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Folder Title:
UN Framework Convention on Climate Change: 4th Conference of the Parties: Buenos Aires, Argentina, November 2-13, 1998 [binder] [2]

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Divider Title: **A**

Full Text of the Convention

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The Parties to this Convention,

Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind,

Concerned that human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in an additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and humankind,

Noting that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs,

Aware of the role and importance in terrestrial and marine ecosystems of sinks and reservoirs of greenhouse gases,

Noting that there are many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof,

Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions,

Recalling the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972,

Recalling also that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction,

Reaffirming the principle of sovereignty of States in international cooperation to address climate change,

Recognizing that States should enact effective environmental legislation, that environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply, and that standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries,

Recalling the provisions of General Assembly resolution 44/228 of 22 December 1989 on the United Nations Conference on Environment and Development, and resolutions 43/53 of 6 December 1988, 44/207 of 22 December 1989, 45/212 of 21 December 1990 and 46/169 of 19 December 1991 on protection of global climate for present and future generations of mankind,

Recalling also the provisions of General Assembly resolution 44/206 of 22 December 1989 on the possible adverse effects of sea-level rise on islands and coastal areas, particularly low-lying coastal areas and the pertinent provisions of General Assembly resolution 44/172 of 19 December 1989 on the implementation of the Plan of Action to Combat Desertification,

Recalling further the Vienna Convention for the Protection of the Ozone Layer, 1985, and the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987, as adjusted and amended on 29 June 1990,

Noting the Ministerial Declaration of the Second World Climate Conference adopted on 7 November 1990,

Conscious of the valuable analytical work being conducted by many States on climate change and of the important contributions of the World Meteorological Organization, the United Nations Environment Programme and other organs, organizations and bodies of the United Nations system, as well as other international and intergovernmental bodies, to the exchange of results of scientific research and the coordination of research,

Recognizing that steps required to understand and address climate change will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings in these areas,

Recognizing that various actions to address climate change can be justified economically in their own right and can also help in solving other environmental problems,

Recognizing also the need for developed countries to take immediate action in a flexible manner on the basis of clear priorities, as a first step towards comprehensive response strategies at the global, national and, where agreed, regional levels that take into account all greenhouse gases, with due consideration of their relative contributions to the enhancement of the greenhouse effect,

Recognizing further that low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change,

Recognizing the special difficulties of those countries, especially developing countries, whose economies are particularly dependent on fossil fuel production, use and exportation, as a consequence of action taken on limiting greenhouse gas emissions,

Affirming that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter, taking into full account the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty,

Recognizing that all countries, especially developing countries, need access to resources required to achieve sustainable social and economic development and that, in order for developing countries to progress towards that goal, their energy consumption will need to grow taking into account the possibilities for achieving greater energy efficiency and for controlling greenhouse gas emissions in general, including through the application of new technologies on terms which make such an application economically and socially beneficial,

Determined to protect the climate system for present and future generations,

Have agreed as follows:

ARTICLE 1
DEFINITIONS*

For the purposes of this Convention:

1...."Adverse effects of climate change" means changes in the physical environment or biota resulting from climate change which have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems or on the operation of socio-economic systems or on human health and welfare.

2...."Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

3...."Climate system" means the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions.

4...."Emissions" means the release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time.

5...."Greenhouse gases" means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation.

6...."Regional economic integration organization" means an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.

7...."Reservoir" means a component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored.

8...."Sink" means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere.

9...."Source" means any process or activity which releases a greenhouse gas, an aerosol or a precursor of a greenhouse gas into the atmosphere.

* Titles of articles are included solely to assist the reader.

ARTICLE 2
OBJECTIVE

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

ARTICLE 3
PRINCIPLES

In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, INTER ALIA, by the following:

1....The Parties should protect the climate system for the benefit of present and future generations of humankind, 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.

2....The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.

3....The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties.

4....The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change.

5....The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

ARTICLE 4
COMMITMENTS

1....All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, shall:

(a)....Develop, periodically update, publish and make available to the Conference of the Parties, in accordance with Article 12, national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties;

(b)....Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change;

(c)....Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors;

(d)....Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems;

(e)....Cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods;

(f)....Take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions, and employ appropriate methods, for example impact assessments, formulated and determined nationally, with a view to minimizing adverse effects on the economy, on public health and on the quality of the environment, of projects or measures undertaken by them to mitigate or adapt to climate change;

(g)....Promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies;

(h)....Promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies;

(i)....Promote and cooperate in education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations; and

(j)....Communicate to the Conference of the Parties information related to implementation, in accordance with Article 12.

2....The developed country Parties and other Parties included in Annex I commit themselves specifically as provided for in the following:

(a)....Each of these Parties shall adopt national1 policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification, and taking into account the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances, as well as the need for equitable and appropriate contributions by each of these Parties to the global effort regarding that objective. These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention and, in particular, that of this subparagraph;

(b)....In order to promote progress to this end, each of these Parties shall communicate, within six months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Article 12, detailed information on its policies and measures referred to in subparagraph (a) above, as well as on its resulting projected anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol for the period referred to in subparagraph (a), with the aim of returning individually or jointly to their 1990 levels these anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol. This information will be reviewed by the Conference of the Parties, at its first session and periodically thereafter, in accordance with Article 7;

(c)....Calculations of emissions by sources and removals by sinks of greenhouse gases for the purposes of subparagraph (b) above should take into account the best available scientific knowledge, including of the effective capacity of sinks and the respective contributions of such gases to climate change. The Conference of the Parties shall consider and agree on methodologies for these calculations at its first session and review them regularly thereafter;

(d)....The Conference of the Parties shall, at its first session, review the adequacy of subparagraphs (a) and (b) above. Such review shall be carried out in the light of the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information. Based on this review, the Conference of the Parties shall take appropriate action, which may include the adoption of amendments to the commitments in subparagraphs (a) and (b) above. The Conference of the Parties, at its first session, shall also take decisions regarding criteria for joint implementation as indicated in subparagraph (a) above. A second review of subparagraphs (a) and (b) shall take place not later than 31 December 1998, and thereafter at regular intervals determined by the Conference of the Parties, until the objective of the Convention is met;

(e)....Each of these Parties shall :

i)....Coordinate as appropriate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention; and

(ii)....Identify and periodically review its own policies and practices which encourage activities that lead to greater levels of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol than would otherwise occur;

(f)....The Conference of the Parties shall review, not later than 31 December 1998, available information with a view to taking decisions regarding such amendments to the lists in Annexes I and II as may be appropriate, with the approval of the Party concerned;

(g)....Any Party not included in Annex I may, in its instrument of ratification, acceptance, approval or accession, or at any time thereafter, notify the Depositary that it intends to be bound by subparagraphs (a) and (b) above. The Depositary shall inform the other signatories and Parties of any such notification.

3....The developed country Parties and other developed Parties included in Annex II shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1. They shall also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by paragraph 1 of this Article and that are agreed between a developing country Party and the international entity or entities referred to in Article 11, in accordance with that Article. The implementation of these commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among the developed country Parties.

4....The developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.

5....The developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.

6....In the implementation of their commitments under paragraph 2 above, a certain degree of flexibility shall be allowed by the Conference of the Parties to the Parties included in Annex I undergoing the process of transition to a market economy, in order to enhance the ability of these Parties to address climate change, including with regard to the historical level of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol chosen as a reference.

7....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 that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

8....In the implementation of the commitments in this Article, the Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on:

(a)....Small island countries;

(b)....Countries with low-lying coastal areas;

(c)....Countries with arid and semi-arid areas, forested areas and areas liable to forest decay;

(d)....Countries with areas prone to natural disasters;

(e)....Countries with areas liable to drought and desertification;

(f)....Countries with areas of high urban atmospheric pollution;

(g)....Countries with areas with fragile ecosystems, including mountainous ecosystems;

(h)....Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and (i)....Land-locked and transit countries.

Further, the Conference of the Parties may take actions, as appropriate, with respect to this paragraph.

9.....The Parties shall take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology.

10....The Parties shall, in accordance with Article 10, take into consideration in the implementation of the commitments of the Convention the situation of Parties, particularly developing country Parties, with economies that are vulnerable to the adverse effects of the implementation of measures to respond to climate change. This applies notably to Parties with economies that are highly dependent on income generated from the production, processing and export, and/or consumption of fossil fuels and associated energy-intensive products and/or the use of fossil fuels for which such Parties have serious difficulties in switching to alternatives.

ARTICLE 5
RESEARCH AND SYSTEMATIC OBSERVATION

In carrying out their commitments under Article 4, paragraph 1(g), the Parties shall:

(a)....Support and further develop, as appropriate, international and intergovernmental programmes and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimize duplication of effort;

(b)....Support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries, and to promote access to, and the exchange of, data and analyses thereof obtained from areas beyond national jurisdiction; and

(c)....Take into account the particular concerns and needs of developing countries and cooperate in improving their endogenous capacities and capabilities to participate in the efforts referred to in subparagraphs (a) and (b) above.

ARTICLE 6
EDUCATION, TRAINING AND PUBLIC AWARENESS

In carrying out their commitments under Article 4, paragraph 1(i), the Parties shall:

(a)....Promote and facilitate at the national and, as appropriate, subregional and regional levels, and in accordance with national laws and regulations, and within their respective capacities:

(i)....The development and implementation of educational and public awareness programmes on climate change and its effects;

(ii)....Public access to information on climate change and its effects;

(iii)....Public participation in addressing climate change and its effects and developing adequate responses; and

(iv)....Training of scientific, technical and managerial personnel.

(b)....Cooperate in and promote, at the international level, and, where appropriate, using existing bodies:

(i)....The development and exchange of educational and public awareness material on climate change and its effects; and

(ii)....The development and implementation of education and training programmes, including the strengthening of national institutions and the exchange or secondment of personnel to train experts in this field, in particular for developing countries.

ARTICLE 7
CONFERENCE OF THE PARTIES

1....A Conference of the Parties is hereby established.

2....The Conference of the Parties, as the supreme body of this Convention, shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention. To this end, it shall:

(a)....Periodically examine the obligations of the Parties and the institutional arrangements under the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge;

(b)....Promote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention;

(c)....Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under the Convention;

(d)....Promote and guide, in accordance with the objective and provisions of the Convention, the development and periodic refinement of comparable methodologies, to be agreed on by the Conference of the Parties, inter alia, for preparing inventories of greenhouse gas emissions by sources and removals by sinks, and for evaluating the effectiveness of measures to limit the emissions and enhance the removals of these gases;

(e)....Assess, on the basis of all information made available to it in accordance with the provisions of the Convention, the implementation of the Convention by the Parties, the overall effects of the measures taken pursuant to the Convention, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved;

(f)....Consider and adopt regular reports on the implementation of the Convention and ensure their publication;

(g)....Make recommendations on any matters necessary for the implementation of the Convention;

(h)....Seek to mobilize financial resources in accordance with Article 4, paragraphs 3, 4 and 5, and Article 11;

(i)....Establish such subsidiary bodies as are deemed necessary for the implementation of the Convention;

(j)....Review reports submitted by its subsidiary bodies and provide guidance to them;

(k)....Agree upon and adopt, by consensus, rules of procedure and financial rules for itself and for any subsidiary bodies;

(l)....Seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies; and

(m)....Exercise such other functions as are required for the achievement of the objective of the Convention as well as all other functions assigned to it under the Convention.

3....The Conference of the Parties shall, at its first session, adopt its own rules of procedure as well as those of the subsidiary bodies established by the Convention, which shall include decision-making procedures for matters not already covered by decision- making procedures stipulated in the Convention. Such procedures may include specified majorities required for the adoption of particular decisions.

4....The first session of the Conference of the Parties shall be convened by the interim secretariat referred to in Article 21 and shall take place not later than one year after the date of entry into force of the Convention. Thereafter, ordinary sessions of the Conference of the Parties shall be held every year unless otherwise decided by the Conference of the Parties.

5....Extraordinary sessions of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one third of the Parties.

6....The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State member thereof or observers thereto not Party to the Convention, may be represented at sessions of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non- governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 8
SECRETARIAT

1....A secretariat is hereby established.

2....The functions of the secretariat shall be:

(a)....To make arrangements for sessions of the Conference of the Parties and its subsidiary bodies established under the Convention and to provide them with services as required;

(b)....To compile and transmit reports submitted to it;

(c)....To facilitate assistance to the Parties, particularly developing country Parties, on request, in the compilation and communication of information required in accordance with the provisions of the Convention;

(d)....To prepare reports on its activities and present them to the Conference of the Parties;

(e)....To ensure the necessary coordination with the secretariats of other relevant international bodies;

(f)....To enter, under the overall guidance of the Conference of the Parties, into such administrative and contractual arrangements as may be required for the effective discharge of its functions; and

(g)....To perform the other secretariat functions specified in the Convention and in any of its protocols and such other functions as may be determined by the Conference of the Parties.

3....The Conference of the Parties, at its first session, shall designate a permanent secretariat and make arrangements for its functioning.

ARTICLE 9
SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

1....A subsidiary body for scientific and technological advice is hereby established to provide the Conference of the Parties and, as appropriate, its other subsidiary bodies with timely information and advice on scientific and technological matters relating to the Convention. This body shall be open to participation by all Parties and shall be multidisciplinary. It shall comprise government representatives competent in the relevant field of expertise. It shall report regularly to the Conference of the Parties on all aspects of its work.

2.....Under the guidance of the Conference of the Parties, and drawing upon existing competent international bodies, this body shall:

(a)....Provide assessments of the state of scientific knowledge relating to climate change and its effects;

(b)....Prepare scientific assessments on the effects of measures taken in the implementation of the Convention;

(c)....Identify innovative, efficient and state-of-the-art technologies and know-how and advise on the ways and means of promoting development and/or transferring such technologies;

(d)....Provide advice on scientific programmes, international cooperation in research and development related to climate change, as well as on ways and means of supporting endogenous capacity-building in developing countries; and

(e)....Respond to scientific, technological and methodological questions that the Conference of the Parties and its subsidiary bodies may put to the body.

3....The functions and terms of reference of this body may be further elaborated by the Conference of the Parties.

ARTICLE 10 SUBSIDIARY BODY FOR IMPLEMENTATION

1....A subsidiary body for implementation is hereby established to assist the Conference of the Parties in the assessment and review of the effective implementation of the Convention. This body shall be open to participation by all Parties and comprise government representatives who are experts on matters related to climate change. It shall report regularly to the Conference of the Parties on all aspects of its work.

2....Under the guidance of the Conference of the Parties, this body shall:

(a)....Consider the information communicated in accordance with Article 12, paragraph 1, to assess the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change;

(b)....Consider the information communicated in accordance with Article 12, paragraph 2, in order to assist the Conference of the Parties in carrying out the reviews required by Article 4, paragraph 2(d); and (c)....Assist the Conference of the Parties, as appropriate, in the preparation and implementation of its decisions.

ARTICLE 11
FINANCIAL MECHANISM

1....A mechanism for the provision of financial resources on a grant or concessional basis, including for the transfer of technology, is hereby defined. It shall function under the guidance of and be accountable to the Conference of the Parties, which shall decide on its policies, programme priorities and eligibility criteria related to this Convention. Its operation shall be entrusted to one or more existing international entities.

2....The financial mechanism shall have an equitable and balanced representation of all Parties within a transparent system of governance.

3....The Conference of the Parties and the entity or entities entrusted with the operation of the financial mechanism shall agree upon arrangements to give effect to the above paragraphs, which shall include the following:

(a)....Modalities to ensure that the funded projects to address climate change are in conformity with the policies, programme priorities and eligibility criteria established by the Conference of the Parties;

(b)....Modalities by which a particular funding decision may be reconsidered in light of these policies, programme priorities and eligibility criteria;

(c)....Provision by the entity or entities of regular reports to the Conference of the Parties on its funding operations, which is consistent with the requirement for accountability set out in paragraph 1 above; and

(d)....Determination in a predictable and identifiable manner of the amount of funding necessary and available for the implementation of this Convention and the conditions under which that amount shall be periodically reviewed.

4....The Conference of the Parties shall make arrangements to implement the above- mentioned provisions at its first session, reviewing and taking into account the interim arrangements referred to in Article 21, paragraph 3, and shall decide whether these interim arrangements shall be maintained. Within four years thereafter, the Conference of the Parties shall review the financial mechanism and take appropriate measures.

5....The developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels.

ARTICLE 12 COMMUNICATION OF INFORMATION RELATED TO IMPLEMENTATION

1....In accordance with Article 4, paragraph 1, each Party shall communicate to the Conference of the Parties, through the secretariat, the following elements of information:

(a)....A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties;

(b)....A general description of steps taken or envisaged by the Party to implement the Convention; and

(c)....Any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.

2....Each developed country Party and each other Party included in Annex I shall incorporate in its communication the following elements of information:

(a)....A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(a) and 2(b); and

(b)....A specific estimate of the effects that the policies and measures referred to in subparagraph (a) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(a).

3....In addition, each developed country Party and each other developed Party included in Annex II shall incorporate details of measures taken in accordance with Article 4, paragraphs 3, 4 and 5.

4....Developing country Parties may, on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits.

5....Each developed country Party and each other Party included in Annex I shall make its initial communication within six months of the entry into force of the Convention for that Party. Each Party not so listed shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3. Parties that are least developed countries may make their initial communication at their discretion. The frequency of subsequent communications by all Parties shall be determined by the Conference of the Parties, taking into account the differentiated timetable set by this paragraph.

6....Information communicated by Parties under this Article shall be transmitted by the secretariat as soon as possible to the Conference of the Parties and to any subsidiary bodies concerned. If necessary, the procedures for the communication of information may be further considered by the Conference of the Parties.

7....From its first session, the Conference of the Parties shall arrange for the provision to developing country Parties of technical and financial support, on request, in compiling and communicating information under this Article, as well as in identifying the technical and financial needs associated with proposed projects and response measures under Article 4. Such support may be provided by other Parties, by competent international organizations and by the secretariat, as appropriate.

8....Any group of Parties may, subject to guidelines adopted by the Conference of the Parties, and to prior notification to the Conference of the Parties, make a joint communication in fulfilment of their obligations under this Article, provided that such a communication includes information on the fulfilment by each of these Parties of its individual obligations under the Convention.

9....Information received by the secretariat that is designated by a Party as confidential, in accordance with criteria to be established by the Conference of the Parties, shall be aggregated by the secretariat to protect its confidentiality before being made available to any of the bodies involved in the communication and review of information.

10....Subject to paragraph 9 above, and without prejudice to the ability of any Party to make public its communication at any time, the secretariat shall make communications by Parties under this Article publicly available at the time they are submitted to the Conference of the Parties.

ARTICLE 13
RESOLUTION OF QUESTIONS REGARDING IMPLEMENTATION

The Conference of the Parties shall, at its first session, consider the establishment of a multilateral consultative process, available to Parties on their request, for the resolution of questions regarding the implementation of the Convention.

ARTICLE 14
SETTLEMENT OF DISPUTES

1....In the event of a dispute between any two or more Parties concerning the interpretation or application of the Convention, the Parties concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2....When ratifying, accepting, approving or acceding to the Convention, or at any time thereafter, a Party which is not a regional economic integration organization may declare in a written instrument submitted to the Depositary that, in respect of any dispute concerning the interpretation or application of the Convention, it recognizes as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:

(a)....Submission of the dispute to the International Court of Justice, and/or

(b)....Arbitration in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitration.

A Party which is a regional economic integration organization may make a declaration with like effect in relation to arbitration in accordance with the procedures referred to in subparagraph (b) above.

3....A declaration made under paragraph 2 above shall remain in force until it expires in accordance with its terms or until three months after written notice of its revocation has been deposited with the Depositary.

4....A new declaration, a notice of revocation or the expiry of a declaration shall not in any way affect proceedings pending before the International Court of Justice or the arbitral tribunal, unless the parties to the dispute otherwise agree.

5....Subject to the operation of paragraph 2 above, if after twelve months following notification by one Party to another that a dispute exists between them, the Parties concerned have not been able to settle their dispute through the means mentioned in paragraph 1 above, the dispute shall be submitted, at the request of any of the parties to the dispute, to conciliation.

6....A conciliation commission shall be created upon the request of one of the parties to the dispute. The commission shall be composed of an equal number of members appointed by each party concerned and a chairman chosen jointly by the members appointed by each party. The commission shall render a recommendatory award, which the parties shall consider in good faith.

7....Additional procedures relating to conciliation shall be adopted by the Conference of the Parties, as soon as practicable, in an annex on conciliation.

8....The provisions of this Article shall apply to any related legal instrument which the Conference of the Parties may adopt, unless the instrument provides otherwise.

ARTICLE 15 AMENDMENTS TO THE CONVENTION

1....Any Party may propose amendments to the Convention.

2....Amendments to the Convention shall be adopted at an ordinary session of the Conference of the Parties. The text of any proposed amendment to the Convention shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate proposed amendments to the signatories to the Convention and, for information, to the Depositary.

3....The Parties shall make every effort to reach agreement on any proposed amendment to the Convention by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted amendment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

4....Instruments of acceptance in respect of an amendment shall be deposited with the Depositary. An amendment adopted in accordance with paragraph 3 above shall enter into force for those Parties having accepted it on the ninetieth day after the date of receipt by the Depositary of an instrument of acceptance by at least three fourths of the Parties to the Convention.

