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#### UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

SUBSIDIARY BODY FOR IMPLEMENTATION Eighteenth session Bonn, 4–13 June 2003 Item 6 (a) of the provisional agenda

# IMPLEMENTATION OF ARTICLE 4, PARAGRAPHS 8 AND 9, OF THE CONVENTION PROGRESS ON THE IMPLEMENTATION OF ACTIVITIES UNDER DECISION 5/CP.7

#### Further views relating to progress in the implementation of decision 5/CP.7

#### **Submissions from Parties**

- 1. The Subsidiary Body for Implementation (SBI) at its seventeenth session, invited Parties to submit, by 15 April 2003, further views relating to progress in the implementation of decision 5/CP.7, and decided to consider those views, and those contained in document FCCC/SBI/2002/MISC.3 and Add.1, as well as the outcome of the workshop on the status of modelling activities referred to in paragraph 33 of decision 5/CP.7, at its eighteenth session (FCCC/SBI/2002/17, para. 39 (f)).
- 2. The secretariat has received four 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.

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

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### PAPER NO. 1: GREECE ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

#### **Submission on implementation of 5/CP.7**

On behalf of the European Community and its Member States, Greece welcomes the opportunity to present its views, as requested in FCCC/CP/2002/xx, on issues related to progress in the implementation of decision 5/CP.7.

The EU considers work on the implementation of decision 5/CP.7 to be an important part of the continuing work on the Marrakech Accords and looks forward to the discussions on this item planned for the 18<sup>th</sup> and 19<sup>th</sup> sessions of the Subsidiary Body for Implementation.

The EU believes that the successful and substantial 3<sup>rd</sup> replenishment of the GEF is an important contribution to the effective implementation of activities mentioned in 5/CP.7. The work developed by the GEF for the establishment of the new climate change funds and other bilateral and multilateral sources, is important in the implementation of the decision.

The EU welcomes the work undertaken in the implementation of decision 5/CP.7 particularly the establishment of a working LDC fund, development of guidelines for NAPAs, and the useful work of the LDC Expert Group. In this context the EU welcomes the opportunity to express views on the Special Climate Change Fund.

The EU would like to reaffirm that actions related to 5/CP.7 should follow an assessment and evaluation process based on needs expressed in National Communications and/or NAPAs while ensuring that these actions are environmentally sound and lead to benefits in support of sustainable development and poverty reduction.

The EU welcomes the fact that the secretariat has arranged workshops on insurance and risk assessment and insurance related actions under decision 5/CP.7 to take place before SBI18 and other workshops before COP9. The EU will play a full role in these workshops.

#### PAPER NO. 2: SAUDI ARABIA

#### <u>SUBMISSION BY SAUDI ARABIA</u> MODELING THE IMPACT OF RESPONSE MEASURES

Saudi Arabia would like to thank the Secretariat for organizing the workshop on the status of modeling activities to assess the adverse effects of climate change and the impact of implemented measures in Bonn, 16-18 May, 2002, pursuant to paragraph 33 of Decision 5/CP.7. We are very concerned that no actions were taken on the outcomes of the workshop so far. Therefore, we would like to suggest that the secretariat address this input when:

- I. Preparing the synthesis on the research and systemic observation or to be included as part of the contribution from UNFCCC on this issue.
- II. Preparing elements of a decision on the progress of 5/CP.7 by COP-9.
- III. There are any future cooperation between UNFCCC and IPCC. These elements must be part of any future agreement between the IPCC and the UNFCCC.

#### **Modeling Concerns**

We note that even though some progress has been made, additional advances in modeling will be needed to provide sufficient insight into the impact of implemented response measures. The following are some concerns that need to be addressed by the SBSTA, IPCC, and the research community:

