in the negotiations during the UN Climate Change Conference held in Bali was only partly achieved due to this problem. Therefore, Turkish government expects that this problem should not be experienced again in the forthcoming negotiations.

Necessary arrangements need to be done prior Bangkok meetings. This is of utmost importance for Turkey's full and effective participation in the negotiations

3) Base Year

The Convention foresees flexibility in determining the base year as a reference to mitigation (Art. 4.6) only to those countries, the economies of which are in transition (actually most of them are EU members). However, all countries should be allowed to determine their base year on the basis of a new approach that will take into account their national circumstances.

In the case of Turkey, formulating quantified commitments on the basis of 1990 GHG emission levels under the new agreement would be problematic as emissions increased by almost 70% between 1990 and 2004, due to the acceleration of industrialization since the mid-1990s. Turkey, paying utmost importance to its sustainable development is yet to make vital big investments in energy and industry sectors. Therefore, Turkey cannot envisage quantified GHG emission reductions in the short term as the increase in GHG emissions will continue along with the accelerated industrialization. The GHG emissions can only be reduced in the long term on the basis of a convenient base year which needs to be determined.

4) GHG Emission Reduction, Limitation Commitments or Actions

Turkey believes that the determination of measurable, reportable and verifiable nationally appropriate mitigation commitments or actions among the countries within the context of common but differentiated responsibilities and respective capabilities remains as the most challenging issues in climate negotiations.

There is neither an agreed methodology for establishing the commitments of the Parties nor an agreed common analytical base. It is important to establish an objective system which consists of

quantifiable economic, social and technological parameters in this respect. Some of these parameters could be, and not limited to, GDP per capita, primary energy consumption per capita, R&D expenditure, emissions per capita, population growth and human development index.

The feasible mitigation potentials of the developed country Parties can be determined for the carbon intense sectors and these Parties can prepare and submit "National Mitigation Actions Communications".

It is also crucial to establish comprehensive incentive mechanisms which can promote mitigation actions and enable capacity building, financing and technology transfer to the developing country Parties.

5) Adaptation

While mitigation is one of the major aspects of the fight to limit global temperature increase, the adaptation to climate change is equally important and constitutes a demanding agenda for developing countries like Turkey.

Adaptation actions need to be implemented urgently for all countries. The vulnerability assessments and adaptation action plans should be promptly prepared and integrated into national and sectoral development plans. In this framework, developed country Parties should continue supporting the developing and most vulnerable countries in their fight against climate change by enabling technology transfer and financial investment.

New policies and tools need to be developed. COP.13 decision regarding the Adaptation Fund is established for the vulnerable developing Kyoto Protocol Parties. Turkey believes that, the very first condition of utilizing this fund should not be based on being a Party to Protocol, instead, the necessary conditions can be listed as vulnerability to the adverse effects of climate change, level of associated risks and the financial capacity of the Convention Parties to cover the adaptation costs.

6) Technology Development and Transfer

The mitigation and adaptation potentials of the technologies are needed to be identified and a cooperation mechanism should be established between developed and developing countries to facilitate technology development and transfer. The obstacles are required to be clarified and removed to promote and accelerate transfer of environmentally sound technologies.

We believe that a technology transfer fund will be very supportive for the developing country Parties. The steps to utilize this fund should be constructed to enable easy and fast access to all developing countries regardless of their status in the Annexes.

7) Finance and Investment

It is a fact that combating climate change is not an easy task to be achieved by developing countries by themselves. Developing country Parties need positive incentives for the enhanced implementation of national mitigation strategies and adaptation actions, and need resources to meet the cost of adaptation. Thus, Convention Parties are compelled to cooperate with one another and with international organizations. In addition, to enhance the participation of private sector and to mobilize the necessary financial resources and investments, a common stance is needed. In this regard, the sources at the disposal of developed country Parties should be adequately allocated for the necessary actions.