5....The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits with the Depositary its instrument of acceptance of the said amendment.

6....For the purposes of this Article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

ARTICLE 16
ADOPTION AND AMENDMENT OF ANNEXES TO THE CONVENTION

1....Annexes to the Convention shall form an integral part thereof and, unless otherwise expressly provided, a reference to the Convention constitutes at the same time a reference to any annexes thereto. Without prejudice to the provisions of Article 14, paragraphs 2(b) and 7, such annexes shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

2....Annexes to the Convention shall be proposed and adopted in accordance with the procedure set forth in Article 15, paragraphs 2, 3 and 4.

3....An annex that has been adopted in accordance with paragraph 2 above shall enter into force for all Parties to the Convention six months after the date of the communication by the Depositary to such Parties of the adoption of the annex, except for those Parties that have notified the Depositary, in writing, within that period of their non-acceptance of the annex. The annex shall enter into force for Parties which withdraw their notification of non-acceptance on the ninetieth day after the date on which withdrawal of such notification has been received by the Depositary.

4....The proposal, adoption and entry into force of amendments to annexes to the Convention shall be subject to the same procedure as that for the proposal, adoption and entry into force of annexes to the Convention in accordance with paragraphs 2 and 3 above.

5....If the adoption of an annex or an amendment to an annex involves an amendment to the Convention, that annex or amendment to an annex shall not enter into force until such time as the amendment to the Convention enters into force.

ARTICLE 17
PROTOCOLS

1....The Conference of the Parties may, at any ordinary session, adopt protocols to the Convention.

2....The text of any proposed protocol shall be communicated to the Parties by the secretariat at least six months before such a session.

3....The requirements for the entry into force of any protocol shall be established by that instrument.

4....Only Parties to the Convention may be Parties to a protocol.

5....Decisions under any protocol shall be taken only by the Parties to the protocol concerned.

ARTICLE 18
RIGHT TO VOTE

1....Each Party to the Convention shall have one vote, except as provided for in paragraph 2 below.

2....Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to the Convention. Such an organization shall not exercise its right to vote if any of its member States exercises its right, and vice versa.

ARTICLE 19

DEPOSITARY

The Secretary-General of the United Nations shall be the Depositary of the Convention and of protocols adopted in accordance with Article 17.

ARTICLE 20 SIGNATURE

This Convention shall be open for signature by States Members of the United Nations or of any of its specialized agencies or that are Parties to the Statute of the International Court of Justice and by regional economic integration organizations at Rio de Janeiro, during the United Nations Conference on Environment and Development, and thereafter at United Nations Headquarters in New York from 20 June 1992 to 19 June 1993.

ARTICLE 21 INTERIM ARRANGEMENTS

1....The secretariat functions referred to in Article 8 will be carried out on an interim basis by the secretariat established by the General Assembly of the United Nations in its resolution 45/212 of 21 December 1990, until the completion of the first session of the Conference of the Parties.

2....The head of the interim secretariat referred to in paragraph 1 above will cooperate closely with the Intergovernmental Panel on Climate Change to ensure that the Panel can respond to the need for objective scientific and technical advice. Other relevant scientific bodies could also be consulted.

3....The Global Environment Facility of the United Nations Development Programme, the United Nations Environment Programme and the International Bank for Reconstruction and Development shall be the international entity entrusted with the operation of the financial mechanism referred to in Article 11 on an interim basis. In this connection, the Global Environment Facility should be appropriately restructured and its membership made universal to enable it to fulfil the requirements of Article 11.

ARTICLE 22
RATIFICATION, ACCEPTANCE, APPROVAL OR ACCESSION

1....The Convention shall be subject to ratification, acceptance, approval or accession by States and by regional economic integration organizations. It shall be open for accession from the day after the date on which the Convention is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2....Any regional economic integration organization which becomes a Party to the Convention without any of its member States being a Party shall be bound by all the obligations under the Convention. In the case of such organizations, one or more of whose member States is a Party to the Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under the Convention concurrently.

3....In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by the Convention. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

ARTICLE 23
ENTRY INTO FORCE

1....The Convention shall enter into force on the ninetieth day after the date of deposit of the fiftieth instrument of ratification, acceptance, approval or accession.

2....For each State or regional economic integration organization that ratifies, accepts or approves the Convention or accedes thereto after the deposit of the fiftieth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval or accession.

3....For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of the organization.

ARTICLE 24
RESERVATIONS

No reservations may be made to the Convention.

ARTICLE 25
WITHDRAWAL

1....At any time after three years from the date on which the Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2....Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

3....Any Party that withdraws from the Convention shall be considered as also having withdrawn from any protocol to which it is a Party.

ARTICLE 26
AUTHENTIC TEXTS

The original of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Convention.

DONE at New York this ninth day of May one thousand nine hundred and ninety- two.

ANNEX I AND ANNEX II COUNTRIES

Annex I

Annex I

Australia
Austria
Belarus a/
Belgium
Bulgaria a/
Canada
Czechoslovakia a/
Denmark
European Economic Community
Estonia a/
Finland
France
Germany
Greece
Hungary a/
Iceland
Ireland
Italy
Japan
Latvia a/
Lithuania a/
Luxembourg
Netherlands
New Zealand
Norway
Poland a/
Portugal
Romania a/
Russian Federation a/
Spain
Sweden
Switzerland
Turkey
Ukraine a/
United Kingdom of Great Britain and Northern Ireland
United States of America

a/ Countries that are undergoing the process of transition to a market economy.

Annex II

Australia
Austria
Belgium
Canada
Denmark
European Economic Community
Finland
France

Germany
Greece
Iceland
Ireland
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America

Clinton Presidential Records
Digital Records Marker

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This marker identifies the place of a tabbed divider. Given our digitization capabilities, we are sometimes unable to adequately scan such dividers. The title from the original document is indicated below.

Divider Title: **B**

Status of Ratification
in chronological order

The text of the Convention was adopted at the United nations Headquarters, New York on the 9 May 1992; it was open for signature at the Rio de Janeiro from 4 to 14 June 1992, and thereafter at the United Nations Headquarters, New York, from 20 June 1992 to 19 June 1993. By that date the Convention had received 166 signatures. The Convention entered into force on 21 March 1994. Those States that have not signed the Convention may accede to it at any time.

For those States that ratify, accept or approve the Convention or accede thereto after the date of entry into force, the Convention shall enter into force on the ninetieth day after the date of the deposit by such State of its instrument of ratification, acceptance, approval or accession.

These pages contains information concerning dates of signature and ratification received from the Secretary-General of the United nations, as at 29 May 1997. The dates in the column entitled "date of ratification" are those of the receipt of the instrument of ratification **(R)**, acceptance **(At)**, approval **(Ap)** or accession **(Ac)**.
(For an explanation of these legal terms, please follow this link

as at 7-October-98 the Convention received 176 instruments of ratification

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Second half, 1992

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Mauritius	10-Jun-92	04-Sep-92	R	21-Mar-94
Seychelles	10-Jun-92	22-Sep-92	R	21-Mar-94
Marshall Islands	12-Jun-92	08-Oct-92	R	21-Mar-94
United States of America	12-Jun-92	15-Oct-92	R	21-Mar-94
Zimbabwe	12-Jun-92	03-Nov-92	R	21-Mar-94
Maldives	12-Jun-92	09-Nov-92	R	21-Mar-94
Monaco	11-Jun-92	24-Nov-92	R	21-Mar-94
Canada	12-Jun-92	04-Dec-92	R	21-Mar-94
Australia	04-Jun-92	30-Dec-92	R	21-Mar-94

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Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
China	11-Jun-92	05-Jan-93	R	21-Mar-94
Saint Kitts and Nevis	12-Jun-92	07-Jan-93	R	21-Mar-94
Antigua and Barbuda	04-Jun-92	02-Feb-93	R	21-Mar-94
Ecuador	09-Jun-92	23-Feb-93	R	21-Mar-94
Fiji	09-Oct-92	25-Feb-93	R	21-Mar-94
Mexico	13-Jun-92	11-Mar-93	R	21-Mar-94
Papua New Guinea	13-Jun-92	16-Mar-93	R	21-Mar-94
Vanuatu	09-Jun-92	25-Mar-93	R	21-Mar-94
Cook Islands	12-Jun-92	20-Apr-93	R	21-Mar-94
Guinea	12-Jun-92	07-May-93	R	21-Mar-94
Armenia	13-Jun-92	14-May-93	R	21-Mar-94
Japan	13-Jun-92	28-May-93	Ap	21-Mar-94
Zambia	11-Jun-92	28-May-93	R	21-Mar-94
Peru	12-Jun-92	07-Jun-93	R	21-Mar-94
Algeria	13-Jun-92	09-Jun-93	R	21-Mar-94
Saint Lucia	14-Jun-93	14-Jun-93	R	21-Mar-94
Iceland	04-Jun-92	16-Jun-93	R	21-Mar-94
Uzbekistan		20-Jun-93	Ac	21-Mar-94
Dominica		21-Jun-93	Ac	21-Mar-94
Sweden	08-Jun-92	23-Jun-93	R	21-Mar-94

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Norway	04-Jun-92	09-Jul-93	R	21-Mar-94
Tunisia	13-Jun-92	15-Jul-93	R	21-Mar-94
Burkina Faso	12-Jun-92	02-Sep-93	R	21-Mar-94
Uganda	13-Jun-92	08-Sep-93	R	21-Mar-94
New Zealand	04-Jun-92	16-Sep-93	R	21-Mar-94
Mongolia	12-Jun-92	30-Sep-93	R	21-Mar-94
Czech Republic	18-Jun-93	07-Oct-93	Ap	21-Mar-94
Tuvalu	08-Jun-92	26-Oct-93	R	21-Mar-94
India	10-Jun-92	01-Nov-93	R	21-Mar-94
Nauru	08-Jun-92	11-Nov-93	R	21-Mar-94
Jordan	11-Jun-92	12-Nov-93	R	21-Mar-94
Micronesia (Federated States of)	12-Jun-92	18-Nov-93	R	21-Mar-94
Sudan	09-Jun-92	19-Nov-93	R	21-Mar-94
Sri Lanka	10-Jun-92	23-Nov-93	R	21-Mar-94
United Kingdom of Great Britain	12-Jun-92	08-Dec-93	R	21-Mar-94
Germany	12-Jun-92	09-Dec-93	R	21-Mar-94
Switzerland	12-Jun-92	10-Dec-93	R	21-Mar-94
Republic of Korea	13-Jun-92	14-Dec-93	R	21-Mar-94
Netherlands	04-Jun-92	20-Dec-93	At	21-Mar-94
European Community	13-Jun-92	21-Dec-93	Ap	21-Mar-94
Spain	13-Jun-92	21-Dec-93	R	21-Mar-94
Denmark	09-Jun-92	21-Dec-93	R	21-Mar-94
Portugal	13-Jun-92	21-Dec-93	R	21-Mar-94

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Cuba	13-Jun-92	05-Jan-94	R	05-Apr-94
Mauritania	12-Jun-92	20-Jan-94	R	20-Apr-94
Botswana	12-Jun-92	27-Jan-94	R	27-Apr-94
Hungary	13-Jun-92	24-Feb-94	R	25-May-94
Paraguay	12-Jun-92	24-Feb-94	R	25-May-94
Austria	08-Jun-92	28-Feb-94	R	29-May-94
Brazil	04-Jun-92	28-Feb-94	R	29-May-94
Argentina	12-Jun-92	11-Mar-94	R	09-Jun-94
Malta	12-Jun-92	17-Mar-94	R	15-Jun-94
Barbados	12-Jun-92	23-Mar-94	R	21-Jun-94
France	13-Jun-92	25-Mar-94	R	23-Jun-94
Bahamas	12-Jun-92	29-Mar-94	R	27-Jun-94
Ethiopia	10-Jun-92	05-Apr-94	R	04-Jul-94
Italy	05-Jun-92	15-Apr-94	R	14-Jul-94
Bangladesh	09-Jun-92	15-Apr-94	R	14-Jul-94
Ireland	13-Jun-92	20-Apr-94	R	19-Jul-94
Malawi	10-Jun-92	21-Apr-94	R	20-Jul-94
Nepal	12-Jun-92	02-May-94	R	31-Jul-94
Finland	04-Jun-92	03-May-94	R	01-Aug-94
Luxembourg	09-Jun-92	09-May-94	R	07-Aug-94
Pakistan	13-Jun-92	01-Jun-94	R	30-Aug-94
Chad	12-Jun-92	07-Jun-94	R	05-Sep-94
Romania	05-Jun-92	08-Jun-94	R	06-Sep-94
Gambia	12-Jun-92	10-Jun-94	R	08-Sep-94
Liechtenstein	04-Jun-92	22-Jun-94	R	20-Sep-94
Trinidad and Tobago	11-Jun-92	24-Jun-94	R	22-Sep-94
Benin	13-Jun-92	30-Jun-94	R	28-Sep-94

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Malaysia	09-Jun-93	13-Jul-94	R	11-Oct-94
Estonia	12-Jun-92	27-Jul-94	R	25-Oct-94
Poland	05-Jun-92	28-Jul-94	R	26-Oct-94
Georgia		29-Jul-94	Ac	27-Oct-94
Philippines	12-Jun-92	02-Aug-94	R	31-Oct-94
Greece	12-Jun-92	04-Aug-94	R	02-Nov-94
Grenada	03-Dec-92	11-Aug-94	R	09-Nov-94
Uruguay	04-Jun-92	18-Aug-94	R	16-Nov-94
Indonesia	05-Jun-92	23-Aug-94	R	21-Nov-94
Slovak Republic	19-May-93	25-Aug-94	Ap	23-Nov-94
Costa Rica	13-Jun-92	26-Aug-94	R	24-Nov-94
Nigeria	13-Jun-92	29-Aug-94	R	27-Nov-94
Guyana	13-Jun-92	29-Aug-94	R	27-Nov-94
Kenya	12-Jun-92	30-Aug-94	R	28-Nov-94
Albania		03-Oct-94	Ac	01-Jan-95
Bolivia	10-Jun-92	03-Oct-94	R	01-Jan-95
Senegal	13-Jun-92	17-Oct-94	R	15-Jan-95
Cameroon	14-Jun-92	19-Oct-94	R	17-Jan-95
San Marino	10-Jun-92	28-Oct-94	R	26-Jan-95
Comoros	11-Jun-92	31-Oct-94	R	29-Jan-95
Belize	13-Jun-92	31-Oct-94	R	29-Jan-95
Viet Nam	11-Jun-92	16-Nov-94	R	14-Feb-95
Myanmar	11-Jun-92	25-Nov-94	R	23-Feb-95
Cote d'Ivoire	10-Jun-92	29-Nov-94	R	27-Feb-95
Samoa	12-Jun-92	29-Nov-94	R	27-Feb-95

Democratic People's Republic of Korea	11-Jun-92	05-Dec-94	Ap	05-Mar-95
Egypt	09-Jun-92	05-Dec-94	R	05-Mar-95
Lebanon	12-Jun-92	15-Dec-94	R	15-Mar-95
Chile	13-Jun-92	22-Dec-94	R	22-Mar-95
Bahrain	08-Jun-92	28-Dec-94	R	28-Mar-95
Venezuela	12-Jun-92	28-Dec-94	R	28-Mar-95
Russian Federation	13-Jun-92	28-Dec-94	R	28-Mar-95
Saudi Arabia		28-Dec-94	Ac	28-Mar-95
Kuwait		28-Dec-94	Ac	28-Mar-95
Solomon Islands	13-Jun-92	28-Dec-94	R	28-Mar-95
Thailand	12-Jun-92	28-Dec-94	R	28-Mar-95
Mali	22-Sep-92	28-Dec-94	R	28-Mar-95

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Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
Lao People's Democratic Republic		04-Jan-95	Ac	04-Apr-95
Jamaica	12-Jun-92	06-Jan-95	R	06-Apr-95
Democratic Republic of the Congo	11-Jun-92	09-Jan-95	R	09-Apr-95
Lesotho	11-Jun-92	07-Feb-95	R	08-May-95
Kiribati	13-Jun-92	07-Feb-95	R	08-May-95
Oman	11-Jun-92	08-Feb-95	R	09-May-95
Togo	12-Jun-92	08-Mar-95	At	06-Jun-95
Central African Republic	13-Jun-92	10-Mar-95	R	08-Jun-95
Colombia	13-Jun-92	22-Mar-95	R	20-Jun-95
Latvia	11-Jun-92	23-Mar-95	R	21-Jun-95
Lithuania	11-Jun-92	24-Mar-95	R	22-Jun-95
Cape Verde	12-Jun-92	29-Mar-95	R	27-Jun-95
Eritrea		24-Apr-95	Ac	23-Jul-95
Bulgaria	05-Jun-92	12-May-95	R	10-Aug-95
Namibia	12-Jun-92	16-May-95	R	14-Aug-95
Azerbaijan	12-Jun-92	16-May-95	R	14-Aug-95
Kazakhstan	08-Jun-92	17-May-95	R	15-Aug-95
Panama	18-Mar-93	23-May-95	R	21-Aug-95
Turkmenistan		05-Jun-95	Ac	03-Sep-95
Republic of Moldova	12-Jun-92	09-Jun-95	R	07-Sep-95
Sierra Leone	11-Feb-93	22-Jun-95	R	20-Sep-95

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Niger	11-Jun-92	25-Jul-95	R	23-Oct-95
Bhutan	11-Jun-92	25-Aug-95	R	23-Nov-95
Mozambique	12-Jun-92	25-Aug-95	R	23-Nov-95
Djibouti	12-Jun-92	27-Aug-95	R	25-Nov-95
Ghana	12-Jun-92	06-Sep-95	R	05-Dec-95
Honduras	13-Jun-92	19-Oct-95	R	17-Jan-96
Guinea Bissau	12-Jun-92	27-Oct-95	R	25-Jan-96
Nicaragua	13-Jun-92	21-Oct-95	R	29-Jan-96
Slovenia	13-Jun-92	01-Dec-95	R	29-Feb-96
El Salvador	13-Jun-92	04-Dec-95	R	03-Mar-96
Guatemala	13-Jun-92	15-Dec-95	R	14-Mar-96
Cambodia		18-Dec-95	Ac	17-Mar-96
Morocco	13-Jun-92	28-Dec-95	R	27-Mar-96
United Arab Emirates		29-Dec-95	Ac	28-Mar-96

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Syrian Arab Republic		04-Jan-96	Ac	03-Apr-96
Belgium	04-Jun-92	16-Jan-96	R	15-Apr-96
Yemen	12-Jun-92	21-Feb-96	R	21-May-96
Niue		28-Feb-96	Ac	28-May-96
Croatia	11-Jun-92	08-Apr-96	R	07-Jul-96
United Republic of Tanzania	12-Jun-92	17-Apr-96	R	16-Jul-96
Qatar		18-Apr-96	Ac	17-Jul-96
Israel	04-Jun-92	04-Jun-96	R	02-Sep-96

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Second half, 1996

Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
Iran (Islamic Republic of)	14-Jun-92	18-July-96	R	16-Oct-96
Haiti	13-Jun-92	25-Sept-96	R	24-Dec-96
Swaziland	12-Jun-92	07-Oct-96	R	05-Jan-97
Congo	12-Jun-92	14-Oct-96	R	12-Jan-97
Saint Vincent and the Grenadines	---	02-Dec-96	Ac	02-Mar-97

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First half, 1997

Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
Burundi	11-Jun-92	06-Jan-97	R	07-Apr-97
Ukraine	11-Jun-92	13-May-97	R	11-Aug-97
Singapore	13-Jun-92	29-May-97	R	27-Aug-97

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Second half, 1997

Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
South Africa	15-Jun-92	29-Aug-97	R	27-Nov-97
Yugoslavia	8-Jun-92	3-Sep-97	R	2-Dec-97
Suriname	13-Jun-92	14-Oct-97	R	12-Jan-98
Cyprus	12-Jun-92	15-Oct-97	R	13-Jan-98

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Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
Tajikistan	---	07-Jan-98	Ac	07-Apr-98
Gabon	12-Jun-92	21-Jan-98	R	21-Apr-98
The Former Yogoslav Republic of Macedonia	---	28-Jan-98	Ac	28-Apr-98

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Country Name	Date of Signature	Date of Ratification	Type	Enter into Force
Tonga	---	20-July-98	Ac	18-Oct-98
Dominican Republic	16-June-92	07-Oct-98	R	05-Jan-99

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Divider Title: **C**

KYOTO PROTOCOL TO THE

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The Parties to this Protocol,

Being Parties to the United Nations Framework Convention on Climate Change, hereinafter referred to as "the Convention",

In pursuit of the ultimate objective of the Convention as stated in its Article 2,

Recalling the provisions of the Convention,

Being guided by Article 3 of the Convention,

Pursuant to the Berlin Mandate adopted by decision 1/CP.1 of the

Conference of the Parties to the Convention at its first session,

Have agreed as follows:

Article 1

For the purposes of this Protocol, the definitions contained in Article 1 of the Convention shall apply. In addition:

1. "Conference of the Parties" means the Conference of the Parties to the Convention.

2. "Convention" means the United Nations Framework Convention on Climate Change, adopted in New York on 9 May 1992.

3. "Intergovernmental Panel on Climate Change" means the Intergovernmental Panel on Climate Change established in 1988 jointly by the World Meteorological Organization and the United Nations Environment Programme.

4. "Montreal Protocol" means the Montreal Protocol on Substances that Deplete the Ozone Layer, adopted in Montreal on 16 September 1987 and as subsequently adjusted and amended.