- 1. Modeling the impact of response measures are needed to assist Non-Annex I countries. The Third Assessment Report suggests that there may be adverse impacts of response measures on developing countries, and further modeling work is needed to determine, with less uncertainty, the magnitude of the impact of response measures and to assess the impacts of response measures on individual countries. To this end, a specific chapter in the fourth assessment report of the IPCC must be dedicated to modeling the impacts of response measures on developing countries
- 2. Furthermore, in modeling and assessing the effects of policies, such factors as market approaches (taxes, subsidies, cap-and-trade), regulations and research and development need to be included in simulation. The international research community need to address the major constraint for assessing the above factors, i.e.:
  - a. The incomplete data on specific policy information and a lack of methods to parameterize them properly.
  - b. The interactions between multiple policies-either within or across countries which are not fully understood.
  - c. The inadequate assessment of technology development. And
  - d. The testing of models against present day observations.
- 3. The international research community needs to address conceptual modeling challenges, in order to determine the impact of response measures. It is necessary to address the following issues:
  - e. How to compare current economic conditions with those of an idealized world in which no measures are undertaken?
  - f. How can we overcome the normative analyses of response measures the implications of policies not yet implemented for developed countries?
  - g. What are the needed approaches to further improve existing models with regards to types of policy covered, the gases modeled and how to model trade policies and their effects, among others?
- 4. Address the inability to fully disaggregate the impacts of a suite of climate change measures and mechanisms given the intricate linkages between national and international economies, the complexities among sectors and the transdisciplinary nature of such impacts. On the other hand,

existing models may serve as a useful basis for future work in meeting the analytical needs of developing countries.

- 5. The greatest benefit of economic modeling is that it provides a structured framework for organizing data and ideas, but there is substantial uncertainty associated with the results of such modeling exercises as a result of data gaps, model structure inadequacies and the incomplete analytical framework for evaluating the impacts of response measures. What is needed for such models to have reliable values of the absolute quantitative outcomes of models and have significance of individual quantitative calculations?
- 6. The international research community need to address difficulties associated with the use of such models, relating to availability of comprehensive data sets, the validity of assumptions and the compatibility and applicability of these assumptions to the modeling exercise, verification, quantifying the economic impacts associated with the different policies and policy instruments (fiscal, monetary, regulatory) and separating climate policy consequences from consequences of other policies (energy, environment, social). Approaches to modeling should focus on the impact of individual policies but should also address packages of policies. At the moment, most approaches focus on a portfolio of policies covering all sectors.
- 7. The international research community needs to continue and promote research on improving model quality by building upon the work already compiled by the IPCC in the Third Assessment Report. The IPCC should increase the participation of developing country experts in the preparation of future IPCC assessments on modeling activities.

#### PAPER NO. 3: SAUDI ARABIA

## SAUDI ARABIA SUBMISSION ON THE PROGRESS OF THE IMPLEMENTATION OF ACTIVITIES UNDER DECISION 5/CP

The Kingdom of Saudi Arabia is strongly concerned with the implementation of Article 4, Paragraph 8, of the Convention. So far, almost no progress has been accomplished on the implementation of the aforementioned Article and the Paragraph since the Convention was entered into force on March 21<sup>st</sup>, 1994. The only action that we feel is a step as part of many is the decision 5/CP.7. We are even concerned with the implementation of this small step. So far we have only addressed the workshop on the status of modeling activities to assess the adverse effects of climate change and the impact of implemented response measures (FCCC/SBI/2002/9), pursuant to paragraph 33 of decision 5/CP.7. The concern is that even the outcomes of this workshop were not addressed by the COP, no recommendations based on these outcomes were proposed for implementation by both subsidiary bodies. Furthermore, so much work needs to be achieved and accomplished relating to issues under Article 4, Paragraphs 8 and 9 of the Convention. (Paragraphs 34, 35, 36 and 37 of decision 5/CP.7) have not been initiated yet and they are behind their scheduled dates.

Saudi Arabia believes that progress on the implementation of the subject Article and the Paragraph in interest as well as the activities under decision 5/CP.7 and subsequent workshops outcomes will not be facilitated and accomplished unless actions are taken by SBSTA, SBI and the UNFCCC secretariat. A new decision must be formulated by the Conference of the Parties at its 9<sup>th</sup> session incorporating all of the mentioned issues, in particular:

- 1. Progress on paragraphs 19 31 of decision 5/CP.7
- 2. Actions by SBI and SBSAT on outcomes of the modeling workshop
- 3. Actions by SBI and SBSTA on assessments of approaches to minimize the adverse effects of response measures on developing countries;
- 4. Actions by the COP on insurance to address the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and from the impact of the implementation of response measures,
- 5. Actions by the COP on economic diversification to address the specific needs and concerns of developing country Parties arising from the adverse effects of the impact of the implementation of response measures.
- 6. Actions by the CDM executive board