Access to financial mechanisms is important for Turkey in enhancing its national capacity to address mitigation and adaptation needs. It is evident that Turkey's sustainable development will depend on its adaptive capacity to climate change and financial support is needed to make the necessary investments for adaptation. Thus, Turkey should be able to use the financial mechanisms of the new agreement.

8) Flexibility Mechanisms

In terms of basic economic indicators, Turkey's level of industrialization is not yet at the same levels of the majority of Annex I countries. Turkey is a developing country and under the new agreement should be regarded as such.

Having stated above, Turkey should be able to benefit from flexibility mechanisms as a developing country, such as hosting Clean Development Mechanism (CDM) projects. The CDM has proven to be a successful instrument to help countries meet their Kyoto targets and to generate significant additional financial flows to developing countries for climate-friendly projects, thereby considerably changing GHG emissions in some sectors. Since Turkey is not Party to the Kyoto Protocol, currently it is not able to benefit from this mechanism. We are of the opinion that in the new agreement, mechanisms like CDM should be available for Turkey, together with other developing countries.

9) New Ideas to Come

The above mentioned comments are our initial contribution. It's only natural that in the course of the negotiations, Turkey will make further suggestions.

SUBMISSION OF THE UNITED STATES UNDER THE BALI ACTION PLAN DECISION 1/CP.13

The United States shares the enthusiasm of those who consider that the Bali Conference, particularly the Bali Plan of Action, constituted a breakthrough in terms of a global approach to addressing climate change. Among other things, Bali's pointing toward "measurable, reportable, and verifiable" nationally appropriate contributions from all countries is a welcome advance in the international community's approach to the issue. The United States looks forward to working intensively and collaboratively with other Parties within the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) to successfully conclude an "agreed outcome" and adopt a decision at the fifteenth session of the Conference of the Parties (COP 15) in 2009.

As an overarching matter, the United States considers that the "agreed outcome" needs to be one that is environmentally effective, economically sustainable, and furthers sustainable development. Achieving these objectives will be a challenge. As just one example, environmental effectiveness requires national undertakings and review mechanisms that must strike a balance in that they must be serious and ambitious but not too onerous or unrealistic such they deter the participation of critical countries. Achieving this balance will require innovative and constructive approaches. Creative thinking will also be required for particular issues where past approaches may no longer be adequate.

The United States welcomes the opportunity to provide preliminary views of both a procedural and substantive nature and looks forward to learning from the views of others.

Procedural Views

Operative paragraph 7 of Decision 1/CP.13 instructs the AWG-LCA "to develop its work programme at its first session in a coherent and integrated manner." Given the limited time available for the AWG-LCA to complete its work, the United States believes it is crucial that Parties adopt its work programme at its first session. We propose that the AWG-LCA meet as often as is necessary over the five-day period March 31-April 4, 2008—both formally and informally—to accomplish this task.

It is our view that the AWG-LCA's work programme should include "what" needs to be addressed, "when," and "how."

In terms of "what" needs to be addressed, we believe the work programme should give appropriate and balanced emphases to each of the five elements identified in operative paragraph 1 of Decision 1/CP.13: (1) "A shared vision for long-term cooperative action, including a long-term global goal for emission reductions, to achieve the ultimate objective of the Convention, in accordance with the provisions and principles of the Convention, in particular the principle of common but differentiated responsibilities and respective capabilities, and taking into account social and economic conditions and other relevant factors;" (2) "Enhanced national/international action on mitigation of climate change"; (3) "Enhanced action on technology development and transfer to support action on mitigation and adaptation"; and (5) "Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation". In this context, we suggest that the AWG-LCA provide in its first session an initial opportunity for Parties to discuss these elements to gain a common understanding of each.

In terms of "when," we are flexible regarding the ordering of agenda items. We are also flexible as to whether all agenda items are taken up at every session. We should work to identify and clarify important issues early in the discussions.

In terms of "how," the United States seeks to use the limited time for this process as efficiently as possible. As noted above, we believe it is crucial for Parties to agree on the AWG-LCA work programme at its first meeting and to spend subsequent efforts in substantive discussions.