5. "Parties present and voting" means Parties present and casting an affirmative or negative vote.

6. "Party" means, unless the context otherwise indicates, a Party to this Protocol.

7. "Party included in Annex I" means a Party included in Annex I to the Convention, as may be amended, or a Party which has made a notification under Article 4, paragraph 2(g), of the Convention.

Article 2

1. Each Party included in Annex I, in achieving its quantified emission limitation and reduction commitments under Article 3, in order to promote sustainable development, shall:

(a) Implement and/or further elaborate policies and measures in accordance with its national circumstances, such as:

(i) Enhancement of energy efficiency in relevant sectors of the national economy;

(ii) Protection and enhancement of sinks and reservoirs of greenhouse gases not controlled by the Montreal Protocol, taking into account its commitments under relevant international environmental agreements; promotion of sustainable forest management practices, afforestation and reforestation;

(iii) Promotion of sustainable forms of agriculture in light of climate change considerations;

(iv) Research on, and promotion, development and increased use of, new and renewable forms of energy, of carbon dioxide sequestration technologies and of advanced and innovative environmentally sound technologies;

(v) Progressive reduction or phasing out of market imperfections, fiscal incentives, tax and duty exemptions and subsidies in all greenhouse gas emitting sectors that run counter to the objective of the Convention and application of market instruments;

(vi) Encouragement of appropriate reforms in relevant sectors aimed at promoting policies and measures which limit or reduce emissions of greenhouse gases not controlled by the Montreal Protocol;

(vii) Measures to limit and/or reduce emissions of greenhouse gases not controlled by the Montreal Protocol in the transport sector;

(viii) Limitation and/or reduction of methane emissions through recovery and use in waste management, as well as in the production, transport and distribution of energy;

(b) Cooperate with other such Parties to enhance the individual and combined effectiveness of their policies and measures adopted under this Article, pursuant to Article 4, paragraph 2(e)(i), of the Convention. To this end, these Parties shall take steps to share their experience and exchange information on such policies and measures, including developing ways of improving their comparability, transparency and effectiveness. The Conference of the

Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, consider ways to facilitate such cooperation, taking into account all relevant information.

2. The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.

3. The Parties included in Annex I shall strive to implement policies and measures under this Article in such a way as to minimize adverse effects, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties and in particular those identified in Article 4, paragraphs 8 and 9, of the Convention, taking into account Article 3 of the Convention. The Conference of the Parties serving as the meeting of the Parties to this Protocol may take further action, as appropriate, to promote the implementation of the provisions of this paragraph.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol, if it decides that it would be beneficial to coordinate any of the policies and measures in

paragraph 1(a) above, taking into account different national circumstances and potential effects, shall consider ways and means to elaborate the coordination of such policies and measures.

Article 3

1. The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012.

2. Each Party included in Annex I shall, by 2005, have made demonstrable progress in achieving its commitments under this Protocol.

3. The net changes in greenhouse gas emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, measured as verifiable changes in carbon stocks in each commitment period, shall be used to meet the commitments under this Article of each Party included in Annex I. The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8.

4. Prior to the first session of the Conference of the Parties serving as the meeting of the Parties to this Protocol, each Party included in Annex I shall provide, for consideration by the Subsidiary Body for Scientific and Technological Advice, data to establish its level of carbon stocks in 1990 and to enable an estimate to be made of its changes in carbon stocks in subsequent years. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, decide upon modalities, rules and guidelines as to how, and which, additional human-induced activities related to changes in greenhouse gas emissions by sources and removals by sinks in the agricultural soils and the land-use change and forestry categories shall be added to, or subtracted from, the assigned amounts for Parties included in Annex I, taking into account uncertainties, transparency in reporting, verifiability, the methodological work of the Intergovernmental Panel on Climate Change, the advice provided by the Subsidiary Body for Scientific and Technological Advice in accordance with Article 5 and the decisions of the Conference of the Parties. Such a decision shall apply in the second and subsequent commitment periods. A Party may choose to apply such a decision on these additional human-induced activities for its first commitment period, provided that these activities have taken place since 1990.

5. The Parties included in Annex I undergoing the process of transition to a market economy whose base year or period was established pursuant to decision 9/CP.2 of the Conference of the Parties at its second session shall use that base year or period for the implementation of their commitments under this Article. Any other Party included in Annex I undergoing the process of transition to a market economy which has not yet submitted its first national communication under Article 12 of the Convention may also notify the Conference of the Parties serving as the meeting of the Parties to this Protocol that it intends to use an historical base year or period other than 1990 for the implementation of its commitments under this Article. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall decide on the acceptance of such notification.

6. Taking into account Article 4, paragraph 6, of the Convention, in the implementation of their commitments under this Protocol other than those under this Article, a certain degree of flexibility shall be allowed by the Conference of the Parties serving as the meeting of the Parties

to this Protocol to the Parties included in Annex I undergoing the process of transition to a market economy.

7. In the first quantified emission limitation and reduction commitment period, from

2008 to 2012, the assigned amount for each Party included in Annex I shall be equal to the percentage inscribed for it in Annex B of its aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A in 1990, or the base year or period determined in accordance with paragraph 5 above, multiplied by five. Those Parties included in Annex I for whom land-use change and forestry constituted a net source of greenhouse gas emissions in 1990 shall include in their 1990 emissions base year or period the aggregate anthropogenic carbon dioxide equivalent emissions by sources minus removals by sinks in 1990 from land-use change for the purposes of calculating their assigned amount.

8. Any Party included in Annex I may use 1995 as its base year for hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride, for the purposes of the calculation referred to in paragraph 7 above.

9. Commitments for subsequent periods for Parties included in Annex I shall be established in amendments to Annex B to this Protocol, which shall be adopted in accordance with the provisions of Article 21, paragraph 7. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall initiate the consideration of such commitments at least seven years before the end of the first commitment period referred to in paragraph 1 above.

10. Any emission reduction units, or any part of an assigned amount, which a Party acquires from another Party in accordance with the provisions of Article 6 or of Article 17 shall be added to the assigned amount for the acquiring Party.

11. Any emission reduction units, or any part of an assigned amount, which a Party transfers to another Party in accordance with the provisions of Article 6 or of Article 17 shall be subtracted from the assigned amount for the transferring Party.

12. Any certified emission reductions which a Party acquires from another Party in accordance with the provisions of Article 12 shall be added to the assigned amount for the acquiring Party.

13. If the emissions of a Party included in Annex I in a commitment period are less than its assigned amount under this Article, this difference shall, on request of that Party, be added to the assigned amount for that Party for subsequent commitment periods.

14. Each Party included in Annex I shall strive to implement the commitments mentioned in paragraph 1 above in such a way as to minimize adverse social, environmental and economic impacts on developing country Parties, particularly those identified in Article 4, paragraphs 8 and 9, of the Convention. In line with relevant decisions of the Conference of the Parties on the implementation of those paragraphs, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, consider what actions are necessary to minimize the adverse effects of climate change and/or the impacts of response measures on Parties referred to in those paragraphs. Among the issues to be considered shall be the establishment of funding, insurance and transfer of technology.

Article 4

1. Any Parties included in Annex I that have reached an agreement to fulfil their commitments under Article 3 jointly, shall be deemed to have met those commitments provided that their total combined aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases

listed in Annex A do not exceed their assigned amounts calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of Article 3. The respective emission level allocated to each of the Parties to the agreement shall be set out in that agreement.

2. The Parties to any such agreement shall notify the secretariat of the terms of the agreement on the date of deposit of their instruments of ratification, acceptance or approval of this Protocol, or accession thereto. The secretariat shall in turn inform the Parties and signatories to the Convention of the terms of the agreement.

3. Any such agreement shall remain in operation for the duration of the commitment period specified in Article 3, paragraph 7.

4. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization, any alteration in the composition of the organization after adoption of this Protocol shall not affect existing commitments under this Protocol. Any alteration in the composition of the organization shall only apply for the purposes of those commitments under Article 3 that are adopted subsequent to that alteration.

5. In the event of failure by the Parties to such an agreement to achieve their total combined level of emission reductions, each Party to that agreement shall be responsible for its own level of emissions set out in the agreement.

6. If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization which is itself a Party to this Protocol, each member State of that regional economic integration organization individually, and together with the regional economic integration organization acting in accordance with Article 24, shall, in the event of failure to achieve the total combined level of emission reductions, be responsible for its level of emissions as notified in accordance with this Article.

Article 5

1. Each Party included in Annex I shall have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol. Guidelines for such national systems, which shall incorporate the methodologies specified in paragraph 2 below, shall be decided upon by the Conference of the Parties serving as the meeting of the Parties to this Protocol at its first session.

2. Methodologies for estimating anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Where such methodologies are not used, appropriate adjustments shall be applied according to methodologies agreed upon by the Conference of the Parties serving as the meeting of the Parties to this Protocol at its first session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise such methodologies and adjustments, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to methodologies or adjustments shall be used only for the purposes of ascertaining compliance with commitments under Article 3 in respect of any commitment period adopted

subsequent to that revision.

3. The global warming potentials used to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex A shall be those accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties at its third session. Based on the work of, *inter alia*, the Intergovernmental Panel on Climate Change and advice provided by the Subsidiary Body for Scientific and Technological Advice, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall regularly review and, as appropriate, revise the global warming potential of each such greenhouse gas, taking fully into account any relevant decisions by the Conference of the Parties. Any revision to a global warming potential shall apply only to commitments under Article 3 in respect of any commitment period adopted subsequent to that revision.

Article 6

1. For the purpose of meeting its commitments under Article 3, any Party included in

Annex I may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, provided that:

(a) Any such project has the approval of the Parties involved;

(b) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur;

(c) It does not acquire any emission reduction units if it is not in compliance with its obligations under Articles 5 and 7; and

(d) The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments under Article 3.

2. The Conference of the Parties serving as the meeting of the Parties to this Protocol may, at its first session or as soon as practicable thereafter, further elaborate guidelines for the implementation of this Article, including for verification and reporting.

3. A Party included in Annex I may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition under this Article of emission reduction units.

4. If a question of implementation by a Party included in Annex I of the requirements referred to in this Article is identified in accordance with the relevant provisions of

Article 8, transfers and acquisitions of emission reduction units may continue to be made after the question has been identified, provided that any such units may not be used by a Party to meet its commitments under Article 3 until any issue of compliance is resolved.

Article 7

1. Each Party included in Annex I shall incorporate in its annual inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol, submitted in accordance with the relevant decisions of the Conference of the Parties, the necessary supplementary information for the purposes of ensuring compliance with Article 3,

to be determined in accordance with paragraph 4 below.

2. Each Party included in Annex I shall incorporate in its national communication, submitted under Article 12 of the Convention, the supplementary information necessary to demonstrate compliance with its commitments under this Protocol, to be determined in accordance with paragraph 4 below.

3. Each Party included in Annex I shall submit the information required under

paragraph 1 above annually, beginning with the first inventory due under the Convention for the first year of the commitment period after this Protocol has entered into force for that Party. Each such Party shall submit the information required under paragraph 2 above as part of the first national communication due under the Convention after this Protocol has entered into force for it and after the adoption of guidelines as provided for in paragraph 4 below. The frequency of subsequent submission of information required under this Article shall be determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol, taking into account any timetable for the submission of national communications decided upon by the Conference of the Parties.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall adopt at its first session, and review periodically thereafter, guidelines for the preparation of the information required under this Article, taking into account guidelines for the preparation of national communications by Parties included in Annex I adopted by the Conference of the Parties. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall also, prior to the first commitment period, decide upon modalities for the accounting of assigned amounts.

Article 8

1. The information submitted under Article 7 by each Party included in Annex I shall be reviewed by expert review teams pursuant to the relevant decisions of the Conference of the Parties and in accordance with guidelines adopted for this purpose by the Conference of the Parties serving as the meeting of the Parties to this Protocol under paragraph 4 below. The information submitted under Article 7, paragraph 1, by each Party included in Annex I shall be reviewed as part of the annual compilation and accounting of emissions inventories and assigned amounts. Additionally, the information submitted under Article 7, paragraph 2, by each Party included in Annex I shall be reviewed as part of the review of communications.

2. Expert review teams shall be coordinated by the secretariat and shall be composed of experts selected from those nominated by Parties to the Convention and, as appropriate, by intergovernmental organizations, in accordance with guidance provided for this purpose by the Conference of the Parties.

3. The review process shall provide a thorough and comprehensive technical assessment

of all aspects of the implementation by a Party of this Protocol. The expert review teams shall prepare a report to the Conference of the Parties serving as the meeting of the Parties to this Protocol, assessing the implementation of the commitments of the Party and identifying any potential problems in, and factors influencing, the fulfilment of commitments. Such reports shall be circulated by the secretariat to all Parties to the Convention. The secretariat shall list those questions of implementation indicated in such reports for further consideration by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall adopt at its first session, and review periodically thereafter, guidelines for the review of implementation

of this Protocol by expert review teams taking into account the relevant decisions of the Conference of the Parties.

5. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, with the assistance of the Subsidiary Body for Implementation and, as appropriate, the Subsidiary Body for Scientific and Technological Advice, consider:

(a) The information submitted by Parties under Article 7 and the reports of the expert reviews thereon conducted under this Article; and

(b) Those questions of implementation listed by the secretariat under

paragraph 3 above, as well as any questions raised by Parties.

6. Pursuant to its consideration of the information referred to in paragraph 5 above, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall take decisions on any matter required for the implementation of this Protocol.

Article 9

1. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall periodically review this Protocol in the light of the best available scientific information and assessments on climate change and its impacts, as well as relevant technical, social and economic information. Such reviews shall be coordinated with pertinent reviews under the Convention, in particular those required by Article 4, paragraph 2(d), and Article 7,

paragraph 2(a), of the Convention. Based on these reviews, the Conference of the Parties serving as the meeting of the Parties to this Protocol shall take appropriate action.

2. The first review shall take place at the second session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. Further reviews shall take place at regular intervals and in a timely manner.

Article 10

All Parties, taking into account their common but differentiated responsibilities and

their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention, shall:

(a) Formulate, where relevant and to the extent possible, cost-effective national

and, where appropriate, regional programmes to improve the quality of local emission factors, activity data and/or models which reflect the socio-economic conditions of each Party for the preparation and periodic updating of national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties, and consistent with the guidelines for the preparation of national communications adopted by the Conference of the Parties;

(b) Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change and measures to facilitate adequate adaptation to climate change:

(i) Such programmes would, *inter alia*, concern the energy, transport and industry sectors as well as agriculture, forestry and waste management. Furthermore, adaptation technologies and methods for improving spatial planning would improve adaptation to climate change; and

(ii) Parties included in Annex I shall submit information on action under this Protocol, including national programmes, in accordance with Article 7; and other Parties shall seek to include in their national communications, as appropriate, information on programmes which contain measures that the Party believes contribute to addressing climate change and its adverse impacts, including the abatement of increases in greenhouse gas emissions, and enhancement of and removals by sinks, capacity building and adaptation measures;

(c) Cooperate in the promotion of effective modalities for the development, application and diffusion of, and take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies, know-how, practices and processes pertinent to climate change, in particular to developing countries, including the formulation of policies and programmes for the effective transfer of

environmentally sound technologies that are publicly owned or in the public domain and the creation of an enabling environment for the private sector, to promote and enhance the transfer of, and access to, environmentally sound technologies;

(d) Cooperate in scientific and technical research and promote the maintenance and the development of systematic observation systems and development of data archives to reduce uncertainties related to the climate system, the adverse impacts of climate change and the economic and social consequences of various response strategies, and promote the development and strengthening of endogenous capacities and capabilities to participate in international and intergovernmental efforts, programmes and networks on research and systematic observation, taking into account Article 5 of the Convention;

(e) Cooperate in and promote at the international level, and, where appropriate,

using existing bodies, the development and implementation of education and training programmes, including the strengthening of national capacity building, in particular human and institutional capacities and the exchange or secondment of personnel to train experts in this field, in particular for developing countries, and facilitate at the national level public awareness of, and public access to information on, climate change. Suitable modalities should be developed to implement these activities through the relevant bodies of the Convention, taking into account Article 6 of the Convention;

(f) Include in their national communications information on programmes and activities undertaken pursuant to this Article in accordance with relevant decisions of the Conference of the Parties; and

(g) Give full consideration, in implementing the commitments under this Article, to Article 4, paragraph 8, of the Convention.

Article 11

1. In the implementation of Article 10, Parties shall take into account the provisions of Article 4, paragraphs 4, 5, 7, 8 and 9, of the Convention.

2. In the context of the implementation of Article 4, paragraph 1, of the Convention, in accordance with the provisions of Article 4, paragraph 3, and Article 11 of the Convention, and through the entity or entities entrusted with the operation of the financial mechanism of the Convention, the developed country Parties and other developed Parties included in Annex II to the Convention shall:

(a) Provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in advancing the implementation of existing commitments under Article 4, paragraph 1(a), of the Convention that are covered in

Article 10, subparagraph (a); and

(b) Also provide such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of advancing the implementation of existing commitments under Article 4, paragraph 1, of the Convention that are covered by Article 10 and that are agreed between a developing country Party and the international entity or entities referred to in Article 11 of the Convention, in accordance with that Article.

The implementation of these existing commitments shall take into account the need for adequacy and predictability in the flow of funds and the importance of appropriate burden sharing among developed country Parties. The guidance to the entity or entities entrusted with the operation of the financial mechanism of the Convention in relevant decisions of the Conference of the Parties, including those agreed before the adoption of this Protocol, shall apply *mutatis mutandis* to the provisions of this paragraph.

3. The developed country Parties and other developed Parties in Annex II to the

Convention may also provide, and developing country Parties avail themselves of, financial resources for the implementation of Article 10, through bilateral, regional and other multilateral channels.

Article 12

1. A clean development mechanism is hereby defined.

2. The purpose of the clean development mechanism shall be to assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3.

3. Under the clean development mechanism:

(a) Parties not included in Annex I will benefit from project activities resulting in certified emission reductions; and

(b) Parties included in Annex I may use the certified emission reductions accruing from such project activities to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3, as determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

4. The clean development mechanism shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Protocol and be supervised by an executive board of the clean development mechanism.

5. Emission reductions resulting from each project activity shall be certified by operational entities to be designated by the Conference of the Parties serving as the meeting of the Parties to this Protocol, on the basis of:

(a) Voluntary participation approved by each Party involved;

(b) Real, measurable, and long-term benefits related to the mitigation of climate change; and

(c) Reductions in emissions that are additional to any that would occur in the absence of the certified project activity.

6. The clean development mechanism shall assist in arranging funding of certified project activities as necessary.

7. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, elaborate modalities and procedures with the objective of ensuring transparency, efficiency and accountability through independent auditing and verification of project activities.

8. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall ensure that a share of the proceeds from certified project activities is used to cover administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

9. Participation under the clean development mechanism, including in activities mentioned in paragraph 3(a) above and in the acquisition of certified emission reductions, may involve private and/or public entities, and is to be subject to whatever guidance may be provided by the executive board of the clean development mechanism.

10. Certified emission reductions obtained during the period from the year 2000 up to the beginning of the first commitment period can be used to assist in achieving compliance in the first commitment period.

Article 13

1. The Conference of the Parties, the supreme body of the Convention, shall serve as the meeting of the Parties to this Protocol.

2. Parties to the Convention that are not Parties to this Protocol may participate as

observers in the proceedings of any session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. When the Conference of the Parties serves as the meeting of the Parties to this Protocol, decisions under this Protocol shall be taken only by those that are Parties to this Protocol.

3. When the Conference of the Parties serves as the meeting of the Parties to this Protocol, any member of the Bureau of the Conference of the Parties representing a Party to the Convention but, at that time, not a Party to this Protocol, shall be replaced by an additional member to be elected by and from amongst the Parties to this Protocol.

4. The Conference of the Parties serving as the meeting of the Parties to this Protocol shall keep under regular review the implementation of this Protocol and shall make, within its mandate, the decisions necessary to promote its effective implementation. It shall perform the functions assigned to it by this Protocol and shall:

(a) Assess, on the basis of all information made available to it in accordance with

the provisions of this Protocol, the implementation of this Protocol by the Parties, the overall effects of the measures taken pursuant to this Protocol, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved;

(b) Periodically examine the obligations of the Parties under this Protocol, giving due consideration to any reviews required by Article 4, paragraph 2(d), and Article 7, paragraph 2, of the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge, and in this respect consider and adopt regular reports on the implementation of this Protocol;

(c) Promote and facilitate the exchange of information on measures adopted by the Parties to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under this Protocol;

(d) Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects, taking into account the differing circumstances, responsibilities and capabilities of the Parties and their respective commitments under this Protocol;

(e) Promote and guide, in accordance with the objective of the Convention and the provisions of this Protocol, and taking fully into account the relevant decisions by the Conference of the Parties, the development and periodic refinement of comparable methodologies for the effective implementation of this Protocol, to be agreed on by the Conference of the Parties serving as the meeting of the Parties to this Protocol;

(f) Make recommendations on any matters necessary for the implementation of this Protocol;

(g) Seek to mobilize additional financial resources in accordance with

Article 11, paragraph 2;

(h) Establish such subsidiary bodies as are deemed necessary for the implementation of this Protocol;

(i) Seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies; and

(j) Exercise such other functions as may be required for the implementation of this Protocol, and consider any assignment resulting from a decision by the Conference of the Parties.