#### 1) SBI's ACTIONS

The Subsidiary Body for Implementation (SBI) needs to address the following issues and incorporate the following elements in its recommended decision to COP-9 for parties to fulfill their commitments outlined in Article 4.8 and decision 5/CP.7:

#### 1.1) Communication

The Conference of the Parties should take a decision directing its Subsidiary Body for Implementation to further develop existing guidelines for Annex I and Non-Annex I for Parties to fully implement Article 4, Paragraph 8 of the convention, as well as the activities under decision 5/CP.7,

#### 1.2) Funding

#### 1.2.1) GEF-Related Funding:

The following Paragraphs of Decision 5/CP.7 can be funded through GEF and it should be included in the guidance for GEF:

• Non-Annex I Parties should provide information, in their national communications and/or other relevant reports, on their specific needs and concerns arising from the impact of the implementation of response measures (Paragraph 20 of 5/ CP.7),

#### 1.2.2) Special Fund Related Funding

The following Activities mentioned in decision 5/CP.7 can be funded under the Special Fund:

- 1. Annex I and non-Annex I Parties should cooperate in creating favorable conditions for investment in sectors where such investment can contribute to economic diversification;
- 2. Annex II Parties should assist developing countries, in particular those most vulnerable to the impact of the implementation of response measures, in meeting their capacity-building needs for the implementation of programs which address these impacts;
- 3. Parties to cooperate in the development, diffusion and transfer of less greenhouse gasemitting advanced fossil-fuel technologies, and/or technologies relating to fossil fuels, that capture and store greenhouse gases, and requests Annex II Parties to facilitate the participation of the least developed countries and other non-Annex I Parties in this effort (Paragraph 26 of 5/CP.7)
- 4. Parties should consider appropriate technological options in addressing the impact of response measures, consistent with national priorities and indigenous resources;
- 5. Parties should cooperate in the technological development of non-energy uses of fossil fuels. Annex II Parties should support developing country Parties to this end;
- 6. Annex II Parties should provide financial and technological support for strengthening the capacity of developing country Parties identified in Article 4, paragraphs 8 and 9, of the Convention for improving efficiency in upstream and downstream activities relating to fossil fuels, taking into consideration the need to improve the environmental efficiency of these activities:
- 7. Annex II Parties should promote investment in, as well as support and cooperate with developing country Parties in the development, production, distribution and transport of indigenous, less greenhouse gas-emitting, environmentally sound, energy sources according to the national circumstances of each of these Parties;

#### 1.3) Transfer of Technology

SBI should also recommend that actions related to transfer of technology under Article 4.5 should also take into account the needs and concerns of developing country parties related to minimizing the adverse effects of climate change and the impacts of response measures.

#### 2) SBSTA's ACTIONS

Article 4.8 presents many scientific and methodological questions as well as issues that require international cooperation in research and development that need to be addressed. Since the completion of the Marrakech accords, only one workshop in modeling took place and no actions were taken on its outcomes. There are two workshops that need to be held as soon as possible and actions on them to be taken as soon as possible:

1. A workshop on insurance to address the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and from the impact of the implementation of response measures,

2. A workshop on economic diversification to address the specific needs and concerns of developing country Parties arising from the adverse effects of the impact of the implementation of response measures.

The following are some further actions that need to be addressed by SBSTA:

#### 2.1) Methodologies

SBSTA need to address some methodological issues related to the impact of response measures under Article 4, Paragraph 8 of the Convention. These are as follows:

- Implementing Win/Win Policies and Measures: Methodologies are needed to guide Annex I countries in implementing win-win policies and measures that would meet both the need to reduce emissions and the need to minimize adverse social, environmental and economic impacts on developing country Parties, especially those identified in Article 4, paragraphs 8 and 9 of the Convention. This could be accomplished within the framework of actions taken on policies and measures by SBSTA and should be of high priority since no methodological work is established under Article 4, Paragraph 8 on impacts of response measures.
- Assessing terms of trade and socio-economic impacts on individual developing countries: There is urgency for methodologies to assist developing countries to examine their vulnerability to terms of trade and socio-economic impacts. This should benefit and improve the effectiveness of current activities for assessing the impact of implemented response measures in a portfolio of approaches; such as:
  - h. Data sets:
  - i. Development of assumptions that are widely accepted based on standardized approaches so as to improve the effectiveness and speed of the process and reduce costs;
  - j. Verification of existing data;
  - k. Improving models so that they can address implemented rather than potential policies and measures:
  - 1. Establishment of baseline data.