Also in terms of "how," we note that many delegations in Bali supported the usefulness of informal discussions in addition to formal negotiations. The United States sees value in this suggestion, recalling that the discussions under the Dialogue helped to create a common understanding and built confidence on a range of issues, and helped lay the groundwork for agreement in Bali. We are flexible as to how these informal discussions would occur. One possibility is through in-session workshops and other activities, as mentioned in operative paragraph 3 of Decision 1/CP.13. Targeted opportunities to discuss specific issues related to the negotiations (*e.g.*, sectoral approaches), perhaps with the participation of outside experts, could facilitate the exchange of views and sharing of information among Parties and thereby advance the negotiations.

We are also open to considering various approaches concerning the manner in which issues are discussed (e.g., in one group or more than one group), provided related issues are appropriately combined. For example, funding and technology transfer issues would logically need to take place in the context of developing country actions, rather than in a vacuum.

In terms of efficiency, ongoing work streams on several issues (*e.g.*, adaptation, technology transfer, capacity-building, and developing country forests and land uses) need to be rationalized in light of the Bali Plan of Action.

In terms of both transparency and fostering an agreed outcome that is maximally acceptable, input from important stakeholders will be essential. Promoting a two-way dialogue with the UN at large will be a valuable component of ascertaining the contributions the UN system can make with respect to the various Bali elements.

In regards to other input into the negotiating process, the United States appreciates the recent remarks of the Executive Secretary concerning the anticipated contribution of the Major Economies Process in taking the Bali decisions "to the next stage" in a number of key areas. It may also be useful for the AWG-LCA to request input from other relevant processes, including, for example, processes under the Convention (such as requesting the co-chairs of relevant SBSTA and SBI agenda items to provide input on how those agenda items may relate to the work programme of the Bali Action Plan) and outside the Convention (such as requesting the International Energy Agency to provide input on mitigation potentials in various sectors).

Substantive Views

Before turning to particular elements of the Bali Action Plan, the United States considers that it is important to step back from the specifics and consider the big picture: What are our objectives in designing an agreed outcome and what lessons can be learned from past experiences?

In our view, the structure and content of the agreed outcome should have certain design features:

• The agreed outcome needs to be **attractive** to countries, so that it invites, rather than dissuades, widespread participation – particularly from the world's major economies. As

such, it will need to accommodate a wide range of national circumstances and approaches. This concept is reflected in several places in the Bali Plan of Action.

- We are also convinced from past experiences that the agreed outcome should aim to be **simple** and **practical**. Complicated approaches can be time-consuming and have a chilling effect on both participation and implementation. In addition, not all actions have to be contained under the UNFCCC. The UNFCCC can and should facilitate and provide recognition for the results of domestic, bilateral, and multilateral activities undertaken elsewhere. In some cases, it may be most appropriate for some activities to be undertaken in other multilateral fora, in a manner consistent with the objective of the UNFCCC.
- As noted above, the agreed outcome should be **creative**. We should not be bound by previous ways of looking at things. In this regard, the outcome should be sufficiently flexible to permit new ideas and approaches to be introduced as they emerge over time.

It is also important to bear in mind the evolving context of these negotiations. The world in 2008 is different from the world in 1992 in important ways. Just as we take account of changes in science with subsequent IPCC reports, so should we take into account evolving global emissions and economic development trends, which are vitally important as we seek to ensure that this global issue is being addressed in an environmentally effective and economically sustainable manner.

Specific Substantive Views

Considering the Bali Action Plan elements in turn, the United States welcomes the opportunity to discuss a "shared vision" for long-term cooperative action, including a long-term global goal for emission reductions.

As noted in operational paragraph 1(a) of Decision 1/CP.13, the "**shared vision**" is to be drawn up in accordance with the principle of common but differentiated responsibilities and respective capabilities. This core principle from Article 3 of the UNFCCC stands the test of time, in that the notions of "responsibilities" and "capabilities" evolve as the circumstances of countries evolve in the global economy, while the principle stays the same. (See points above about changed circumstances since 1992.)