5. The rules of procedure of the Conference of the Parties and financial procedures applied under the Convention shall be applied *mutatis mutandis* under this Protocol, except as may be otherwise decided by consensus by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

6. The first session of the Conference of the Parties serving as the meeting of the Parties to this Protocol shall be convened by the secretariat in conjunction with the first session of the Conference of the Parties that is scheduled after the date of the entry into force of this Protocol. Subsequent ordinary sessions of the Conference of the Parties serving as the meeting of the Parties to this Protocol shall be held every year and in conjunction with ordinary sessions of the Conference of the Parties, unless otherwise decided by the Conference of the Parties serving as the meeting of the Parties to this Protocol.

7. Extraordinary sessions of the Conference of the Parties serving as the meeting of the

Parties to this Protocol shall be held at such other times as may be deemed necessary by the Conference of the Parties serving as the meeting of the Parties to this Protocol, or at the written request of any Party, provided that, within six months of the request being communicated to the Parties by the secretariat, it is supported by at least one third of the Parties.

8. The United Nations, its specialized agencies and the International Atomic Energy

Agency, as well as any State member thereof or observers thereto not party to the Convention, may be represented at sessions of the Conference of the Parties serving as the meeting of the Parties to this Protocol as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by this Protocol and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties serving as the meeting of the Parties to this Protocol as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure, as referred to in

paragraph 5 above.

Article 14

1. The secretariat established by Article 8 of the Convention shall serve as the secretariat of this Protocol.

2. Article 8, paragraph 2, of the Convention on the functions of the secretariat, and

Article 8, paragraph 3, of the Convention on arrangements made for the functioning of the secretariat, shall apply *mutatis mutandis* to this Protocol. The secretariat shall, in addition, exercise the functions assigned to it under this Protocol.

Article 15

1. The Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation established by Articles 9 and 10 of the Convention shall serve as, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Protocol. The provisions relating to the functioning of these two bodies under the Convention shall apply *mutatis mutandis* to this Protocol. Sessions of the meetings of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of this Protocol shall be held in conjunction with the meetings of, respectively, the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation of the Convention.

2. Parties to the Convention that are not Parties to this Protocol may participate as observers in the proceedings of any session of the subsidiary bodies. When the subsidiary bodies serve as the subsidiary bodies of this Protocol, decisions under this Protocol shall be taken only by those that are Parties to this Protocol.

3. When the subsidiary bodies established by Articles 9 and 10 of the Convention exercise their functions with regard to matters concerning this Protocol, any member of the Bureaux of those subsidiary bodies representing a Party to the Convention but, at that time, not a party to this Protocol, shall be replaced by an additional member to be elected by and from amongst the Parties to this Protocol.

Article 16

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, as soon as practicable, consider the application to this Protocol of, and modify as appropriate, the multilateral consultative process referred to in Article 13 of the Convention, in the light of any relevant decisions that may be taken by the Conference of the Parties. Any multilateral consultative process that may be applied to this Protocol shall operate without prejudice to the procedures and mechanisms established in accordance with Article 18.

Article 17

The Conference of the Parties shall define the relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading. The Parties included in Annex B may participate in emissions trading for the purposes of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that Article.

Article 18

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, approve appropriate and effective procedures and mechanisms to determine and to address cases of non-compliance with the provisions of this Protocol, including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance. Any procedures and mechanisms under this Article entailing binding consequences shall be adopted by means of an amendment to this Protocol.

Article 19

The provisions of Article 14 of the Convention on settlement of disputes shall apply *mutatis* *mutandis* to this Protocol.

Article 20

1. Any Party may propose amendments to this Protocol.

2. Amendments to this Protocol shall be adopted at an ordinary session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. The text of any proposed amendment to this Protocol shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate the text of any proposed amendments to the Parties and signatories to the Convention and, for information, to the Depositary.

3. The Parties shall make every effort to reach agreement on any proposed amendment to this Protocol by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted amendment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

4. Instruments of acceptance in respect of an amendment shall be deposited with the Depositary. An amendment adopted in accordance with paragraph 3 above shall enter into force for those Parties having accepted it on the ninetieth day after the date of receipt by the Depositary of an instrument of acceptance by at least three fourths of the Parties to this Protocol.

5. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits with the Depositary its instrument of acceptance of the said amendment.

Article 21

1. Annexes to this Protocol shall form an integral part thereof and, unless otherwise expressly provided, a reference to this Protocol constitutes at the same time a reference to any annexes thereto. Any annexes adopted after the entry into force of this Protocol shall be restricted to lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character.

2. Any Party may make proposals for an annex to this Protocol and may propose amendments to annexes to this Protocol.

3. Annexes to this Protocol and amendments to annexes to this Protocol shall be adopted at an ordinary session of the Conference of the Parties serving as the meeting of the Parties to this Protocol. The text of any proposed annex or amendment to an annex shall be communicated to the Parties by the secretariat at least six months before the meeting at which it is proposed for adoption. The secretariat shall also communicate the text of any proposed annex or amendment to an annex to the Parties and signatories to the Convention and, for information, to the Depositary.

4. The Parties shall make every effort to reach agreement on any proposed annex or amendment to an annex by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the annex or amendment to an annex shall as a last resort be adopted by a three-fourths majority vote of the Parties present and voting at the meeting. The adopted annex or amendment

to an annex shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties for their acceptance.

5. An annex, or amendment to an annex other than Annex A or B, that has been adopted in accordance with paragraphs 3 and 4 above shall enter into force for all Parties to this Protocol six months after the date of the communication by the Depositary to such Parties of the adoption of the annex or adoption of the amendment to the annex, except for those Parties that have notified the Depositary, in writing, within that period of their non-acceptance of the annex or amendment to the annex. The annex or amendment to an annex shall enter into force for Parties which withdraw their notification of non-acceptance on the ninetieth day after the date on which withdrawal of such notification has been received by the Depositary.

6. If the adoption of an annex or an amendment to an annex involves an amendment to this Protocol, that annex or amendment to an annex shall not enter into force until such time as the amendment to this Protocol enters into force.

7. Amendments to Annexes A and B to this Protocol shall be adopted and enter into force in accordance with the procedure set out in Article 20, provided that any amendment to Annex B shall be adopted only with the written consent of the Party concerned.

Article 22

1. Each Party shall have one vote, except as provided for in paragraph 2 below.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to this Protocol. Such an organization shall not exercise its right to vote if any of its member States exercises its right, and vice versa.

Article 23

The Secretary-General of the United Nations shall be the Depositary of this Protocol.

Article 24

1. This Protocol shall be open for signature and subject to ratification, acceptance or approval by States and regional economic integration organizations which are Parties to the Convention. It shall be open for signature at United Nations Headquarters in New York from

16 March 1998 to 15 March 1999. This Protocol shall be open for accession from the day after the date on which it is closed for signature. Instruments of ratification, acceptance, approval or accession shall be deposited with the Depositary.

2. Any regional economic integration organization which becomes a Party to this Protocol without any of its member States being a Party shall be bound by all the obligations under this Protocol. In the case of such organizations, one or more of whose member States is a Party to this Protocol, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Protocol. In such cases, the organization and the member States shall not be entitled to exercise rights under this Protocol concurrently.

3. In their instruments of ratification, acceptance, approval or accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Protocol. These organizations shall also inform the Depositary, who shall in turn inform the Parties, of any substantial modification in the extent of their competence.

Article 25

1. This Protocol shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.

2. For the purposes of this Article, "the total carbon dioxide emissions for 1990 of the Parties included in Annex I" means the amount communicated on or before the date of adoption of this Protocol by the Parties included in Annex I in their first national communications submitted in accordance with Article 12 of the Convention.

3. For each State or regional economic integration organization that ratifies, accepts or approves this Protocol or accedes thereto after the conditions set out in paragraph 1 above for entry into force have been fulfilled, this Protocol shall enter into force on the ninetieth day following the date of deposit of its instrument of ratification, acceptance, approval or accession.

4. For the purposes of this Article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of the organization.

Article 26

No reservations may be made to this Protocol.

Article 27

1. At any time after three years from the date on which this Protocol has entered into force for a Party, that Party may withdraw from this Protocol by giving written notification to the Depositary.

2. Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.

3. Any Party that withdraws from the Convention shall be considered as also having withdrawn from this Protocol.

Article 28

The original of this Protocol, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

DONE at Kyoto this eleventh day of December one thousand nine hundred and ninety-seven.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have affixed their signatures to this Protocol on the dates indicated.

Annex A

Greenhouse gases

Carbon dioxide (CO_2)

Methane (CH_4)

Nitrous oxide (N_2O)

Hydrofluorocarbons (HFCs)

Perfluorocarbons (PFCs)

Sulphur hexafluoride (SF_6)

Sectors/source categories

Energy

Fuel combustion

Energy industries

Manufacturing industries and construction

Transport

Other sectors

Other

Fugitive emissions from fuels

Solid fuels

Oil and natural gas

Other

Industrial processes

Mineral products

Chemical industry

Metal production

Other production

Production of halocarbons and sulphur hexafluoride

Consumption of halocarbons and sulphur hexafluoride

Other

Solvent and other product use

Agriculture

Enteric fermentation

Manure management

Rice cultivation

Agricultural soils

Prescribed burning of savannas

Field burning of agricultural residues

Other

Waste

Solid waste disposal on land

Wastewater handling

Waste incineration

Other

Annex B

Party Quantified emission limitation or

reduction commitment

(percentage of base year or period)

Australia 108

Austria 92

Belgium 92

Bulgaria* 92

Canada 94

Croatia* 95

Czech Republic* 92

Denmark 92

Estonia* 92

European Community 92

Finland 92

France 92

Germany 92

Greece 92

Hungary* 94

Iceland 110

Ireland 92

Italy 92

Japan 94

Latvia* 92

Liechtenstein 92

Lithuania* 92

Luxembourg 92

Monaco 92

Netherlands 92

New Zealand 100

Norway 101

Poland* 94

Portugal 92

Romania* 92

Russian Federation* 100

Slovakia* 92

Slovenia* 92

Spain 92

Sweden 92

Switzerland 92

Ukraine* 100

United Kingdom of Great Britain and Northern Ireland 92

United States of America 93

* Countries that are undergoing the process of transition to a market economy.

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Divider Title: **D**

List of Signatories to the Kyoto Protocol

The text of the Protocol to the UNFCCC was adopted at the third session of the Conference of the Parties to the UNFCCC in Kyoto, Japan, on 11 December 1997; it was opened for signature on 16 March 1998 at United Nations Headquarters, New York. It will remain open for signature until 15 March 1999.

The Protocol is subject to ratification, acceptance, approval or accession by Parties to the Convention. It shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Annex I Parties which accounted in total for at least 55 % of the total carbon dioxide emissions for 1990 from that group, have deposited their instruments of ratification, acceptance, approval or accession.

as at 29-September-98, 57 countries have signed the Kyoto Protocol

(in chronological order)

1998 March April May June July August September October November December

March 1998

Country Name	Date of Signature	Date of Ratification
Maldives	16-Mar-98	
Samoa	16-Mar-98	
Antigua and Barbuda	16-Mar-98	
Switzerland	16-Mar-98	
St Lucia	16-Mar-98	
Argentina	16-Mar-98	
Marshall Islands	17-Mar-98	
Micronesia	17-Mar-98	
Saint Vincent and Grenadines	19-Mar-98	
Seychelles	20-Mar-98	

April 1998

Country Name	Date of Signature	Date of Ratification
Philippines	15-Apr-98	
Malta	15-Apr-98	
Costa Rica	27-Apr-98	
Japan	27-Apr-98	
European Community	29-Apr-98	
Austria	29-Apr-98	
Germany	29-Apr-98	
Finland	29-Apr-98	
France	29-Apr-98	
Portugal	29-Apr-98	
Sweden	29-Apr-98	
Belgium	29-Apr-98	
Spain	29-Apr-98	
Denmark	29-Apr-98	
Greece	29-Apr-98	
Netherlands	29-Apr-98	
Luxembourg	29-Apr-98	
United Kingdom of Great Britain and Northern Ireland	29-Apr-98	
Ireland	29-Apr-98	
Italy	29-Apr-98	
Brazil	29-Apr-98	
Norway	29-Apr-98	
Monaco	29-Apr-98	
Australia	29-Apr-98	
Canada	29-Apr-98	

May 1998

Country Name	Date of Signature	Date of Ratification
New Zealand	22-May-98	
China	29-May-98	

June 1998

Country Name	Date of Signature	Date of Ratification
El Salvador	8-June-98	
Panama	8-June-98	
Mexico	9-June-98	
Chile	17-June-98	
Liechtenstein	28-June-98	

July 1998

Country Name	Date of Signature	Date of Ratification
Nicaragua	07-July-98	
Bolivia	09-July-98	
Guatemala	10-July-98	
Indonesia	13-July-98	
Poland	15-July-98	
Uruguay	29-July-98	

August 1998

Country Name	Date of Signature	Date of Ratification
Zambia	05-Aug-98	
Paraguay	25-Aug-98	

September 1998

Country Name	Date of Signature	Date of Ratification
Cook Islands	16-Sep-98	
Fiji	17-Sep-98	17-Sep-98
Bulgaria	18-Sep-98	
Lithuania	21-Sep-98	
Republic of Korea	25-Sep-98	
Turkmenistan	27-Sep-98	
Solomon Islands	29-Sep-98	

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Divider Title: **E**

PRESIDENT CLINTON'S $6 BILLION CLIMATE CHANGE INITIATIVE

> "Our overriding environmental challenge tonight is the worldwide problem of climate change, global warming, the gathering crisis that requires worldwide action...We have it in our power to act right here, right now. I propose $6 billion in tax cuts and research and development to encourage innovation, renewable energy, fuel-efficient cars, energy-efficient homes." President Bill Clinton, State of the Union address, January 27, 1998

A $6 billion initiative over 5 years to cut greenhouse gas emissions. The Administration is proposing a $6.3 billion package of tax incentives and research and development investment to stimulate development and use of energy-efficient technologies and clean energy sources. The initiative was announced on October 22, 1997, by the President and builds on U.S. government efforts to encourage voluntary reduction of greenhouse gas emissions.

$3.6 billion in tax credits. The proposed package contains $3.6 billion over the next 5 years in tax cuts for energy efficient purchases and renewable energy.

- Tax credits for fuel efficient cars. The tax package includes tax credits of $3,000 to $4,000 for consumers who purchase advanced technology, highly fuel efficient vehicles -- expected to total $660 million over the next five years.
- Tax credits for rooftop solar systems. Another tax provision provides a 15 percent credit (up to $2,000) for purchases of rooftop solar electricity and hot water systems -- to provide incentives for meeting the Million Solar Roofs goal.
- Other tax credits for energy efficiency. The tax cuts also include a 20 percent credit (subject to a cap) for purchasing energy-efficient building equipment, a $2,000 credit for purchasing energy-efficient new homes, an extension of the wind and biomass tax credit, and a 10 percent investment credit for the purchase of combined heat and power systems.

$2.7 billion in new R&D spending. The package also contains $2.7 billion over the next 5 years in additional research and development spending -- covering the four major carbon-emitting sectors of the economy (buildings, industry, transportation, and electricity), plus carbon removal and sequestration, Federal facilities, and crossing cutting analyses and research. Selected examples of the R&D effort include:

- Partnership for a New Generation of Vehicles (PNGV). PNGV is a government-industry effort to develop attractive, affordable cars that meet all applicable safety and environmental standards and get up to three times the fuel efficiency of today's cars. In FY99, the combined proposal for PNGV is $277 million, up from $227 million appropriated in FY98. Similar government-industry efforts are proposed to develop cleaner, more efficient diesel engines for both light trucks and heavy trucks.
- Renewable energy. The package includes expanded research partnerships for key renewable technologies such as wind, photovoltaics, geothermal, biomass, and hydropower to accelerate price reductions and improve performance. The FY99 budget proposes a $100 million increase in DOE for solar and renewable energy R&D -- a 37 percent increase over FY98.

Climate Change Technology Initiative:
$3.6 Billion in Tax Incentives

Last fall, the President announced a nine-point plan to begin addressing climate change, including a five-year, $5 billion package of tax incentives and research and development spending to spur energy efficiency and help develop low-carbon energy sources. The President's budget proposes a $6.3 billion initiative over 5 years -- including $3.6 billion of tax incentives that will encourage energy efficiency and help develop low-carbon energy sources (see Table 1). The initiative covers the four major carbon-emitting sectors of the economy (buildings, industry, transportation, and electricity).

TABLE 1

Tax Incentives	Revenue effect (dollars in billions) Total FY1999-2003
Buildings	
Provide tax credit for energy-efficient building equipment	-1.4
Provide tax credit for new energy-efficient homes	-0.2
Provide tax credit for rooftop solar systems	-0.1
Transportation	
Provide tax credits for highly fuel efficient vehicles	-0.7
Equalize tax treatment of parking and transit and vanpool benefits	-0.1
Industry	
Provide tax credit for combined heat and power systems	-0.9
Provide tax credit for certain circuit breaker equipment	*
Provide tax credit for PFC/HFC recycling equipment	*
Electricity	
Extend tax credit for electricity produced from wind and biomass	-0.2
Climate Change Tax Initiative Total	-3.6

* Less than -$50 million.

BUILDINGS

- *Tax credit for energy-efficient building equipment.* Improvements in the energy efficiency of both residential and commercial buildings can be obtained through tax credits that encourage the purchase of highly efficient equipment: fuel cells, electric heat pump water heaters, natural gas water heaters, electric heat pumps, natural gas heat pumps, and advanced central air conditioners. The credit would be 20 percent of the cost of the investment, subject to a cap. The credit would generally be available for equipment purchased between January 1, 1999 and December 31, 2003.

- *Tax credit for new energy-efficient homes.* The energy efficiency of new homes could be improved through the use of energy efficient building practices and efficient heating and cooling equipment. To encourage the purchase of new highly energy-efficient homes, a tax credit would be provided equal to one percent of the purchase price (up to a maximum credit of $2,000) of new homes that greatly exceed building standards. The full credit would be available for homes purchased between January 1, 1999 and December 31, 1003. A credit of up to $1,000 would be available for homes purchased between January 1, 2004 and December 31, 2005.

- *Tax credit for rooftop solar systems.* Solar energy systems have the potential to reduce greenhouse gas emissions and energy costs for businesses and individuals. A tax credit equal to 15 percent of the cost of rooftop photovoltaic (PV) systems and solar water heating systems would make these systems more affordable and encourage their purchase. The maximum credit would be $2,000 for PV systems and $1,000 or solar water heating systems. The credit would apply to equipment placed in service between January 1, 1999 and December 31, 2003 for solar water heating systems, and December 31, 2005 for rooftop PV systems.

INDUSTRY

- *Tax credit for combined heat and power (CHP) systems.* CHP systems use thermal energy that is otherwise wasted in producing electricity by more conventional methods. To encourage and accelerate investment in CHP equipment, a 10 percent tax credit would be provided for investments in CHP systems that meet certain energy efficiency requirements. The credit would apply to property placed in service between January 1, 1999 and December 31, 2003.

- *Tax credit for replacement of certain circuit breaker equipment.* Sulfur hexafloride (SF6), an extremely harmful greenhouse gas, is used in some large power circuit breakers used in the transmission and distribution of electric power. A 10 percent tax credit would be provided for the purchase of new circuit breakers that replace certain circuit breakers that are prone to leak SF6. The credit would apply to new equipment placed in service between January 1, 1999 and December 31, 2003.

- *Tax credit for perfluorocarbon (PFC) and hydrofluorocarbon (HFC) recycling equipment.* PFCs and HFCs are extremely potent greenhouse gases and are used extensively in the semiconductor manufacturing industry. A 10 percent tax credit would be provided for the purchase of PFC/HFC recycling equipment to recover gases used in the production of semiconductors. The credit would apply to equipment placed in service between January 1, 1999 and December 31, 2003.

TRANSPORTATION

- *Tax credit for highly fuel efficient vehicles.* Cars and light trucks (including minivans, sport utilities, and pickups) currently account for 20 percent of greenhouse gas emissions. Tax credits for highly fuel efficient vehicles will help to move vehicles that are ultra efficient from the laboratory to the highway. Tripling a car's fuel economy reduces its emissions of carbon dioxide by 67 percent; doubling a car's fuel economy reduces its emissions of carbon dioxide by 50 percent.

    - *Credit for vehicles with triple the base fuel economy.* This credit would be $4,000 for each vehicle that gets three times the base fuel economy for its class. The $4,000 credit would be available for purchases of qualifying vehicles beginning January 1, 2003. The credit amount would phase down to $3,000 in 2007, $2,000 in 2008, and $1,000 in 2009, and would phase out in 2010.

    - *Credit for vehicles with twice the base fuel economy.* This credit would be $3,000 for each vehicle that gets twice the base fuel economy for its class. The $3,000 credit would be available for purchases of qualifying vehicles beginning January 1, 2000. The credit amount would phase down to $2,000 in 2004, $1,000 in 2005, and would phase out in 2006.

    - These credits would be available for all qualifying vehicles, including cars, minivans, sport utility vehicles, pickup trucks, and electric vehicles.

    - The Administration looks forward to working with the auto manufacturers and other interested parties on the details of the tax incentives.