Furthermore, in assessing the effects of policies, such factors as market approaches (taxes, subsidies, cap-and-trade), regulations and research and development need to be included in the assessments. This should be developed by SBSTA in collaboration with international organizations such as UNDP, and OPEC and should be of high priority since many developing countries are starting to work on their second national communications.

Assessing the impacts on developing countries of policies already implemented by Annex I Parties: Methodologies are needed to assess the impacts of policies already implemented by Annex I parties on developing countries. In order to do so, current models for evaluating the effects of response measures need to be expanded in their coverage of countries and of issues. The objective should not be to determine which model or group of models is more advanced, but rather to agree on which existing models can be used as part of a portfolio of tools for decision-making. This should be developed by SBSTA in collaboration with International Organizations such as OPEC and should be also of high priority since the Convention is in force and many Annex-I countries have submitted national communications outlining their policies and measures. In addition, the Kyoto Protocol may enter into force soon and many policies and measures will have negative impacts on many developing countries.

#### 2.2) Policies and Measures

- The secretariat need to update FCCC/SBSTA/2002/INF.13 to take into consideration Article 2.3 of the Kyoto Protocol when compiling the policies and measures of NC3 (FCCC/SBSTA/2002/6, para 66 (c)). The current report has not addressed Article 2.3. The secretariat needs to assess the impacts of these policies and measures on the developing countries.
- SBSTA needs to promote the exchange of information on win-win type policies and measures that needs to be exchanged where they can be effective in reducing greenhouse gases and at the same time effective in minimizing impact on developing countries. Hence, actions should be taken immediately related to evaluating the impact of policies and measures mentioned in FCCC/SBSTA/2002/INF.13 on developing countries with a view to identifying win-win policies as mentioned earlier.

#### 2.3) Cooperation with other organizations and the Research and Systemic Observation

Address the issues raised in the modeling workshop on the impact of response measures.

The following are some concerns that should be addressed by the SBSTA, IPCC, and the research community:

- 1. Modeling the impact of response measures is needed to assist Non-Annex I countries. The Third Assessment Report suggests that there may be adverse impacts of response measures on developing countries, and further modeling work is needed to determine, with less uncertainty, the magnitude of the impact of response measures and to assess the impacts of response measures on individual countries. To this end, a specific chapter in the fourth assessment report of the IPCC must be dedicated to modeling the impacts of response measures on developing countries
- 2. Furthermore, in modeling and assessing the effects of policies, such factors as market approaches (taxes, subsidies, cap-and-trade), regulations and research and development need to be included in simulation. The international research community needs to address the major constraints for assessing the above factors, i.e.:
  - a. The incomplete data on specific policy information and a lack of methods to parameterize them properly.
  - b. The interactions between multiple policies either within or across countries which are not fully understood.
  - c. The inadequate assessment of technology development, and
  - d. The testing of models against current observations.
- 3. The international research community needs to address conceptual modeling challenges in order to determine the impact of response measures. It is necessary to address the following issues:
  - a. How to compare current economic conditions with those of an idealized world in which no measures are undertaken?
  - b. How can we overcome the normative analyses of response measures and the implications of policies not yet implemented for developed countries?
  - c. What are the needed approaches to further improve existing models with regards to types of policy covered, the gases modeled and how to model trade policies and their effects, among others?
- 4. Address the inability to fully disaggregate the impacts of a suite of climate change measures and mechanisms given the intricate linkages between national and international economies, the complexities among sectors and the transdisciplinary nature of such impacts. On the other hand, existing models may serve as a useful basis for future work in meeting the analytical needs of developing countries.