As part of the shared vision, the United States strongly supports the identification of a **long-term global goal for emission reductions** to inspire actions at all levels. Such a goal should be realistic, and be calibrated by taking into account factors such as science and likely technology development and diffusion. The goal should not be used as a basis for burden sharing. In addition, we want to ensure that any long-term goal is cast so as to ensure that global economic development – the necessary antecedent of investments in climate protection – is not undermined, as underscored in Article 2 of the Convention.

Consistent with the Bali outcome, we see discussions on **mitigation** focusing on nationally appropriate actions that are measurable, reportable, and verifiable. Meaningful contributions from countries with a significant emissions profile will be critical to achieving an environmentally-effective outcome. The United States underscores that any future arrangement must reflect the desires of developing countries and indeed all countries to grow their economies, develop on a sustainable basis, and have access to secure energy sources.

The United States strongly supports the inclusion of **sectoral approaches** in an agreed outcome, both to ensure that such an outcome is able to capitalize on likely "win-win" opportunities in a number of sectors and as a way of providing flexibility for countries with different circumstances in contributing to the

ultimate objective of the Convention. Disaggregating the climate challenge by sectors and sources will enable prioritization, facilitate agreement and allow Parties to focus on the specific technology and substitutes needs for each. Sector-based actions should involve a critical mass of Parties that account for most of the output of a particular sector and could take a variety of forms, depending on the sector and source. There are clearly a range of possible sectoral approaches that could be explored.

On **adaptation**, the United States notes that mitigation and adaptation are distinct issues with different actors and constituencies, both at the international and national levels. The mitigation effort is necessarily collective and designed to reduce the need for adaptation over time. Adaptation, by contrast, will occur at national, regional, and local levels, is an inherent part of development planning at these levels, and also involves countries or populations that contribute few greenhouse gas emissions. Article 4, paragraph 1 (e) of the Convention calls on all Parties to cooperate on adaptation, and the United States considers this an important component of the climate effort. We believe that discussions over the next two years can do much to orient actions at local, regional, national and global levels toward greater attention to adaptation, and to generate resources for these efforts for those countries that are most vulnerable to the impacts of climate change.

Technology development and deployment will be a decisive factor in how quickly and cost effectively climate change can be addressed. The United States is prepared to do its part in supporting and encouraging necessary advancements in technology. Countries need to dramatically scale up investments in technology research and development. The UNFCCC process should take a practical approach to considering mechanisms and tools for enhancing technology research and development, recognizing that these mechanisms need not be contained within the Convention. The process should also consider practical means to overcome barriers to effective technology deployment, diffusion and transfer, including for currently available technology. One immediate opportunity that exists for all countries is the elimination of tariff and non-tariff barriers to clean energy technologies, which – it has been estimated by the World Bank – could increase trade in certain clean technologies by up to 14 percent annually, on top of the 18 percent average annual growth rate in world exports of these clean technologies since 2000. This would not be achieved in the UNFCCC, but is an example of how discussions on climate can catalyze progress in other areas.

Financing will also be critical to advancing climate solutions. Financing will not be limited to that under the UNFCCC financial mechanism, but will be generated outside the Convention – both domestically in developing countries and through bilateral and other arrangements – and will rest in large part on the effectiveness of investment environments and institutional arrangements in developing countries involved in the mitigation effort. In the future, we believe that financing for mitigation can support more comprehensive and coherent national actions initiated by countries as part of future arrangements. It will be important to find a way to maximize the opportunities available to undertake measures that are already available to all countries to reduce greenhouse gases at relatively low net economic cost, as well as those measures that have considerable local and national benefits to energy security, environmental improvement and pollution reduction.

Finally, the United States reserves the right, and respects the right of other Parties, to refine its views and introduce topics not yet on the table (noting the open-ended nature of the Bali Plan of Action).

The United States looks forward to a busy, intense, and essential period of negotiations to complete an agreed outcome by 2009.