- *Equalize the tax treatment of parking and transit benefits.* This initiative would equalize the tax treatment of parking benefits and transit and vanpool benefits. To encourage public transportation and vanpools, employers would be allowed to provide tax free transit and vanpool benefits in lieu of compensation, up to the same amount that they can provide for parking beginning January 1, 1999.

ELECTRICITY

- *Extension of tax credit for electricity produced from wind and biomass.* To encourage the production of electricity from wind and certain biomass, a 5-year extension is proposed for the present 1.5 cent per kilowatt hour tax credit (adjusted for inflation after 1992). The present credit, which applies to facilities placed in service before July 1, 1999, would be extended for five years.

Climate Change Technology Initiative: $2.7 Billion in Research and Development

Last fall, the President announced a nine-point plan to begin addressing climate change, including a five-year, $5 billion package of tax incentives and research and development spending to spur energy efficiency and help develop low-carbon energy sources. The President's budget proposes a $6.3 billion initiative over 5 years -- including $2.7 billion in increased R&D spending (see Table 1). For FY 1999, the budget shows $473 million in increased spending on climate-change related technologies ($1.292 billion vs. $819 million in FY 1998) and $421 million in tax incentives, for a total first-year initiative of $894 million.

TABLE 1

Direct Programs	Dollars in Millions				
BY AGENCY	1997 Actual	1998 Estimate	1999 Proposed	Dollar Change: 1998 to 1999	Total Increase 1999-2003
Energy	657	729	1060	+331	+1,899
Environmental Protection Agency	86	90	205	+115	+677
Housing and Urban Development	--	--	10	+10	+10
Commerce	--	--	7	+7	+38
Agriculture	--	--	10	+10	+86
R&D Program Total	743	819	1,292	+473	+2,710
Climate Change Technology Total	743	819	1,713	+894	+6,345

TABLE 2

Direct Programs	Dollars in Millions		
BY AREA OF EFFORT	1998 Estimate	1999 Proposed	Dollar Change: 1998 to 1999
Buildings	146	264	+118
Industry	156	216	+60
Transportation	246	356	+110
Electricity	220	332	+112
Carbon Sequestration and Cross-Cutting Research	0	42	+42
Policy Analysis, Market Incentives	6	26	+20
Program Direction	45	57	+12
Climate Change Technology Direct R&D Total	819	1,292	+473

Columns may not add due to rounding.

The principal focus of the initiative is an R&D portfolio that covers the four major carbon-emitting sectors of the economy (buildings, industry, transportation, and electricity), plus carbon removal and sequestration, Federal facilities, and crossing cutting analyses and research. (In Table 2, Federal facilities are included under Buildings.)

BUILDINGS

- *Partnership for Advanced Technologies in Housing (PATH).* HUD will lead a team that includes DOE and EPA to work with the building industry to develop, demonstrate, and deploy housing technologies and practices that are inexpensive, highly efficient, and attractive to consumers. This effort will also focus on streamlining Federal, state, and local codes and regulations, education outreach, and creating local markets for PATH housing using pilot sites and demonstrations.

- *Million Solar Roofs.* In June of 1997, the President announced an initiative to encourage the installation of one million solar hot water and solar photovoltaic (PV) installations on buildings over the next 10 years. DOE will fund cost-reduction R&D for solar thermal and rooftop PV systems, and will establish partnerships with communities, builders, and other Federal agencies to promote the use of building-mounted solar systems.

- *Increased R&D.* In addition to encouraging the deployment of the best available technologies, DOE is also increasing its research on building systems modeling, to help architectural engineers, and on major components such as next-generation heat-pumps, cooling systems, furnaces, and lighting.

INDUSTRY

- *Partnerships with industry.* DOE works closely with industry on technology roadmaps and plans to reduce energy consumption and secure early reductions in greenhouse gas emissions. Industries already engaged in this effort include aluminum, steel, glass, paper and forest products, metal casting, and chemicals. These technology roadmaps form the basis for cost-shared R&D with industry teams and consortia.

    - This work will be enhanced within DOE, and complementary efforts will be undertaken by EPA, USDA, and DOC (NIST), which will lead to voluntary greenhouse gas reduction programs within industry.

- *Advanced power generation.* R&D will be accelerated on advanced turbines, fuel cells, and other technologies, and new approaches to capturing useful work or heat through several temperature stages (e.g. electric generation, industrial process steam, steam building heat) in factories or commercial buildings will be demonstrated. When commercially accepted, these systems will allow us to capture the waste heat the Nation now throws away.

TRANSPORTATION

- *Partnership for a New Generation of Vehicles (PNGV).* A government-industry effort to develop attractive, affordable cars that meet all applicable safety and environmental standards and get up to three times the fuel efficiency of today's cars, or roughly 80 miles per gallon. Five agencies participate in PNGV -- DOE is the largest player, followed by EPA, DOC, NSF, and DOT.

  - The program will lead to "concept cars" in the year 2000 and production prototypes in 2004.

  - This winter, industry and the government have announced the designs that they will pursue -- hybrid vehicles that combine a power source (a piston engine or fuel cell) with battery storage and electric motors.

  - In FY99, the combined request for PNGV-related work in those agencies is $277 million, up from $227 million appropriated in FY98.

- *Partnerships for Light and Heavy Trucks.* Similar government-industry efforts are proposed to develop cleaner, more efficient diesel engines for both light trucks and heavy trucks.

  - DOE has been engaged in R&D on cleaner, more efficient large truck engines for several years, and that effort will be stepped up in FY99, in coordination with increased work on large diesel engines at EPA and DOD.

  - A government-industry partnership is currently being formed for R&D on smaller diesel engines suitable for light trucks and sport-utility vehicles (SUVs), which are the fastest-growing class of passenger vehicles. A clean, efficient diesel engine could improve the fuel-economy of light trucks and SUVs by 35 percent.

- *Sustainable Transportation.* This initiative would promote alternatives to single-occupancy vehicle travel using pilot projects in selected communities modeled after the highly successful approach adopted by the Portland, Oregon metropolitan region.

  - The sustainable transportation programs in EPA and DOE will be coordinated with existing and planned DOT programs. (DOT is not funded within the Climate Change Technology Initiative, however.)

ELECTRICITY

- *Renewable energy.* Expand research partnerships for key renewable technologies such as wind, photovoltaics, geothermal, biomass, and hydropower to accelerate price reductions and improve performance. The same programs will also be supporting increased R&D in hydrogen production and storage and in superconductivity.
  - The FY99 budget proposes a $100 million increase in DOE for solar and renewable energy R&D -- a 37 percent increase over FY98.
- *Nuclear power-plant life extension.* DOE will initiate an R&D effort addressing the critical technology needs to allow currently-operating nuclear power plants to safely extend their operating lifetimes by 10 to 20 years. Under current NRC licences, approximately 60 gigawatts of electric generating capacity would have to be retired between now and 2015. Providing the technologies necessary to safely operate these plants for another 10 to 20 years will make the transition to other low-carbon energy sources, such as solar and renewable energy, much easier.
- *Innovative coal combustion technologies.* In FY99, DOE will initiate a research program on innovative new approaches to coal combustion that offer the possibility of much lower carbon emissions than existing technologies.

CARBON REMOVAL AND SEQUESTRATION.

- *Sequestration R&D.* Research initiatives are being funded in both basic and applied research to find ways to remove carbon dioxide (CO_2) from combustion gases and sequester (store) the carbon so that it does not enter the atmosphere.
  - DOE's basic science office will engage in biochemical and microbial research.
  - DOE's fossil energy office will conduct an applied sequestration R&D program, jointly managed with the basic science office.
  - USDA will initiate research on enhancing the carbon-sequestering capabilities of agricultural species. NIST will support complementary biotechnology work on plant metabolism and carbon use.

CROSSCUTTING ANALYSIS AND RESEARCH

- *Emissions credits, incentives, and trading.* EPA will lead an effort, assisted by DOE, to evaluate options for a domestic trading system and early reduction program in industry. The Federal government will work with stakeholders to understand their views and interests, and to build the institutional capacity needed to implement a carbon emissions credit and trading system.

- *Program and science assessments.* DOE will lead efforts to assess the implications of new research results produced by the Global Change Research Program, in order to determine what geographic and technological responses may be appropriate.

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U.S. Intervention
on Flexible Mechanisms

Joint Session of the
Subsidiary Body on Implementation
and the
Subsidiary Body on Scientific and Technological Advice

Ambassador Mark G. Hambley
June 2, 1998
Bonn, Germany

Thank you very much, Mr. Chairman:

Please permit me to take this opportunity to congratulate you and your distinguished colleague, Mr. Chow Kok Kee, on your election as chairmen of the Subsidiary Body on Implementation and of the Subsidiary Body on Scientific and Technological Advice, respectively.

We would also like to acknowledge with appreciation the words expressed by our two distinguished guests – Ministers Alsogaray and Topfer. I would also like to thank both you, Chairman Kante, as well as the Executive Director of the Convention Secretariat, Mr. Michael Cutajar, for your kind words of condolence expressed on the loss of our good friend and colleague, Mr. J.R. Spradley. As a previous member of this delegation – and as a dynamic, knowledgeable and committed member of the business community – I wish to underscore how much his vital presence will be missed during our proceedings.

Mr. Chairman,

There is no doubt that we believe that flexibility instruments are key to the efficient implementation of the ambitious targets agreed to by Annex I Parties at Kyoto. These mechanisms and instruments include not only the differentiated nature of the targets agreed upon and the multi-year commitment period, but also mechanisms and arrangements contained in various specific provisions of the protocol text itself, including Article 4, Article 6, Article 12, and Article 17.

This afternoon I would like to briefly comment on four of these mechanisms – AIJ, Emissions Trading, JI and the Clean Development Mechanism, in anticipation that we will have additional opportunities to elaborate our views further during the course of this meeting and in whatever processes that may follow.

Activities Implemented Jointly

We welcome the continued work on specific projects undertaken through the pilot phase of Activities Implemented Jointly. These projects continue to provide experience on issues related to "additionality," to monitoring and verification, and to the various source, sink and sector-specific issues that will also be relevant to Joint Implementation under Article 6 and to the Clean Development Mechanism under Article 12.

However, we firmly believe that projects – good projects that lead to legitimate emissions reductions and that qualify under rules developed for Articles 6 and 12 – that were begun under AIJ could have their reductions counted in accordance with those articles. We do not wish to penalize those visionaries who took the first steps that made our current regime possible. AIJ should continue to be applied (in accordance with decisions 5 CP/1, 8 CP/2, and 10 CP/3), as it remains a useful process to further understand project-based activities. However, it need not be the focus of the next stage of our work. Rather, it is time to harvest the lessons from our AIJ effort. As is indicated in document SBSTA/1998/INF.3, we have had 76 projects in agriculture, energy, and forestry to consider). We can use this invaluable information resource to act on the innovative arrangements agreed in Kyoto.

Emissions Trading

The key principles underlying U.S. support for emissions trading are environmental effectiveness and economic efficiency: emissions trading will allow those Parties that assumed binding emissions targets to reach the Kyoto Protocol's environmental goals at the lowest cost.

We believe that a credible emissions trading system depends on strong national measurement, reporting and compliance regimes, and that trading rules can be used to strengthen incentives for such regimes.

The U.S. favors a simple set of rules and guidelines for trading that (1) promote cost-effective achievement of the agreed Kyoto targets, (2) promote compliance with the Protocol's requirements for accurate measurement, complete reporting, and target attainment, and (3) address national compliance incentives and risk issues.

More specifically, the rules should address the following elements:

- What can be traded: Parties can transfer or acquire any part of their assigned amounts (their targets). These could be expressed as tons of carbon dioxide equivalent, meaning that all gases can be traded on the basis of their global warming potentials (GWPs).

- Who can trade: In addition to governments, we believe that the private sector can participate in trading.

- Who is responsible: The international trading system should establish provisions for risk – placed on the seller, buyer or some combination. Countries must work together to solve this complex issue.

- When to trade: Parties must meet certain conditions for monitoring, reporting, and registration systems as described below. Before the start of official trading, contracts (involving governments and/or the private sector) for future delivery of assigned amounts will likely take place. Parties cannot undertake formal trading of assigned amounts until the Protocol comes into force and until they have ratified it.

- Conditions for trading: In order to strengthen incentives for compliance with national budgets, and to build confidence in trading, each participating Party must have a domestic emissions measurement and reporting system that follows agreed guidelines for emissions inventories and reporting, and a national registry system to assure that international transfers are legally authorized (i.e., that the government agency or firm seeking to trade has the legal right to them) and to record transfers and acquisitions and report them to the Secretariat. Parties should not be allowed to participate in trading if they have not established or are not implementing these systems (which could take various forms). We suggest undertaking work to develop national measurement guidelines and supplementary reporting guidelines (building on existing inventory methods and reporting guidelines as required by Articles 5 and 7), for adoption at a future COP.

- Limitations on trading: Apart from the preconditions regarding measurement and registration systems and reporting, the U.S. supports only one additional limitation on Parties' rights to trade: a Party should not be able to sell any further tons once it has emitted its allowed amount during the commitment period (i.e., there should be no "deficit trading"). We believe strongly that there is no basis – no basis – in the Protocol for establishing, in a decision of the Parties, percentage limits on how much of a Party's budget may be sold, or for establishing where or how Parties must meet their commitments. And in this regard, we wish to register our surprise – indeed our disappointment – at some of the suggestions we have heard which appear to reopen the carefully crafted language which we reached after hours of arduous negotiations in Kyoto.

Joint Implementation

We believe that joint implementation will also be important to enabling developed country Parties to meet their targets cost-effectively. We note that the Protocol does not require any additional rules in order for joint implementation to go forward, but anticipate that approaches to "additionality" under the CDM will inform discussions of this issue with respect to joint implementation.

Clean Development Mechanism (CDM)

Given the opportunity provided in the Kyoto Protocol to begin CDM activities in 2000, developing the operational rules and modalities is urgent. The U.S. supports action to formulate agreed rules, and to allow implementation of CDM activities to proceed as soon as possible.

We believe that it would be premature to consider limiting the extent to which emission reductions resulting from CDM project activities may count against targets as long as these activities result from legitimate (i.e., "additional") projects; we must encourage the private sector to participate in CDM projects, and not chill their interest with administrative restrictions and bureaucracy.

Sink activities, including sustainable forest management, should be allowed and encouraged under the CDM (we note, however, that this will necessitate the development of better operational guidelines to allow a determination of "additionality" for sink projects).

The "share of the proceeds" from project activities, as provided for in Article 12 of the Protocol, should be defined in terms of emissions and be based on the value of the emissions reductions achieved by the specific project activities – not the value of the underlying project itself; the "share" should be small so as not to dampen interest in undertaking CDM activities.

We must avoid potential conflicts of interest (for example, CDM "operating entities" should not also play a role in disbursing CDM adaptation funds), and in administering the adaptation portion of the CDM (i.e., funds to assist particularly vulnerable countries in their efforts to adapt to the adverse impacts of climate change).

The U.S. supports efforts to develop project guidelines/criteria that promote real, measurable and long-term benefits, and include mechanisms for auditing and verification. To facilitate CDM operations and lower transaction costs, we urge the development of rules that will promote objective decisions on project acceptance (for example, by ensuring acceptance of all projects within a particular sector that meet a certain standard of "additionality") rather than proceeding to measure "additionality" on a case-by-case basis. The Executive Board could have a role in the development of such guidelines/criteria.

We believe that lessons learned in the current pilot phase of "Activities Implemented Jointly" will be instructive and should be considered.

On process, we, like our EU colleagues look forward to the creation of contact groups to discuss these issues. We are aware of and understand the concerns of many delegations, particularly small delegations, with the proliferation of groups. For this reason, we suggest that only two contact groups be established, one under each subsidiary body. In our view, each group could be asked to consider multiple issues.

Finally, we wish to draw your attention to a presentation by Dr. Brian J. McLean, the Director of the Acid Rain Program at the U.S. Environmental Protection Agency, entitled, "The U.S. Experience with SO2 Emissions Trading." The session will take place this evening at six p.m., in the Haydn Room. I encourage you all to attend – we believe that many of the lessons learned by the U.S. in establishing the SO2 trading program are readily applicable to the creation of a worldwide emissions trading regime. Dr. McLean will be available to answer your questions at the end of the presentation.

Thank you very much, Mr. Chairman.

U.S. Delegation
Statement One
Second Review of the Adequacy of Subparagraphs (a) and (b) of Article 4.2
U.N. Framework Convention on Climate Change
Subsidiary Body on Implementation
Bonn, June 3, 1998

Thank you, Mr. Chairman. We welcome this opportunity to consider the second review of adequacy of subparagraphs (a) and (b) of Article 4.2 of the U.N. Framework Convention on Climate Change.

In this connection, we recall the discussions of this issue in the Intergovernmental Negotiating Committee in preparing for the First Session of the Conference of the Parties in 1995, as well as the discussions of this issue that took place in Berlin.

A number of bases were put forward for the conclusion that subparagraphs (a) and (b) of Article 4.2 were not adequate.

One such basis was that the number of Parties bound by these subparagraphs was insufficient.

In this connection, we also recall the Technical Paper prepared by the Intergovernmental Panel on Climate Change in October 1997 at the request of the Subsidiary Body for Scientific and Technological Advice on the *Implications of Proposed Carbon Dioxide Emissions Limitations*. It is quite clear from the paper and from other studies that action by Annex I Parties alone is, and will continue to be, inadequate to meet the objective of the Convention.

Moreover, we are very aware that the world has changed considerably since Annex I was adopted in 1992.

For this reason, we believe very firmly that the Convention must be dynamic -- that we must find ways to reflect today's realities and the new realities that await us in the future.

And for this reason, we welcome the inclusion on the draft agenda for the Fourth Session of the Conference of the Parties of item 6 on "Voluntary commitments by non-Annex I Parties."

Thank you, Mr. Chairman.

U.S. Delegation
Statement on the
Review Process under Article 4.2(f) of the
U.N. Framework Convention on Climate Change
Subsidiary Body on Implementation
Bonn, June 3, 1998

Thank you, Mr. Chairman. We very much appreciate the statement today from Ambassador Alptuna of Turkey. We very much welcome the constructive role that Turkey has played as an observer for the past several years under the Convention. We welcome too Turkey's offer of cooperation, and we intend to follow-up on that offer.

We look forward to a successful resolution of this issue in Buenos Aires. But we do not believe that it will be possible at this meeting to reach a consensus on the proposal before us.

We believe, Mr. Chairman, that the amendments we have seen thus far to the list in Annex I, the proposal now before us, and the possibility of further proposals in the future all suggest that the review referenced in Article 4.2(f) of the Convention should be a regular agenda item at each session under Article 7.4, and we hope that this would be part of our decision.

US Statement on the Process for Consideration of Initial Communications of Parties not included in Annex I

SBI-6

June 4, 1998

The preparation, communication and consideration of information provided by Parties is the Convention's fundamental mechanism for improving our knowledge of the state of global greenhouse gas emissions and efforts to control them. In this light, we would like to commend Mexico, Korea, Senegal and Micronesia for their recent submissions.

The United States believes that the submission of national communications by non-Annex I Parties must be accelerated. Given the diverse array of technical support provided by various international organizations, bilateral donors and the FCCC Secretariat for the preparation of national communications, it is not clear why Parties are having difficulty submitting their initial communications in a timely manner. We request the Secretariat to consult further with Parties and international organizations on ways and means of expediting the provision of funding and technical support and the submission of national communications from Parties not included in Annex I, and to report on this matter to the 9th session of the SBI.

We also note that establishment of a process for consideration of non-Annex I national communications will provide an important opportunity to identify problems and resource needs for both the preparation of subsequent national communications, as well as climate change response measures. Establishment of an appropriate process to consider communications from Parties not included in Annex I must be a priority for completion at COP4.

In this regard, such a process must provide for both a technical assessment of the information contained in communications for consistency with reporting guidelines, as well as consideration of the general steps taken by Parties to implement the Convention. We believe that regional expert workshops would provide the most appropriate forum for consideration and discussion of national communications for many non-Annex I Parties. However, we also believe that voluntary, in-country visits would provide for more thorough discussion and consideration of specific circumstances of individual countries and should be encouraged.

We look forward to an exchange of views on this issue and hope to reach final agreement at COP4.

Statement of the U.S. Delegation
On Decision 3/CP.3
concerning the Implementation of Article 4.8 and 4.9
of the UN Framework Convention on Climate Change
Subsidiary Body on Implementation
Bonn, June 4, 1998

Thank you, Mr. Chairman.

Let me say first that we understand the concerns that gave rise to decision 3/CP3 and to Article 2.3 and 3.14 of the Kyoto Protocol. We've had an opportunity since Kyoto to discuss these issues with a number of colleagues.

We very much appreciate the ideas of the Secretariat and the obvious energy that has gone into thinking about these issues on the part of many colleagues. Mr. Chairman, we had prepared some remarks on this agenda item for today's discussion but they have largely been mooted by events here this afternoon.

We appreciate very much the effort made by the Secretariat and the output of that effort in CRP.1. At the same time, we received this paper only on our arrival in the hall this afternoon. Like others, we would like to have an opportunity to study the paper and the concepts it introduces, and to offer our comments at an appropriate time. Mr. Chairman, until we have had an opportunity to do so, and particularly I am reminded that the Group of 77 and China has this issue also under consideration, we believe that it would be premature to establish any kind of contact group to take up this matter.

Thank you, Mr. Chairman.