- 5. The greatest benefit of economic modeling is that it provides a structured framework for organizing data and ideas, but there is substantial uncertainty associated with the results of such modeling exercises as a result of data gaps, model structure inadequacies and the incomplete analytical framework for evaluating the impacts of response measures. What is needed for such models to have reliable values of the absolute quantitative outcomes of models and have significance of individual quantitative calculations?
- 6. The international research community needs to address difficulties associated with the use of such models, relating to availability of comprehensive data sets, the validity of assumptions and the compatibility and applicability of these assumptions to the modeling exercise, verification, quantifying the economic impacts associated with the different policies and policy instruments (fiscal, monetary, regulatory) and separating climate policy consequences from consequences of other policies (energy, environment, social). Approaches to modeling should focus on the impact of individual policies but should also address packages of policies. At the moment, most approaches focus on a portfolio of policies covering all sectors.
- 7. The international research community needs to continue and promote research on improving model quality by building upon the work already compiled by the IPCC in the Third Assessment Report. The IPCC should increase the participation of developing country experts in the preparation of future IPCC assessments on modeling activities.

#### 3) Executive Board of the CDM

There should be a recommendation by the COP to the executive board while developing methodologies and project reviews to address ways and means to support developing countries in their efforts to minimize the negative impacts of response measures.

#### PAPER NO. 4: UNITED STATES OF AMERICA

Submission of the United States
Progress in the Implementation of Decision 5/CP.7 on
Article 4, paragraphs 8 and 9, of the UN Framework Convention on Climate Change,
Pursuant to FCCC/SBI/2002/17

#### April 2003

We believe that with the ongoing cooperative efforts of Parties from all regions, there has been considerable progress in implementing Article 4 paragraphs 8 and 9 of the Convention in the manner outlined in Decision 5/CP.7. In our view, efforts to carry out 4.8 and 4.9 should continue in accordance with the country-driven approach that the Parties decided on in 5/CP.7 and in accordance with the Delhi Ministerial Declaration on Climate Change and Sustainable Development.

A number of multilateral and bilateral mechanisms are proving to be effective in transferring advanced environmentally friendly technologies to developing countries and providing countries with the means and know-how to adapt to potential adverse effects of climate change. We believe, however, that the private sector will continue to be the primary engine for the transfer of technologies that promote climate and sustainable development objectives. If climate and sustainable development objectives are to be met, incentives that promote the transfer of technologies compatible with each country's objectives will be crucial. Multilateral and bilateral means will also play a role, but private sector transfers are essential.

There remain some work areas outlined in 5/CP.7 where more research and data is needed, including on incentives for the private sector. It remains to be seen whether these areas would be most effectively addressed primarily through national planning and national action. The United States supports ongoing efforts, through multilateral and bilateral programs, to assist countries in their efforts in identifying vulnerabilities and developing effective planning strategies.

#### **National Approaches**

As affirmed in the Delhi Declaration, policies and measures related to climate change should be appropriate for the specific conditions of each country and should be integrated with national development programs. The Declaration indicates that national sustainable development strategies should integrate more fully climate change objectives in key areas such as water, energy, health, agriculture and biodiversity, and build on the outcomes of the WSSD. As the United States, along with many others countries, noted in the WSSD, sustainable development must be grounded in effective domestic policies and robust civil institutions. The same principle applies in the context of many activities relating to Decision 5/CP.7, especially given that many activities to implement this decision will be undertaken in the context of broader development strategies at the national and local levels.

Decision 5/CP.7 affirms the importance of a country-driven approach, and insists that action related to adaptation follow an assessment and evaluation process so as to prevent maladaptation and to help ensure real and sustained benefits. We continue to believe in the importance of this approach, and welcome the successful efforts of a number of developing countries, with the bilateral or multilateral support of developed country Parties or the support of the Global Environment Facility (GEF), to include in their national communications information on specific needs and concerns arising from the potential adverse effects of climate change.