PAPER NO. 25: URUGUAY

BALI ACTION PLAN

Following the invitation contained in the document FCCC/CP/2007/L.7/Rev1, paragraph 8, Uruguay would like to present its views regarding the work programme for the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention taking into account the elements to be addressed by the group.

Uruguay strongly believes that adaptation is an essential component of this comprehensive process, the Bali Action Plan.

In this framework, adaptation actions should address all Parties, especially developing countries which sustainable development depend on a great extent on their natural resources such as coastal resources, agriculture and water resources, and at the same time are extremely vulnerable to the adverse effects of climate change.

Uruguay also considers that in order to successfully implement adaptation actions, including the management of the necessary financial assistance, it is very important to involve in an integrated way and from the beginning the productive sector, the tourism sector (including infrastructures and related services) and the social component related with the human settlements.

Uruguay thinks that the coordination of actions between the strategies for risk management and adaptation to climate change is a key element to enhance action on adaptation. A first step towards the promotion of linkages between aforementioned initiatives was the Workshop on Vulnerability and Adaptation Assessments and Climate Risk Management for Latin American Countries, held in Montevideo, Uruguay on August 2007. In this context, one of the main results was the need to facilitate capacity building activities in order that both communities have a common understanding of concepts and knowledge.

Finally, Uruguay believes it is very important to replicate such initiative within other regions as well as to share the results and lessons learned among the regions.

PAPER NO. 26: UZBEKISTAN

VIEWS OF THE REPUBLIC OF UZBEKISTAN REGARDING THE WORK PROGRAMME OF THE AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTIONS UNDER THE CONVENTION

We would like to submit our recommendation regarding the work programme of the AWG - LCA within 4 building blocks of the long term cooperative actions:

Mitigation

Analyze mitigation potential of Annex I parties and identify possible ranges of their reduction objectives.

Develop a list of countries highly vulnerable to the impact of climate change according to the IPCC for providing support through Adaptation Fund and other financial mechanisms.

Investigate options for developing countries to participate in global carbon market, enhanced and additionally created mechanisms, sustainable policies and measures and enhanced technological cooperation.

Analyze the opportunities to enhance the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Develop recommendations on establishing sectoral system of target quantitative indicators of "clean development".

Adaptation

Identify ways to strengthen international cooperation in implementation of adaptation actions, including through vulnerability assessments, prioritization of actions, capacity-building and response strategies.

Improve guidance for adaptation planning at the national level.

Provide for recommendations on integration of adaptation actions into sectoral and national planning.

Improve and disseminate risk assessment tools and methods to address climate change-related health threats.

Assess the links between disaster risk reduction strategies and adaptation.

Technology Transfer

Propose how to accelerate the transfer of ESTs and know-how.

Facilitate the introduction of the initiatives by Annex I countries to assist non-Annex I countries in technology development and deployment of strategies for key sectors.

Analyze the reasons of low efficiency of TNAs conducted by developing countries and low rate of financing of the technology transfer project proposals, and recommend measures to improve the situation.

Review the Research and Development (R&D) activities in developing countries and the opportunities to jointly participate in such R&D activities, as well as the main barriers to it.

Assess the level of involvement of carbon funds in financing technology transfer projects.

Analyze the scope of CDM project implementation by non-Annex I countries as an activity relevant to technology transfer.

Financing

Elaborate proposals to establishing an effective mechanism to provide financial resources and technology transfer to developing countries to enable them make greater contributions to addressing climate change.

Establish cooperation with Adaptation Fund for consolidated efforts on financing adaptation projects and programmes in developing countries.

Prepare an in-depth review of international financing institutions that are capable to provide a venture capital for investment of technology transfer projects, which have risks higher than in common investment projects but also high development potential.

Study and further develop innovative means of funding to assist developing countries in meeting the cost of adaptation.

Review measures on mobilization of public- and private-sector funding, including facilitation of carbon-friendly investment choices.

Analyze options of financial and technical support for capacity-building in the assessment of the costs of adaptation in developing countries.

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