Statement of the U.S. Delegation
on the Participation of Non-Governmental Organizations
Subsidiary Body on Implementation
Bonn, June 5, 1998

Thank you very much, Mr. Chairman. We would endorse your proposal to reach a conclusion on this issue at this session. The United States believes that non-governmental organizations (NGOs) play an important and vital role in the Convention process. In this regard, we are disturbed by the decision to exclude NGOs from the contact group on the flexibility mechanisms. While it is common practice to exclude observers from drafting or negotiating groups, the United States does not believe that our current deliberations are at that stage. It is therefore inappropriate to exclude NGOs from our deliberations.

With regard to the mechanisms for NGO access and input, we would like to restate our views on two specific issues – accreditation criteria and the recognized constituency groups. Given the scope and complexity of an issue like climate change,.the United States believes that it is essential and appropriate to provide for participation by the full spectrum of interests and expertise in the UNFCCC process. The purpose of accreditation criteria for NGOs is not to limit participation to select interests, but rather to ensure that groups and individuals with legitimate interests in any and all aspects of climate change are provided equal access. For this reason, we believe that the current criteria established in Article 6.7 are sufficient and should not be modified.

On a related question, we are noting the interest of a wider range of groups in climate change and the deliberations of the UNFCCC. We are concerned that the three currently recognized constituencies do not fully represent this diverse range of views and should be supplemented. We request the Secretariat to prepare a report assessing options and implications of recognizing additional constituent groups such as labor, agriculture and quasi governmental entities. In conducting this task, we urge the Secretariat to consult widely with non-governmental organizations as well as with other institutions to develop a workable proposal for expanding representation. And Mr. Chairman, lest this proposal be seen as seeking to keep from reaching a decision at this session, let me say that we would like to see that particular aspect continued but we would otherwise like to reach a conclusive decision on this agenda item.

Thank you very much.

Second U.S. Intervention on Flexible Mechanisms

Joint Session of the
Subsidiary Body on Implementation
and the
Subsidiary Body on Scientific and Technological Advice

Ambassador Mark G. Hambley
June 8, 1998
Bonn, Germany

Thank you very much, Mr. Chairman. I would also like to express my appreciation to Yvo de Boer of the Netherlands and Gylvan Meira from Brazil for their work in guiding this process. I would like to make only a few points at this time.

First: We took action in Kyoto, Mr. Chairman, to adopt these flexibility instruments – and we must now find a way to move from paper to action – real, measurable, and verifiable action to use the agreed mechanisms to begin to reduce emissions.

Second: We understand the need for countries to consult on these mechanisms. We hope these discussions have been fruitful, and that we can now move to a constructive dialogue to answer some of the questions posed.

Third: The process initiated by the chairs of SBI and SBSTA could work – and we recommend it be given the chance to do so. Perhaps it would be possible to recommence our conversation later today or tomorrow. This is especially important as we have learned today that the G-77 has a number of questions which it wishes to raise with reference to the mechanism to "help and promote" our process – complex questions we are told by one distinguished delegate – although many will probably be quite easy to answer and we are eager for an opportunity to attempt to do so. Doubtlessly, this list of questions will be a long one, and if we are to begin addressing it in a timely manner, we would be well advised to do so as early this week as possible. Speaking on behalf of my delegation, we look forward to opportunities to answer questions from all Parties, not exclusively those from the G-77/China.

Fourth: I would only offer a brief comment on the contact group's proposed workplan. Perhaps, as suggested by the G-77, the contact group could focus on the substance of our discussion, while the group set to develop the allocation of subsidiary body work could consider the timetable for work products. In this context, our emphasis should be on those areas that were agreed priorities at COP-3: namely, the CDM, (as referenced in decision 1/CP.3), and Emissions Trading, referred to in the same decision.

Finally, we have looked at the paper introduced by the UK on behalf of a group of Parties. From our initial study of its details, perhaps the most salient feature is the broad commonality with the paper submitted by Canada on behalf of another group of Parties, including ourselves, which we of course strongly support. Clearly it indicates the enormous progress already made – and specific areas on which to focus our future work. We look forward to early opportunities to engage in this dialogue and to move rapidly to take the decisions which COP-3 asked us to take at our next session on these issues.

Thank you Mr. Chairman.

US Intervention on Brazilian Protocol Proposal

We would like to thank the government of Brazil for submission of this detailed and provocative analysis. We have read the analysis closely and believe that it presents an interesting framework. However, there are several critical technical issues that may influence our collective consideration of this proposal.

Our first comment is on the framework for analysis. The analysis begins with an estimation of the relative contribution of Annex I and non-Annex I countries to atmospheric CO2 concentrations and temperature increase in 1990. In general, our view is forward looking, not historic. We therefore urge that Brazil undertake additional work to consider a variety of starting conditions and timeframes.

With respect to the scope of the analysis, we note that the proposal only considers emissions of CO2 from energy and cement production. Inclusion of additional greenhouse gases, as well as CO2 from land use change and forestry would significantly alter convergence dates for any potential indicator of convergence.

Our second concern relates to the functional forms of the 'Policy Maker' model, which differ significantly from other reduced form climate models. For example, the linearity of the model in all its stages does not accurately reflect the complex, non-linear relationships between emissions, atmospheric concentrations, radiative forcing and temperature. Since estimation of changes in global mean surface temperature is dependent on calculations of the preceding parameters, the simplified assumptions could significantly distort numerical results.

Of particular concern is the functional relationship between changes in global mean surface temperature and radiative forcing. It is not clear whether the Policy Maker model uses a cumulative integration of radiative forcing or whether it incorporates an appropriate decay factor to account for atmosphere-ocean thermal response. If the analysis relied upon the former approach, the results would greatly overestimate the temperature response to radiative forcing over time.

Finally, we would like to comment on the choice of indicator used in the Brazilian analysis. Several potential indicators could be used, including, annual emissions, contribution to increased atmospheric concentrations, contribution to radiative forcing, and contribution to changes in global mean temperature. While each successive step yields more technical precision in accounting for physical changes in the atmosphere, and, hence, associated impacts, each successive step is also temporally farther removed from the emissions activity causing the atmospheric changes and impacts. This lag time itself commits more emissions to the atmosphere. Further, Brazil's choice of indicator ignores a critical factor: the rate of temperature change. As the IPCC has noted, the *rate* of change in global mean temperature is as significant as the net change.

Based on these technical concerns, we believe the proposal would need to be thoroughly evaluated using more complex models before serious consideration can be given to it. Any further analysis should also include other greenhouse gases, incorporate updated emission scenarios, and consider alternative indicators.

These are our initial comments on the Brazilian proposal. We look forward to hearing other reactions, and hope to have the opportunity to engage in a more detailed discussion at a later date.

Statement of the U.S. Delegation on
Implementation of Article 4.8 and 4.9 (Decision 3/CP.3)
U.N. Framework Convention on Climate Change
Subsidiary Body on Implementation
Bonn, June 8, 1998

Thank you, Mr. Chairman. We wish also to thank the Secretariat for its work on the implementation of Article 4.8 and 4.9 of the Convention, as reflected in paper FCCC/SBI/1998/CRP.1.

We are aware that the issue of adaptation is a major concern of developing countries, both because of their vulnerability and because of their limited resources to respond. Adaptation is also a major concern of developed countries, as may be seen from the increased emphasis being placed on adaptation in the context of global change research programs. Under the leadership of Vice President Gore, we have launched a major national assessment of U.S. vulnerability to climate change and of potential response options. That assessment, which is due to be completed in the year 2000, will provide a comprehensive national evaluation and establish a framework for further national efforts.

Last year, the Intergovernmental Panel on Climate Change (IPCC) produced its first Special Report on the Regional Impacts of Climate Change, drawing significantly on the work of scientists from developing countries. The IPCC has now embarked on its Third Assessment Report, which will devote substantially more effort to regional impacts than has ever been done before. We are proud to support this work, through co-chairing (with Argentina) the IPCC's Working Group II on Impacts and Adaptation, through the participation of U.S. experts in the IPCC assessment process, through our contributions to the UNEP/WMO IPCC Trust Fund that encourages participation in the IPCC of experts from developing countries, and by hosting the Technical Support Unit of the IPCC's Working Group II.

As the result of such increased efforts at the national and international level, we anticipate that the state of knowledge concerning adaptation to climate change will improve dramatically in the years ahead, providing an improved framework for evaluating vulnerability to climate change at the national and regional levels. These improvements in our knowledge base will also better enable us to consider steps that can be taken to minimize adverse impacts as well as to set priorities among them.

Article 4.4 of the Convention commits developed country Parties and other Parties included in Annex II to assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects. In this regard, we are pleased that document CRP.1 in paragraph 32 specifically mentions the U.S. Country Studies Program under which some 55 countries receive assistance, inter alia, for assessing their vulnerability to climate change and evaluating response strategies for adapting to climate change.

Document CRP.1 also details how the Global Environment Facility (GEF) has followed up on the guidance contained in Decision 11/CP.1 regarding policies, program priorities and eligibility criteria with regard to adaptation. Paragraph 31 of that document seeks specifically to identify the funds that have been made available by the GEF in the climate change focal area generally and specifically with respect to activities exclusively concerned with vulnerability and adaptation.

Paragraph 33 of CRP.1 discusses relevant activities carried out by the secretariat and United Nations agencies, in particular training efforts with respect to the impacts of climate change under the CC:TRAIN program, and workshops organized under the CC:FORUM program. These programs are supported by contributions of Annex II Parties to the Trust Fund for Supplementary Activities under the Convention.

With respect to the specific needs and concerns of developing countries arising from the impact of the implementation of response measures, Document CRP.1 discusses the various efforts made to date to consider this issue. In particular, the Secretariat's paper mentions the informal roundtable convened at the fourth session of the Ad Hoc Group on the Berlin Mandate, the Oslo Workshop in August of last year and plans for the forthcoming IPCC Third Assessment Report. We believe that these efforts have been constructive and should be continued.

On the other hand, Document CRP.1 notes that first and second national communications of Annex I Parties and in-depth review reports do not assess whether and how policies and measures already implemented impact on other countries. Document CRP.1 also notes that there is little information and/or few examples of actions undertaken with regard to funding provided in connection with impacts of the implementation of response measures. Neither gap is surprising, since the Convention contains no provision similar to Article 4.4 that would obligate Annex I or Annex II Parties to compensate countries that could be affected by the implementation of response measures. And there is good reason for this. Any such obligation would have meant that Annex II countries would be required to assist not only those who might be affected by their own inaction but also those who might be affected by responsible mitigation efforts. This Catch-22 could create a perverse disincentive to reduce greenhouse gas emissions, with potentially disastrous consequences for the planet.

Instead, Article 4.8 of the Convention requires all Parties – all Parties – to give full consideration to what actions are necessary under the Convention to meet the specific needs and concerns of developing country Parties arising from the implementation of response measures – response measures that may be taken pursuant to Article 4.2(a) and (b) or pursuant to Article 4.1. What flows from this, as far as we are concerned, is the implication that if it is possible for Parties to implement commitments so as to avoid or minimize impacts on developing country Parties, they should consider that course.

Article 2.3 of the Kyoto Protocol, which, unlike Article 4.8 of the Convention, applies only to Annex I Parties, perhaps is relevant to this discussion. Under the Protocol, Annex I Parties are committed to strive to implement policies and measures in such a way as to minimize adverse effects on other Parties, especially developing country Parties.

In the early discussion of Document CRP.1 last week in this hall, some proposed that Annex I Parties be required to submit detailed information on an annual basis concerning the potential impacts of policies and measures they have taken or that they may take. There was also a call for a new subsidiary body to be established to consider these potential impacts. We wonder, however, who is better situated to identify the potential impacts of policies and measures contemplated by Annex I Parties – those who propose to take the action, or those who may be affected by it? Normally, those whose own interests are at stake are the quickest to identify how the actions of others may affect them.

For this reason, if additional information is to be sought from Parties, it should come from those who believe that particular policies and measures will adversely affect them. To our knowledge, no Party has yet brought forward a specific case of a policy or measure adopted or contemplated by any Party in Annex I that would adversely affect the interests of any other Party. For this reason also, it would seem unwarranted, premature, or both to consider establishing a new subsidiary body to take charge of this issue.

Thus, we see the need for a different approach than that contemplated in Document CRP.1 even with respect to tier one of the suggested analytical framework. While identification of the possible adverse effects of climate change is an issue that can be dealt with collectively by all Parties (and that is being dealt with now by the IPCC, among others), the possible impacts of the implementation of response measures is best raised individually, by those Parties who believe that their specific interests may be adversely affected. If such an approach were followed, there would be no need for tier two or tier three of the analysis with respect to the impact of response measures since we would know *ab initio* how these impacts relate to the developing country Party or Parties concerned, and we would have a fairly clear indication of the needs and concerns of that Party or Parties.

For the reasons I have stated previously, tier four – the identification of actions that are necessary to meet the needs and concerns identified – would still be relevant. We would expect that any Party, whose efforts to implement its commitments under Article 4 were alleged adversely to affect a developing country Party or Parties, would consider how to avoid or minimize that impact. But there could be no question of compensation, because there is no obligation under the Convention or the Protocol to compensate.

On the other hand, the analytical framework proposed in CRP.1 would seem more relevant to considering the needs and concerns of developing country Parties arising from the adverse effects of climate change. In this regard, however, we believe that the place to start is with each Party's own assessment of its vulnerability in its initial national

.communication under the Convention. Document CRP.1 notes in paragraph 17 that most of the initial communications received to date from Parties not included in Annex I to the Convention include information on the expected effects of climate change, vulnerability assessment and/or adaptation. We note that one Party also provided a list of adaptation measures that need to be adopted to address impacts, including some related to technology transfer and that several note the need for completing existing studies or carrying out additional studies.

Paragraph 18 of Document CRP.1 notes that concerns have been expressed regarding the inadequacy of existing models for impact assessment and the limited availability of funds for impact and vulnerability assessment. The paper also notes that the need has been expressed for studies to focus more on adaptation, for the development of more detailed and reliable regional scenarios of climate to be used in assessments for the development of additional data for assessments to account better for base-line socio-economic changes and integrated impacts of climate change and for building capacity to carry out vulnerability and adaptation assessments. This body might seek to convey these needs and concerns to the IPCC, although, as noted, the IPCC already seems to be conscious of them and is clearly making efforts to address many of them in its Third Assessment Report.

To date, however, only a few initial communications have been received from developing country Parties, as we heard the other day. This means that our knowledge of the concerns and needs of developing country Parties is partial at best. And as we stated during the discussion of initial communications from Parties not included in Annex I, we are very much interested in the initial communications of non-Annex I Parties that have not yet been received, and we are committed to help determine what further steps the Conference of the Parties may be able to take to expedite the receipt of additional initial communications from non-Annex I Parties.

Mr. Chairman, these represent the initial views of my delegation. We may have additional thoughts as the discussion progresses and after we have had an opportunity to hear the views of others. I thank you.

U.S. Intervention on Education, Training, and Public Outreach

June 10, 1998
Bonn, Germany

Thank you, Mr. Chairman.

Recognizing the importance of this issue, and the fact that until now we have had little discussion on this topic, we have quite a number of points to make on education, training, and public outreach.

Before I begin, I would like to note the extensive and very helpful comments made by Sri Lanka and Kenya on behalf of the Africa Group. We outline a number of similar ideas in our own statement and will take others under advisement.

Global climate change is increasingly an essential part of the context in which social, economic, and technological development takes place, yet many of our citizens are unaware of the phenomena of climate change and its impacts. Societal decision making needs to be based on an informed understanding of the factors driving global climate change, how these changes may manifest themselves, and how society can most effectively adapt to or limit future changes. The United States believes that education, training, and public outreach are some of the most fundamental elements of the UNFCCC. For without these, it will not be possible to convince the public of the importance of the need to address climate change.

Education

Society has a significant stake in the education and development of talented researchers who can question, analyze, and report results of investigations that enhance understanding of the natural and human dimensions of global climate change. Within the FCCC process, CC:INFO combines both education and public awareness components in an online computer setting. In addition, the Information Unit on Climate Change (IUCC), with the support of the Secretariat, disseminates information on a regular basis, providing reports of programs to interested parties. We also had extensive discussions recently on various technology information systems which provide critical information on technology issues.

Many countries – including the United States – have noted the availability of extensive, detailed information regarding domestic activities on their websites. We encourage this, as overall transparency and public awareness is increased by these efforts. We also note that it may be helpful to all if countries could indicate what information related to climate change is available on their government websites. For example, the Second U.S. National Communication is available on the website of the U.S. Department of State. This site is just one of many U.S. government and international Internet sites that contain publicly available information on climate change.

The U.S. National Assessment of Climate Change Impacts is an ongoing activity intended to address the regional implications of climate change and to better understand its potential impacts as the level of greenhouse gases already in the atmosphere continues to rise. The program, currently well underway, will ultimately hold 18 regional workshops around the United States and develop 8 sectoral assessments. Updates about the U.S. National Assessment are available to the public on the Internet site of the U.S. Global Change Research Program.

The U.S. Environmental Protection Agency has sponsored a series of regional workshops across the United States to provide the opportunity to have a dialogue with the public about the impacts of climate change on specific communities, states, and regions.

It is also critical that we continue to engage our non-governmental communities in this effort. They help inform the process – supporting our efforts to broadly inform individual citizens in each of our countries on the importance of action, on our international progress (including this process), and at the national level. We welcome their continued participation.

Thank you, Mr. Chairman.

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Divider Title: **G**

ADMINISTRATION ECONOMIC ANALYSIS: MEETING THE CHALLENGE OF CLIMATE CHANGE AT A REASONABLE COST

July 31, 1998

The Administration's economic analysis of the Kyoto Protocol concludes that the costs of meeting our Kyoto target for reducing greenhouse gases should be modest; that taking action to address global warming amounts to an insurance policy against a serious threat; that there are significant opportunities for lost cost reductions both at home and abroad; and that the benefits of averting climate change could be very large.

There is a powerful scientific rationale for taking action on global warming; taking action amounts to an insurance policy against a serious risk. Greenhouse gases are rapidly building up in the atmosphere and at current rates will reach levels not seen in 50 million years by 2100. The nine hottest years on record have occurred since 1987, 1997 was the hottest year ever, and 1998 has been hotter still. Our leading scientists warn of serious consequences, like severe droughts and floods and health problems, if global warming is ignored. In 1992, the National Academy of Sciences said: "...even given the considerable uncertainties in our knowledge of the relevant phenomena, greenhouse warming poses a potential threat sufficient to merit prompt responses....Investment in mitigation measures acts as insurance protection against the great uncertainties and the possibility of dramatic surprises."

The costs of meeting our Kyoto target should be modest. Even without counting the impact of domestic policies or the benefits of acting to mitigate climate change, estimates derived using the Second Generation Model (SGM) suggest an emissions price in the range of $14 to $23 per ton of greenhouse gases. In 2010, that would translate into an increase of $70-$110 per year for an average family's energy bill, although such increase would be substantially offset by the decline in electricity prices resulting from restructuring the electricity industry, as the Administration and others have proposed.

Domestic actions -- which are not factored into the SGM model -- can further reduce costs and substantially increase the amount of reductions made at home. These include federal electricity restructuring; efforts to increase the rate of technology improvement, such as the President's $6.3 billion budget package; activities, like forestry activities, which can sequester carbon; industry consultations; and initiatives to reform federal energy use and procurement.

Doing it smart: The Kyoto Protocol is based upon flexibility measures that reduce costs. At U.S. insistence, the Kyoto Protocol allows emissions to be reduced where and when such reductions are cheapest. Key provisions include international trading of emissions permits as well as measures that allow our companies to share credit for emissions reducing projects abroad.

The benefits of acting to address climate change could be very large. Noted economists have estimated the environmental, health, and economic costs of global warming projected to occur during the next century to be 1% of GDP or more -- over $80 billion a year in today's terms. In the short term, ancillary benefits of reducing greenhouse gas emissions -- such as reduced air pollution -- could produce savings equal to one quarter of the costs of meeting our Kyoto target.

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Divider Title: **H**

Meeting Report
SBSTA 3.3 Workshop, Rome
September 24 - 25, 1998

Summary:

Parties were briefed on the status of the IPCC Special Report on Land Use Change and Forestry (LUCF). Parties provided comments on the IPCC outline, which are being taken into account by the IPCC in preparation of a draft outline for presentation at the IPCC Plenary meeting this week in Vienna, Austria. Several presentations were made by technical experts from the FAO and UN on the gathering and use of LUCF data in ongoing international assessments, and an overview of different definitions of afforestation, reforestation, and deforestation was provided. Finally, the Parties presented descriptions of their data, methodologies, and issues related to interpreting and operationalizing LUCF in the context of Article 3.3 of the Kyoto Protocol.

Highlights:

- There was general consensus that the IPCC should focus on providing information to assists Parties with operationalizing the Kyoto Protocol LUCF language.

- Participants agreed that a range of definitions should be examined by the IPCC in the Special Report, and that each should be evaluated against a common set of criteria. Australia implied strongly that they would adopt the definitions best suited to their national circumstances, and New Zealand explicitly stated that they would do so. Italy stated that agreement on definitions was less important than determination of verifiable measurements.

- Finland, Norway, New Zealand, and Sweden specifically described how use of IPCC and FAO definitions would affect their numbers. Use of IPCC definitions resulted in LUCF becoming a source rather than a sink for these countries, while use of FAO definitions was more beneficial.