#### **Multilateral Efforts**

The GEF remains an important part of efforts to implement 4.8 and 4.9. At COP-8, the Parties determined that the GEF has effectively performed its role as an operating entity of the financial

mechanism of the Convention. The United States joined other Parties in welcoming the successful and substantial third replenishment of the Global Environment Facility, which is producing the largest-ever collective contribution to the GEF Trust Fund. In 2002, the United States pledged \$500 million to the GEF (the most of any country, and a 16 percent increase over the our contribution in the previous replenishment) as part of the \$2.2 billion international replenishment agreement.

GEF Trust Funds are increasingly available for developing countries in accordance with COP guidance and decisions, including 5/CP.7. As indicated by the GEF Climate Change Program Study, the GEF climate change project portfolio addresses both technology transfer and capacity building. Almost all GEF projects in the area of climate change provide for transfer of technologies. Projects generally aim to increase diffusion and adoption, and to promote domestic manufacturing, of environmentally friendly technologies. Results to date indicate that most projects have enhanced country capacity.

As noted in the 2002 GEF report to COP-8, GEF activities related to adaptation include support under the climate change focal areas, support under other focal areas, and support through the development of a GEF Adaptation Strategy. As of August 2002, 132 countries had received financial support and technical guidance to assist in the preparation of national communications. A significant amount of funds were used to conduct vulnerability and adaptation assessments using guidelines of the Intergovernmental Panel on Climate Change. The GEF has financed regional enabling activity projects for adaptation. GEF funding has also been provided funding for a number of Stage II adaptation activities based on the agreed full cost principle.

The United States and other countries have supported a focus on adaptation and vulnerability in other multilateral organizations, in part in response to decisions in Marrakech and Delhi. These include actions within the United Nations Environment Programme, which referenced the Delhi Declaration in reaffirming the important role it plays within the U.N. system in advancing adaptation activities, as well as the United Nations Development Programme, which is undertaking a number of activities relating to Decision 5/CP.7 in the context of country-driven development priorities. Other international organizations, such as the World Meteorological Organization and the Food and Agriculture Organization, are also continuing to pursue activities to promote effective planning for responses to potential impacts of climate change.

Of relevance to efforts to implement 5/CP7 is the Johannesburg Plan of Implementation call for broad cooperative efforts to improve access to reliable and affordable energy services for sustainable development. WSSD representatives stressed the importance of promoting clean energy, while declining to endorse arbitrary targets.

#### **Bilateral Cooperation and United States Initiatives**

United States Government climate change projects support core U.S. development assistance priorities and the essential elements needed to achieve sustainable development. These priorities include supporting economic growth and social development that protects the resources of the host country; supporting the design and implementation of policy and institutional frameworks for sustainable development; and strengthening in-country institutions that involve and empower citizenry.

The United States is undertaking many research, planning and other activities that will reduce vulnerability and enhance adaptability to potential impacts of climate change. These activities include:

- Research to reduce and/or treat malaria, a climate-sensitive disease.
- Research to increase agricultural productivity in adverse climatic and soil conditions (*e.g.*, low soil moisture and acidic soils). which would not only help reduce hunger and malnourishment in the short term but also in the long term, especially if such conditions may become more prevalent

under conditions of climate change. Moreover, increased agricultural productivity helps reduce conversion of natural habitat to agricultural uses, thereby reducing pressures on biodiversity.

- Research to increase forest productivity would, similarly, reduce pressures on biodiversity.
- Development of plans, systems and infrastructure to help reduce loss of life and property to extreme weather events.

Some of these activities are explicitly targeted toward assisting developing countries (e.g., the malaria-related work), while others (e.g., work related to agricultural and forest productivity, and climatic extremes) are transferable to developing countries scientists and institutions. Accordingly, such activities will not only help us, but also the developing world, address many of their current urgent public health and environmental issues that, moreover, might be exacerbated by potential impacts of climate change. No less important, these adaptation activities will provide benefits in the short term (by solving today's urgent problems) while also helping future adaptation to climate change impacts.

Assisting countries that are vulnerable to the potential adverse effects of climate change is a priority for the United States. The U.S. Government has provided extensive financial and technical support to such countries for many years, primarily through a number of programs designed to address food security and sustainable agricultural production, biodiversity conservation, disaster preparedness and relief, water resources management, and climate research and weather prediction programs.