- The US raised concerns about the initial version of the outline, which contained references to project-level liability issues in the context of Kyoto Protocol Articles 6 and 12, noting that it was not appropriate for the IPCC to examine policy issues that must be decided by the parties. In description of the revised outline, the IPCC Chairman explicitly stated that policy issue such as liability would not be included.

- The US also made an intervention on the subject of a workshop focused on additional activities under Article 3.4, stating that the value of such a workshop was clear and offering to host the event in February. The US offer was noted, no objections were raised, and the SBSTA chair suggested that this could be approved at the next SBSTA meeting. We also suggested that Parties use their October 1 submissions to suggest additional activities that could then be used to provide further guidance to the IPCC on the Special Report. Again, no objections were raised.

*Text of US intervention attached.

US Intervention on the Outline of the IPCC LUCF Special Report

The IPCC Special Report on land use, land use change and forestry and carbon emissions, should be focused on providing the information that governments can use to operationalize the LUCF Articles in the Kyoto Protocol. Emphasis should be placed on data and methods available or needed, as well as the implications of differing LUCF definitions.

We believe the broad scope and the proposed length of the report to be appropriate and we emphasize that the schedule outlined by the IPCC needs to be adhered to in order to provide input to the parties in a timely fashion.

The US would also like to emphasize the need for balance in the coverage of material in the Special Report. Depth and detail in chapters 3, 4, and 5 needs to be comparable and balanced.

The U.S. recommends that Chapter II, Global Aspects, provide, at most, an overview of global carbon cycle issues.

The U.S. urges the IPCC to use a systematic approach to reviewing the LUCF definitions, as well as focus on operationalizing the definitions. We note that there is some ambiguity in the existing IPCC definitions. Therefore, it is important that the Special Report examine a representative range of definitions and that each alternative definition should have equal weight in the analysis.

The analysis of Article 3.4 issues is an important step towards comprehensive accounting. The SBSTA submissions in October should provide input on the additional activities that could be included in 3.4, and should be considered by the IPCC in the preparation of the special report.

Regarding the outline for Chapter 6, the IPCC should focus on technical issues related to project-based accounting in the land use change and forestry sectors. This chapter and the Special report should not address policy issues related to flexibility mechanisms, such as liability.

The US considers chapter 7 on reporting guidelines to be the fundamental operational section of the Special Report. This chapter should draw on the discussions and analysis from the previous chapters to provide guidance to the parties about how to operationalize the LUCF activities.

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Divider Title: I

TESTIMONY OF DR. JANET YELLEN
CHAIR, COUNCIL OF ECONOMIC ADVISERS
BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMERCE SUBCOMMITTEE ON ENERGY AND POWER

TUESDAY OCTOBER 6, 1998

Thank you, Mr. Chairman. I appreciate having this opportunity to discuss with you the economics of climate change and the Administration's efforts to address this significant environmental challenge. As you know, I have testified on this topic before this Committee on two prior occasions. In my first appearance, prior to the Kyoto negotiations, I emphasized that if flexible, market-based mechanisms are effectively used, the costs of cutting greenhouse gas emissions would be significantly reduced. Elaborating on this point, I stated in March of this year that, in the Administration's view, the costs of achieving our Kyoto target would be modest if we can succeed in implementing international trading, joint implementation, and the Clean Development Mechanism in an efficient manner and we achieve meaningful developing country participation. A report released by the Administration in July, entitled "The Kyoto Protocol and the President's Policies to Address Climate Change: Administration Economic Analysis" elaborates the assumptions and analysis underlying this conclusion. In addition, the Stanford Energy Modeling Forum has been coordinating an economic modeling exercise of the Kyoto agreement, and the participating modelers, who include academic, private sector and government analysts, have made available some of their preliminary results. Today, I will provide a brief summary of the Administration's Economic Analysis and review several of the key findings of the Energy Modeling Forum effort.

The Potential Impact of Climate Change

The Intergovernmental Panel on Climate Change (IPCC) concluded in 1995 that "the balance of evidence suggests that there is a discernible human influence on global climate." Current concentrations of greenhouse gases have reached levels well above those of preindustrial times. If growth in global emissions continues unabated, the atmospheric concentration of carbon dioxide (CO_2) will likely double relative to its preindustrial level by midway through the next century and continue to rise thereafter. As a result of the increased concentration of CO_2, the IPCC estimates that global temperatures will increase by between 2 to 6 degrees Fahrenheit in the next 100 years, with a best guess of about 3.5 degrees Fahrenheit. Potential consequences associated with this shift in climate include a rise in sea levels, greater frequency of severe weather events, shifts in agricultural growing conditions from changing weather patterns, threats to human health from increased range and incidence of diseases, changes in availability of freshwater supplies, and damage to ecosystems and biodiversity. Further discussion of the costs of climate change is contained in the Administration Economic Analysis.[1]

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[1] Please refer to the attached paper copy or http://www.whitehouse.gov/WH/New/html/kyoto.pdf

The Kyoto Protocol and the Buenos Aires Conference of the Parties

Previously, Undersecretary Eizenstat and I appeared before this Committee to discuss the Kyoto Protocol and the Administration's efforts to address the risks of climate change. In my testimony, I described the many important flexibility mechanisms in the Kyoto Protocol and explained how they would allow countries to achieve cost-effectively the emissions targets established in this agreement. These mechanisms, which permit what we have termed "when", "what", and "where" flexibility in meeting the Kyoto emissions targets, are described in detail in the Administration Economic Analysis. Since securing international emissions trading, the Clean Development Mechanism, and joint implementation last year in Kyoto, the Administration has worked in bilateral and multilateral arenas to promote understanding of these mechanisms and to develop rules that will promote their efficient operation. This work will continue in the talks in Buenos Aires and beyond. While I will defer to the Department of State for a discussion of the upcoming international negotiations, I will reiterate that efficient implementation of these flexibility mechanisms is critical to reducing the costs of achieving the targets established in the Kyoto Protocol.

Costs of Action

In assessing the economic effects of the Kyoto Protocol, the Administration has drawn on the insights of a wide range of models and analysis. Examples include models of the energy sector and economy over the next 25 years, such as the Stanford Energy Modeling Forum, the Intergovernmental Panel on Climate Change's review of the economic and social dimensions of climate change, the work of the Organization for Economic Co-operation and Development (OECD) on the economic dimensions and policy responses to global warming, and the Administration's staff-level interagency analysis. In addition, the Administration used other tools, such as a meta-analysis, basic economic reasoning, overviews of the domestic and international energy sectors, statistics regarding energy efficiency and greenhouse gas emissions, and economic indicators from World Bank, International Energy Agency, and Energy Information Administration databases.

Assuming that effective mechanisms for international trading, joint implementation, and the Clean Development Mechanism are established, and assuming also that the United States achieves meaningful participation of key developing countries, the Administration's overall assessment is that the economic cost of attaining the targets and timetables specified in the Kyoto Protocol will be modest for the United States in aggregate and for typical households. This conclusion is not entirely dependent upon, but is fully consistent with, formal model results. The Administration continues to believe that there are limitations to relying on any single model to assess the economic impact of the Kyoto Protocol. However, model results can further inform

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for a PDF version of this document.

and improve the understanding of the effects of climate change policy. To complement the economic analysis of the Administration's policy to address climate change, we have conducted an illustrative assessment with a modified version of the Second Generation Model (SGM). The results from the SGM substantiate the conclusion that the economic effects of an efficient, effective, and global policy to address the risks of climate change will be modest.

An assessment using the SGM model that accounts for effective trading and developing country participation yields permit price estimates ranging between \$14/ton and \$23/ton, and direct resource costs to the U.S. between \$7 billion and \$12 billion/year. The range reflects uncertainty about the extent of Annex I participation in international trading.

Under the assumptions of the Administration's analysis, permit prices in the range of \$14/ton to \$23/ton translate into energy price increases at the household level between 3 and 5%. Under these permit prices, fuel oil prices would increase about 5 to 9 percent, natural gas prices about 3 to 5 percent, gasoline prices about 3 to 4 percent (or around 4 to 6 cents per gallon), and electricity prices about 3 to 4 percent. This increase in energy prices at the household level would raise the average household's energy bill in ten years by between \$70 and \$110 per year, although such predictions may not be observable because they would be small relative to typical energy price changes, and nearly fully offset by electricity price declines from Federal electricity restructuring. By 2008-2012, the anticipated 10 percent decline in electricity prices from restructuring is projected to lead to expenditure reductions of about \$90 per year for the average household.

The illustrative modeling analysis does not account for several key components of the Kyoto Protocol and the Administration's policies to reduce greenhouse gas emissions. These include the benefits of reducing net emissions through carbon sinks, the Administration's electricity restructuring proposal, the Administration's Climate Change Technology Initiative (R&D funding and tax incentives in the FY 1999 Budget), the Administration's sectoral consultations to encourage and support voluntary efforts by U.S. industry to undertake emissions reductions, including the provision of credit for early action, and the Administration's efforts to reduce federal energy use. There are also ancillary benefits of reducing greenhouse gas emissions -- in particular, the corresponding reductions in conventional air pollutants like sulfur dioxide and fine particulate matter. These benefits alone could produce savings equal to about a quarter of the costs of meeting our Kyoto target.

Since I last testified before this Committee, the Administration has released its proposed electricity restructuring legislation and the supporting analysis of this proposal. The Administration's proposed Comprehensive Electricity Competition Act (CECA) is estimated to reduce greenhouse gas emissions by about 25 to 40 million metric tons of carbon equivalent per year by 2010. Further, the electricity restructuring proposal provides potential cost-savings in four areas: dispatch efficiency, improved capital utilization, savings in capital additions and cost reductions in fuel procurement, non-fuel operation and maintenance expenses, and administrative and general expenses. These four categories of savings are likely to reach or exceed \$20 billion annually. The Department of Energy's CECA supporting analysis documents[2] contain further discussion of the Administration's electricity restructuring proposal.

Recent Research on the Economics of Climate Change

Since I last appeared before this Committee, many economists have conducted and made available their analyses of the Kyoto Protocol. I noted in both of my previous appearances that there are limitations to relying on one or a small set of models and that we were eager to see assessments of the Kyoto Protocol by other models. In March, I indicated that the Energy Modeling Forum (EMF) based at Stanford University, a long-running model comparison exercise involving many of the leading climate and energy models, would conduct full scale analyses of the Kyoto Protocol. We have now received a compilation of the preliminary analyses by the participating modeling teams.

EMF Kyoto Analyses

The Energy Modeling Forum comparison exercise of the Kyoto Protocol has included ten modeling teams from the United States, Europe, and Asia. In evaluating the Kyoto Protocol, all of the participating teams used economic models that incorporate the potential for international trading in greenhouse gas permits. By explicitly incorporating international trading, these models can evaluate the opportunities for cost-savings through trading among Annex I nations and among Annex I and developing countries were they to adopt emissions targets. Since the Kyoto Protocol enables all countries with emissions targets to trade emissions allowances among other countries with targets, these models are well-suited to assess the economic implications of the international trading component of the agreement.

While the EMF models can assess international trading, there are several other flexibility mechanisms of the Kyoto Protocol that they cannot, at present, readily assess. For example, these models did not incorporate the effects of sinks. While several modelers did assess the economic costs of achieving the Kyoto targets with "off-line" assumptions about sink activity, none incorporated an integrated energy-land use model. Further, most of the modelers did not evaluate opportunities to reduce costs by trading across greenhouse gases. These models are primarily energy models and are focused on the economics of reducing carbon emissions from fossil fuel combustion. Again, some modelers analyzed the Protocol by making some "off-line" assumptions about the potential reductions in non-carbon dioxide greenhouse gases, but none employed a model with cost curves for these gases. Finally, it should be noted that these models did not include opportunities for emissions reduction through Administration proposals, such as electricity restructuring or the Climate Change Technology Initiative, that could lower greenhouse gas permit prices.

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[2] Please refer to the attached paper copy or http://www.doe.gov/ceca/ceca.htm for the PDF version of the supporting analysis.

The EMF results provide very useful context for the Administration's economic analysis. First, the illustrative model used by the Administration, the Second Generation Model of the Pacific Northwest National Laboratory, tends to fall in the middle of the range of this set of models in terms of U.S. permit prices.[3] For example, under Annex I trading SGM generates a permit price which is at the median of this set of models. Under full global trading, the SGM permit price is just below the median permit price. Second, the EMF exercise found that the reduction in permit prices as trading expands from no trading to Annex I trading to full global trading is robust. On average, the EMF models found that Annex I trading would cut the U.S. permit price by 53% relative to a no trading scenario. Of these models, one estimated a 72% reduction in the permit price under Annex I trading. In full global trading, the permit price would be, on average, 80% lower than the no trading price. Several models estimated permit price reductions of about 90%.

Analyses of Trading Constraints

In addition to the modeling of various efficient international trading scenarios, several EMF modeling teams have considered the impact of constraints on the opportunity to buy or sell emissions allowances in an international market. While the United States is unambiguously opposed to trading restrictions, several parties to the agreement have indicated support for some form of a trading constraint, for example, by setting a limit on the amount a party can purchase through the trading system. Trading restrictions would generate no benefit for the global climate while they could significantly increase the costs of achieving the Kyoto targets.

Before describing the economic costs of trading constraints, I would like to explain why such constraints yield no climate benefits. Regardless of where an emission reduction occurs, it has the same effect on total emissions and the same effect on the climate. A ton reduced in New York generates the same climate benefit as a ton reduced in Berlin. In proposing trading constraints, some have focused on countries such as Russia, that will have emissions below their Kyoto targets during the commitment period because of the decline in their economic output associated with the transition to market economies. If trading constraints are established that restrict the ability of Russia to sell permits (or restrict the opportunity for other Annex I countries to buy Russian permits), then emissions during the first commitment period would be lower than in the absence of such constraints. However, Russia would simply bank its allowances and use these allowances in a subsequent commitment period when its emissions exceed its target. While a trading constraint might lower emissions during the first commitment period, the cumulative

[3] Please note that the version of SGM used in EMF differs from the analysis conducted by the Administration because the EMF version does not include cost curves for non-carbon dioxide greenhouse gases used by the Administration. Since efficient trading across gases would lower costs and permit prices, the EMF version of SGM yields slightly higher permit prices than the Administration version.

emissions over several commitment periods from Annex I countries would be the same with and without the trading constraint. Given the long residence times of greenhouse gases (on the order of a 100 or more years), the cumulative effect is what is most relevant in terms of changes in the global climate.

To provide a sense of the economic implications of trading constraints, I would like to share with you two examples from work done by EMF modeling teams. First, consider a trading constraint that mandates that at least two-thirds of the emissions reductions necessary for a country to achieve its Kyoto target must occur through domestic actions. Evaluating this trading constraint with the EPPA model based at the Massachusetts Institute of Technology, the permit price for the United States is almost four times higher with the constraint than under an unconstrained global trading system. It is important to note that the effects of this constraint are even more pronounced for the European Union and for Japan. The permit price for the EU would be more than five times higher than the unconstrained global trading permit price, and the Japanese permit price would be thirteen times higher. As these results indicate, the trading constraint would result in each country experiencing a different marginal cost of abatement, and there would be no common permit price for a ton of carbon equivalent. Since the constraint restricts opportunities for countries like the United States, Japan, and members of the EU to buy emissions allowances, the competitive price for emission allowances from countries like Russia would fall below the unconstrained level.

Second, consider a trading constraint that mandates that acquisitions of permits through international trading could not exceed 10% of a country's emissions allocation. For example, the U.S. target is approximately 1.5 billion tons of carbon equivalent on an annualized basis. Under this trading constraint, the United States, or private firms in the United States, could not purchase more than 150 million tons on an annual basis from other countries. Assessing this trading constraint with the Second Generation Model based at the Pacific Northwest National Laboratory, the permit price for the United States would more than triple relative to the unconstrained global trading permit price. For the EU, the permit price would nearly double, and for Japan, the permit price would be eleven times as high as the unconstrained global price.

While trading constraints increase greenhouse gas permit prices (and subsequently, energy prices) in the United States, the European Union, and Japan, they also reduce the gains from trade by the countries likely to be sellers of emissions allowances. For example, Russia and large developing countries that adopt emissions growth targets and participate in international trading, e.g., China and India, would sell fewer emissions allowances at lower international permit prices under such trading constraints than in an unconstrained global trading environment. Such restrictions lessen the benefits of participation by developing countries in international trading.

Developing Country Participation

While no non-Annex I country has yet adopted a binding emissions target, economic and environmental benefits would accrue if some developing countries do so. Setting a target below the business as usual emissions level for the commitment period would generate climate benefits by reducing global emissions below what they would otherwise have been. In addition, if the target is set not too far below the business as usual emissions level, the participation of the country in a global trading system would produce economic benefits or "gains from trade" for both the developing country and its trading partners. Emissions trading by developing countries would occur only if they chose to undertake emissions reductions above and beyond their commitments -- reductions that would generate trading extra income for them as long as their marginal abatement cost is below the world trading price for greenhouse gas permits. Many of the EMF models reveal that, for large developing countries, like China, such excess reductions would indeed be profitable, so that these countries would export allowances and gain from trade. Developing countries would also reap ancillary benefits of reducing conventional air pollutants, which may be substantial. Benefits from trading would also accrue to Annex I countries. Annex I countries (and private firms in these countries), who would purchase these emissions allowances in the world market, would achieve their targets at lower cost than without the participation of the developing countries. However, it should be noted that the more stringent the target for the developing country, the lower the gains from trade both for that country and for Annex I countries such as the United States. Indeed, an extremely stringent target could conceivably make the developing country a net importer of emissions allowances, and raise the international trading price for a greenhouse gas permit. Still, these models illustrate the potential to create targets that simultaneously make the environment, the developing country, and Annex I countries all better off.

Conclusion

The Administration's overall conclusion is that the economic impact of the Protocol will be modest under the conditions we have identified in our economic analysis. The purpose of this testimony has been to summarize the analysis we have presented in the Administration Economic Analysis on climate change and to provide a brief update of recent modeling efforts outside of the government.

I look forward to continuing to work with members of this Committee, as well as with other interested parties, in further analyzing the Kyoto Protocol and evaluating the net effects of reducing greenhouse gas emissions. It is my hope that economic analysis will continue to play a key role in designing policies in this area.

I welcome your questions.

Divider Title: **J**

TESTIMONY OF ACTING ASSISTANT SECRETARY OF STATE FOR OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS
MELINDA L. KIMBLE
BEFORE THE SUBCOMMITTEE ON ENERGY AND POWER
HOUSE COMMITTEE ON COMMERCE
October 6, 1998

Introduction

Thank you, Mr. Chairman and Members of the Subcommittee.

I am pleased to be with you today to discuss the current status of negotiations leading to the next meeting of the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) to be held in Buenos Aires, Argentina this November. I will also highlight our ongoing, intensive diplomatic efforts in this regard. Almost one year ago, the world community took an historic step forward in its efforts to address climate change in adopting the Kyoto Protocol to the UNFCCC. I will not go into detail regarding its many substantial elements with which I'm sure you are familiar -- five-year commitment periods, the flexibility mechanisms (i.e., emissions trading, joint implementation and the Clean Development Mechanism), and inclusion of all six major greenhouse gases and sinks. Suffice to say that we believe the Protocol represents an important milestone on the path toward putting in place a credible global response to this significant environmental problem.

That said, the Protocol is a "work in progress." We still need to elaborate the Protocol's provisions for flexibility mechanisms to assure that they are cost-effective tools and are not unduly burdened with bureaucratic structure or artificial constraints, and we continue to pursue securing meaningful participation by key developing countries. The Clean Development Mechanism (CDM) will likely be pivotal to encouraging developing countries to engage in the global response to climate change. The CDM will do so by example and incentive -- by showing how actions to limit, reduce or sequester greenhouse gas emissions also bring significant benefits in promoting technology transfer, increasing the availability of financial resources and promoting sustainable development. Moreover, there is much we can do bilaterally to build capacity in developing countries to address this challenge.

We recognize that we have not yet achieved the meaningful participation by key developing countries to which the President is committed. I would like to reiterate our intention to obtain such participation prior to submitting this agreement to the Senate for its advice and consent.

U.S. Commitments under the UN Framework Convention on Climate Change

As we look to Buenos Aires, our goal is to make progress on our climate change agenda. We must not lose sight of the instrument that is in force -- the 1992 UN Framework Convention on Climate Change (UNFCCC). There are commitments under this treaty that will be reviewed in Buenos Aires and subsequent Conferences of the Parties to the UNFCCC – and the more we progress on meeting these commitments, the better prepared Parties will be to address the goals of the Kyoto Protocol when it is complete and in force. Since 1992, when the United States was the fourth nation in the world and the first developed nation to ratify, 175 countries have become Parties to this Convention to combat global warming.

From the beginning, the United States spearheaded the international effort to address climate change. Ten years ago, the Reagan Administration supported the establishment of the Intergovernmental Panel on Climate Change (IPCC), which just held its fourteenth meeting and launched its Third Assessment Report on climate change. The initial work of the IPCC prompted the Bush Administration to join the international call to establish a negotiating body to deal with this issue. In 1991, the U.S. hosted the first meeting of the Intergovernmental Negotiating Committee (INC), whose hard work culminated in the adoption of the Convention in May 1992. The INC met six times over two years to craft an historic agreement. President Bush signed the Convention at Rio in June 1992 and promptly submitted it for the Senate's advice and consent. Later that year, in bipartisan fashion, the Senate gave its support to the treaty without opposition. The Convention entered into force in March 1994.