The United States Agency for International Development (USAID) supports various activities to reduce vulnerability to climate change impacts through coastal zone management, disaster preparedness, agriculture and food security, and protection of biodiversity and natural resources. For example, the Coastal Resources Management Program (CRMP) works in Indonesia, Tanzania, and Mexico to promote integrated coastal management. It includes such activities as development of watershed management plans; protection of marine areas; conservation of critical coastal habitats to protect from storm surge, sea-level rise and erosion; and development of best practices for coastal planning.

USAID also supports the Famine Early Warning System Network (FEWS NET) in more than 15 countries in Africa to assess short to long-term vulnerability to food insecurity. It integrates environmental information from satellites with agricultural and socioeconomic information from field representatives. The program conducts vulnerability assessments, contingency and response planning, and other activities aimed at strengthening the capacities of host country food security networks. Network members include host country and regional organizations that work on food security, response planning, environmental monitoring, and other relevant areas.

In addition, USAID has worked in the Rio Lempa watershed shared by El Salvador, Honduras, and Guatemala to increase the information base for disaster preparedness and response. Its support for the development of a Geographic Information System (GIS), installation of a network of automatic river gauges, weather stations, satellite dish and forecast center, in partnership with such agencies as the United States Geological Survey (USGS), the National Oceanic and Atmospheric Administration (NOAA), and the Regional Committee for Hydrologic Resources (CRRH), has enhanced the capacity of Central Americans to analyze and transmit data on climate and hydrologic conditions. including the capability to analyze watershed information in real time, which allows the forecast center to model current river flow, manage reservoir levels, and serve as an early warning tool for both floods and droughts.

#### Areas for Additional Research and Data

As the United States noted in its submission on the Third Assessment Report agenda item, we consider that adaptation and vulnerability, as an analytical matter, are inseparable, and that future SBSTA work on adaptation will need to take into account vulnerability as part of its consideration.

We believe that the SBSTA can do more to promote cooperation among the Parties to better prepare for adaptation to the impacts of climate change. We also believe it would be appropriate to initiate a standing agenda item to help promote and facilitate the exchange of information toward effective planning and response measures.

Countries and regions will differ substantially with respect to national circumstances, and the work of the SBSTA will need to reflect this fact. All countries are likely to engage in a process of consideration of adaptation, and we would consider the experiences gained by different countries to be of relevance to all Parties to the Convention. The United States believes a focus on national and sub-national planning processes in key issue-areas would be a useful way to initiate consideration of this set of issues. We also believe the SBSTA could exchange information for several issue-areas, covering, inter alia, the following types of questions:

- What are experiences and conditions in different countries with development planning at the national and sub-national levels?
- How is planning for climate change similar or distinct from planning for other considerations (*e.g.*, demographics, economic development patterns)?
- What experiences do countries have in incorporating climate impacts into adaptation strategies?
- What techniques and technologies are most useful?
- Do experiences with planning for other forms of social and environmental change suggest appropriate approaches/good practice/priorities?
- What are the strengths and weaknesses of existing adaptation-relevant data and their utility in national planning?
- What conditions stimulate or constrain adaptation and what is the role of non-climatic factors in adaptation choices/decision-making?
- What is the process of adaptation decision-making at various decision-making levels in countries?

Representatives of the United States are looking forward to participating in the May UNFCCC workshop on insurance and risk assessment in the context of climate change and extreme weather events, and the workshop on insurance-related actions to address the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and from the impact of the implementation of response measures.

There has been considerable progress in the development of models on the potential impacts of climate change and of mitigation measures. Nevertheless, substantial uncertainty remains, as was indicated at the 2002 Workshop on the Status of Modeling Activities to Assess the Adverse Effects of Climate Change and Impacts of Response Measures.

As was noted in the United States 2002 submission on the terms of reference for workshops on insurance and risk assessment in the context of climate change and extreme weather events, risk assessment depends in significant part on knowledge of the potential regional impacts of climate change, as well as the socio-economic factors that are largely accountable for increases in worldwide losses related to catastrophic weather events. We believe that addressing risks must also be viewed in a similarly broad context, since national policies and actions related to coastal development, agricultural and forestry policies, and other public policies profoundly affect vulnerability to disasters.

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