Let me briefly review the commitments that the United States undertook in becoming a Party to the Convention. The ultimate objective of the UNFCCC is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous, human interference with the climate system. To this end, the UNFCCC established implementation and technical bodies, set forth binding commitments for all Parties, and called for periodic review and updating of obligations. All Parties, including developing countries, are obligated, among other things, to:

- Prepare national inventories of greenhouse gas (GHG) sources and sinks;
- Formulate and implement national programs containing measures to mitigate climate change;
- Report information related to the implementation of obligations; and
- Promote and cooperate in education, training and public awareness related to climate change.

Furthermore, Parties listed in Annex I, including the United States, agreed to:

- A continuing obligation to adopt policies and measures and take corresponding measures to address climate change through both limitation of emissions and enhancement of sinks;
- Enhanced reporting obligations; and
- A non-binding "aim" of returning their net GHG emissions to 1990 levels by the year 2000.

U.S. Fulfillment of its UNFCCC Obligations and Aim: Climate Change Action Plan and October 1997 Initiative

All of our existing and proposed domestic climate change initiatives further the fulfillment of U.S. obligations under the Climate Convention to adopt policies and take corresponding measures to limit greenhouse gas emissions. These are in no way an attempt to implement the Kyoto Protocol before it is ratified. Rather, these actions are consistent with our existing treaty obligations. The United States is, thus, taking steps to implement existing commitments while it continues to complete work on the Protocol. Because the United States is the biggest emitter in the world, the level of our commitment to address climate change sends a clear signal to all nations. To the extent that the United States can demonstrate continued leadership through serious domestic action, the U.S. position is strengthened in the international negotiations. Without such dedication, it would be difficult to sustain U.S. leadership on the climate change issue.

Climate Change Action Plan

The Climate Change Action Plan (the Action Plan), announced by President Clinton and Vice President Gore in October 1993, is designed to promote environmentally sound economic growth in the United States into the next century – and help mitigate the threat of climate change. The Action Plan is also designed to generate sustainable emission reductions that increase over time, providing larger benefits in later years.
The Action Plan consists of over 40 programs that combine efforts of the public sector (federal, State, and local governments) and the private sector through a number of different approaches. These programs reduce emissions while stimulating greater energy efficiency, and commercializing renewable energy technologies. Through the Action Plan programs, the United States is:

- **Preserving the Environment** -- The Action Plan comprehensively addresses all major greenhouse gases in all sectors of the economy. It provides additional environmental co-benefits, including preventing ozone and particulate air pollution and reducing solid and hazardous wastes.

- **Contributing to Economic Growth** -- The Action Plan contributes to improving productivity and economic growth, and generates employment opportunities by promoting the use of advanced technologies and eliminating unnecessary energy expenditures.

- **Building Partnerships** -- The Action Plan relies largely on successful voluntary approaches to engage U.S. businesses in achieving greenhouse gas reductions.

- **Involving the Public** -- Federal agencies solicited outside views when developing the Action Plan and this evaluation -- and the public contributes continually to the development and improvement of Action Plan programs.

- **Encouraging International Emission Reductions** -- Recognizing the significant potential for cost-effective emission reductions in other countries, the Action Plan established the U.S. Initiative for Joint Implementation and the U.S. Country Studies Program. Many of the Action Plan programs are assisting other countries in achieving cost-effective emission reductions.

Many Action Plan programs have been highly successful. The Action Plan has over 5,000 organizations participating from around the country. As recognized in the Action Plan, it will take most of the programs three to five years to begin to achieve substantial carbon reduction benefits based on the strong foundations and partnerships that have been built. Here are some of its many successes:

- Thousands of efficient ENERGY STAR-labeled products are widely available;
- Over 2,300 partners in the ENERGY STAR Buildings and Green Lights programs have invested over $1 billion in energy-efficient improvements, saving over $250 million on their energy bills in 1996 alone.
- Rebuild America is reducing the $6.5 billion energy bill at colleges and universities across the country.
- USDA programs have led to the planting of trees on 54,000 hectares of land.
- In 1996, partners in EPA's Natural Gas STAR program reduced methane leakage from natural gas pipelines by over 1.0 million metric tons of carbon equivalent.

October 1997 Initiative

In October 1997, well before Kyoto, President Clinton outlined an environmentally and economically sound plan for reducing U.S. greenhouse gas emissions, which is fully consistent with U.S. obligations under the UNFCCC and designed to meet the voluntary "aim" and other ongoing commitments. The plan encompasses ground-breaking initiatives designed to cut emissions by increasing energy efficiency; developing and encouraging diffusion of new, cleaner energy technologies; working with industry and others to promote sensible solutions to the climate change problem; and employing market-based mechanisms to ensure cost-effective reductions. By promoting technology development and diffusion now, we will be increasing our competitiveness and we will be making a down payment that can help us avoid potentially costly actions in the future. Specifically, the President's plan includes the Climate Change Technology Initiative – an ambitious program of tax cuts and funding for research and development aimed at improving energy efficiency and spurring the use of renewable energy sources. Included in the President's FY 1999 Budget, the package amounts to $6.3 billion over five years, $3.6 billion in tax cuts and $2.7 billion in new investment. Electricity restructuring and efforts to improve energy use and procurement practices by the Federal government will also help reduce emissions. On a longer time horizon, a domestic emissions trading system will be developed and in place by 2008.

An important component involves building partnerships with key energy-intensive industries to develop sector-by-sector initiatives to cut emissions. These partnerships will identify opportunities for working together to remove barriers to the development and widespread use of energy efficient technologies and practices. One example is the Partnership for Advancing Technology in Housing (PATH) which will also play an important role in achieving the goals of the President's plan. As part of its consultations, the Administration will discuss ways to ensure credit for businesses that act early. High level Administration officials have already met with CEOs from the steel, aluminum, cement, publicly owned and investor-owned electric utilities, forest products and gas pipelines industries.

Expectations for Buenos Aires

In the context of six years since the Framework Convention on Climate Change was opened for signature and the recently negotiated Kyoto Protocol, the fourth meeting of the Conference of the Parties to the UNFCCC (COP-4) provides an opportunity to continue momentum on both of these historic agreements. Breakthrough accomplishments and headline-making events, however, are not likely, given the early stage of international understanding of how the flexibility mechanisms in the Protocol can work. We are focused on achieving "maximum progress" as we seek to advance the ultimate objective of the Convention and to elaborate upon the unfinished business of Kyoto.

We believe all countries, both developed and developing, should reiterate the need for concerted, cooperative action to address this global problem. We intend to renew our commitment to taking actions in the context of the Framework Convention, which recognizes the need for a global effort. And, we hope others will do the same.

The problem of climate change emerged over decades and solving it is a "marathon" not a "sprint." We view COP-4 as a stepping stone to future efforts on climate change, and as such, it must yield incremental, but credible progress.

Flexibility Mechanisms

Our assessment three weeks before the international community convenes in Buenos Aires is that there is a solid basis for making progress on elaborating the Kyoto Protocol's flexibility mechanisms – emissions trading, joint implementation, and the Clean Development Mechanism (CDM). Securing agreement on rules and guidelines is essential to protect U.S. interests and achieve the objectives of Kyoto. The U.S. was able to agree to the Protocol, in large part, because these mechanisms were included. Moving "the ball forward" at Buenos Aires on verification, measurement and reporting rules and guidelines would be a welcome development. Our goal is to engage in frank discussions on the areas of shared interest, to develop a consensus on next steps, and to avoid unproductive arguments on issues than cannot be resolved at COP-4.

Essentially, there is agreement on the need to strike a balance between ensuring the integrity of the international emissions trading system through strong rules, and maximizing its ability to generate emissions reductions worldwide by making it simple, credible and transparent. Trading is a complex issue and countries have different views on precisely how it should work. We are working with other nations to improve decision makers' understanding of the mechanics as well as their comprehension of our positions. Above all, we need to ensure that emissions trading, as well as the other flexibility mechanisms, are cost-effective and environmentally sound. Progress on this front with the European Union at the recent informal Ministerial in Tokyo seems to have reduced the likelihood that this issue of the flexibility mechanisms will be divisive at COP-4.

The Clean Development Mechanism, or CDM, shows real promise as a bridge between the developed and developing countries in their efforts to address the global problem of climate change. As with the other mechanisms, familiarity with the fundamentals of the CDM is moving us closer to agreement on next steps. More Parties accept that the projects to be covered by the CDM can create emissions reductions that translate into global environmental benefits, ensuring that investments in developing countries further sustainable development, while helping developed countries meet their Kyoto goals, cost-effectively, through applying project-generated credits against their targets.

One positive outcome of COP-4 would be a work plan and timetable for further elaboration of the rules, modalities and guidelines for all of the flexibility mechanisms. Such a plan would signal that we are moving forward, and that we understand the need for greater certainty among our public and private sectors about how the Kyoto mechanisms and processes will work. We have been engaging in efforts to seek input from financial experts and U.S. industry on aspects of emissions trading and other market mechanisms to inform our policy formation on such issues as allocation of risk and institutional structures, and we will continue to do so as these issues will need further refinement after Buenos Aires.

COP-4 offers an opportunity to share perspectives on how to proceed and build consensus on concrete steps that can be taken to reduce the growth in greenhouse gas emissions without jeopardizing economic growth. We plan to share experiences gained through the "Activities Implemented Jointly" pilot phase, as well as highlight successful domestic policies and measures that may have lessons for others.

Engaging Developing Countries

We continue to make clear, at every opportunity, that developing countries must be part of the solution to the climate change problem. Meaningful participation by key developing countries is essential. In evaluating what constitutes this level of participation, it is important to keep in mind the substantial differences that exist among developing countries in terms of their emissions profiles, levels of development, capacity for effective action, and economic and political conditions. We have not established a fixed standard or set of criteria. Instead, we want to convey that key developing countries must commit to serious steps to limit their greenhouse gas emissions and help in the international effort to control global warming. This could effectively be accomplished through developing countries' taking on their own emissions targets, consistent with economic growth, which would enable them to participate in international emissions trading. At the same time, we do not believe that it makes good sense to rule out other potential ideas for accomplishing the desired result, namely that key developing countries take serious steps to limit their emissions. We also believe that active participation in the Clean Development Mechanism could be a factor in determining meaningful participation.

At COP-4, we anticipate that the issue of developing country participation will be extensively discussed. COP-4 will provide an opportunity to advance the ongoing dialogue on the need for greater developing country involvement and the meaningful participation of key nations. We also expect important discussions on the Clean Development Mechanism, as noted earlier, and on ways that non-Annex I Parties can more fully achieve their existing Climate Convention commitments.

Technical Issues

Meeting only once a year, the COP must take up a number of technical issues that often do not receive as much attention as the others I have mentioned. An example of this is land use change and forestry, more commonly referred to as "sinks." Because of the linkages to the Kyoto Protocol, the COP will seek to continue to increase understanding of the concepts found in Article 3, including those recently addressed at a joint workshop sponsored by the Intergovernmental Panel on Climate Change (IPCC) and the Subsidiary Body for Scientific and Technological Advice (SBSTA) under the Convention – afforestation, reforestation and deforestation. The outcomes of the workshop – an outline for an IPCC Special Report on land use change and forestry and suggestions for authors – were forwarded to the full IPCC Plenary which met a few days ago in Vienna and agreed on a final outline for this Special Report that should be available in early 2000. A second workshop will be held in the United States early next year to consider the additional categories of sinks in Article 3.4 of the Protocol.

A second important "technical" issue is that of reporting obligations under the UNFCCC. The Parties will consider how Annex I Parties are to begin preparing for the submission of their third national communications by addressing timing and guideline questions. Because these reports will contain emissions inventory data as well as description of policies and measures, they will be critical indicators of progress in the post-2000 period. The Parties will also agree upon the process for considering the first communications from non-Annex I Parties. Such a process will enable all Parties to determine how these Parties are fulfilling their Convention obligations, to what extent they are taking measures to mitigate climate change, and what further assistance they may need.

Bilateral and Multilateral Activities: Advancing U.S. Climate Change Diplomacy

Since Kyoto, the State Department and other U.S. government agencies have been hard at work to further U.S. objectives through a "full court" diplomatic press in a variety of multilateral and bilateral discussions. At the highest levels, President Clinton and Vice President Gore have raised climate change in their meetings with the leaders of China, Korea, and other countries in Europe, Latin America and Africa. Secretary Albright has also taken advantage of every opportunity in many of these and other countries to urge other nations to support our positions on the flexibility mechanisms and securing meaningful participation by key developing countries.

Under Secretary of State Stuart E. Eizenstat led our delegation to an informal Ministerial on Climate Change held in Tokyo on September 17-18. Among the approximately twenty countries invited to attend, there was a strong spirit of cooperation and shared commitment to continue the progress on climate change begun in Kyoto last December. The Ministerial focused on the critical COP-4 issues that I have outlined, especially emissions trading. One week later, I led the U.S. delegation to a ministerial on the Clean Development Mechanism, co-hosted by the Canadian, Brazilian and Argentine governments. The meeting sought to inform ministers and other high-level officials on technical issues of the CDM and its potential to facilitate the transfer of technology and investment opportunities in developing countries. I believe it also enhanced the cooperative spirit between developed and developing countries on this important flexibility mechanism. Both meetings, and others, provided excellent occasions to have bilateral discussions with a number of delegations including those from Argentina, Brazil, China, and Samoa.

Most recently, I was in London last Friday meeting with my G-8 counterparts to discuss our respective views on the flexibility mechanisms, developing country participation, and other issues that will arise in Buenos Aires. A great deal of effort centered on convincing our European partners of the necessity of an unfettered emissions trading system, built on a foundation of credible reporting, measurement and verification. We are awaiting developments in Luxembourg this week as the EU Environment Ministers formulate positions for COP-4.

Within the last month, I have also traveled to China, Korea, Japan and Canada to advance our climate change goals. In early September, I led an interagency delegation to China, in fulfillment of an agreement reached at the Clinton-Jiang Presidential Summit. We had very productive discussions with a number of ministries to identify areas of cooperation between our nations. We were encouraged by the positive atmosphere of the talks and their usefulness in sharing views and perspectives. In Seoul, we met with Korean government officials and explored how to advance full acceptance of the flexibility mechanisms and offered technical bilateral cooperation on energy efficiency and conservation, assessment of reduced reliance on fossil fuels, and other related environmental issues, including the identification and evaluation of ancillary health benefits. In virtually every instance, we have explored how developing countries could assume commitments consistent with their economic and environmental objectives, particularly in light of the flexibility mechanisms.

In addition to these extremely useful sessions, the "Umbrella" group (a group of countries with common views on many of the flexibility mechanisms, and including the U.S., Japan, Canada, Australia, New Zealand, Norway, Iceland, the Russian Federation, and Ukraine) held meetings in Wellington, New Zealand, September 7-8. Participants from eight of the nine Umbrella partners (Ukraine was not able to attend) met to discuss issues related to emissions trading including allocation of risk in transactions and institutional structures. In addition to agreement to continue our close, collaborative efforts, the Umbrella group reached consensus on responses to questions on the flexibility mechanisms posed by the developing countries at the June meetings of the UNFCCC Subsidiary Bodies. Ukraine's concurrence to the responses was gained through off-line conversations at the meeting of the OECD/IEA Annex I Experts Group in Paris, which immediately followed the Umbrella session. At that meeting, we had an opportunity to discuss international emissions trading at some length. We understand that papers informed by the discussion at the Paris meeting are being prepared by the OECD for COP-4. With regard to Ukraine, a State Department-led delegation is meeting with officials in Kiev this week to enhance their understanding of emissions trading through a workshop and to conduct general climate change bilaterals.

Next Steps: Three Weeks to COP-4

In the coming weeks, the Administration, the Department and other agencies will be fine-tuning our negotiating position for Buenos Aires and working to build alliances with partners on the whole suite of issues. We intend to utilize every opportunity to convey our position and seek support for our views on the flexibility mechanisms, developing countries, and the technical issues. We look forward to your participation in the Buenos Aires meeting, and to working with you as we seek to address this critical problem.

Mr. Chairman, Members of the Subcommittee, thank you for your attention. I would be pleased to respond to any questions that you might have.

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GENERAL SECRETARIAT
OF THE COUNCIL

Luxembourg, 6 October 1998

Meeting document CONS/ENV/98/7

SN/109/98

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MEETING DOCUMENT

Subject: Community strategy on Climate Change
- Conclusions as adopted by the Council
(doc. 11439/98)

1. The Council stresses that the European Community and its Member States are committed to making substantial progress on outstanding issues both under the Convention and under the Kyoto Protocol at the Fourth Conference of the Parties (CoP4) to the Framework Convention on Climate Change (UNFCCC) taking place in Buenos Aires in November 1998 in order to keep up the momentum of Kyoto.

2. The Council believes that in order to facilitate further this work, the CoP4 has to adopt a decision on a detailed action plan for the future work of Subsidiary Bodies including

- key issues and specific timetables for the further development of the mechanisms provided for in Articles 6, 12 and 17 of the Kyoto Protocol;

- specific ways to facilitate co-operation and coordination amongst Annex I Parties with regard to the implementation of policies and measures under Article 2, in order to achieve the targets of the Kyoto Protocol (for instance through a Working Group). In certain fields international discussions have progressed sufficiently far for it to be conceivable in the fairly near future that some elements of coordinated policies and measures could be derived from these discussions;

- the development of guidelines on

  = national inventory systems under Article 5
  = information required under Article 7
  = the review of implementation under Article 8 and;

- the development of procedures and mechanisms to determine and address cases of non-compliance with the provisions of the Protocol.

To this end, the Council sees the need to further strengthen the co-operation with other Parties in the elaboration and implementation of the Protocol, with a view to reaching agreement on as many operational issues and principles as possible at CoP4.

3. The Council reaffirms that developed countries have to take the lead in combating climate change. The Council further reaffirms that the commitments in Article 4.2 (a) and (b) of the Convention are not adequate to meet the ultimate objective of the Convention. The second review of the adequacy of commitments should therefore address the question of what additional action would be needed to meet the objective of the Convention and the information necessary to answer that question. This should include: an examination of the obligations of the Parties to the Convention, as required by Article 7.2 including assessment of the capacity of Parties to meet those obligations; the scope for the obligations of some or all Parties to be strengthened, including by the assumption of limitation or reduction targets; adoption of policies and measures and ways and means of assisting Non-Annex I Parties through bilateral and multilateral channels in the fulfilment of such obligations.

4. The Council recalls its views on principles for the flexible mechanisms, as already expressed in previous Council Conclusions, and in particular in its Conclusions of 23 March 1998 and 17 June 1998. It is the aim of the Council that only Parties bound by a compliance regime shall make use of these mechanisms. The Council confirms, as a basis for further negotiations on the mechanisms provided for in Articles 6, 12 and 17 of the Protocol, the positions on International Emissions Trading, Joint Implementation and the Clean Development Mechanism which have been elaborated by the European Community and its Member States jointly with Candidate Countries, Switzerland and Croatia, and which have been submitted to the UNFCCC Secretariat. The Council stresses the importance of intensifying the dialogue with these and other Parties on the development of the flexible mechanisms as well as on policies and measures for the implementation of the Protocol.

5. The Council agrees on the need to elaborate modalities and procedures for CDM which fully recognise the innovative character of the mechanism, in particular with regard to technology co-operation, taking into account the aims of CDM as defined in Article 12.2 of the Protocol. On the basis of the above-mentioned position the European Community and its Member States will actively consult with other Parties in order to achieve this objective. In accordance with Article 12.3 (b) only a part of emission limitation and reduction commitments under Article 3

can be met through certified emission reductions accruing from CDM projects. This provision is necessary because emission reductions achieved under the CDM lead to an expansion of the overall assigned amount of Annex I Parties. The part shall be determined in a way which ensures that Annex I Parties overall still achieve a significant reduction in their emissions domestically. The Council reaffirms that an early agreement is needed in this regard.

6. The Council reaffirms that the flexible mechanisms defined in the Kyoto Protocol are supplemental to domestic action, which should provide the main means for meeting the commitments under Article 3 of the Protocol. The principles, modalities, rules and guidelines for the operation of the mechanisms have to ensure that they do not undermine domestic action or weaken these commitments. In this context, the Council also recalls that a concrete ceiling on the use of flexible mechanisms has to be defined to achieve these aims. It should be defined in quantitative and qualitative terms based on equitable criteria. The Council believes that the discussion between all Parties on the practical elaboration of the supplementarity principle has effectively to start at CoP-4. This elaboration needs to constitute an essential element of the work plan to be adopted at Buenos Aires. The Council urges all Parties to co-operate with a view to reaching final agreement on this issue at CoP-5. The Council requests the Ad Hoc Group on Climate Change to continue its work and report back to Council with a proposal for such a definition as a matter or urgency after CoP-4.

7. The Council stresses the importance of a comprehensive compliance regime covering all issues under the Protocol, including compliance regarding flexible mechanisms, and ensuring regular reporting by the Parties as a prerequisite for assessing compliance with the provisions of the Protocol. Procedures and mechanisms to address cases of non-compliance, including binding consequences, should have regard to the proportionality of consequences and the establishment of a due process. Work on the development of such a regime should start at CoP 4 as a matter of urgency.

8. There are considerable issues of complexity involved in the inclusion of sinks such as links with biodiversity, forest and desertification issues, consistency with sustainable development and the verification and certification of reductions from sequestration activities. The Council supports the conclusions adopted by SBSTA at its eighth session and recalls that the methodological work and in particular the Special Report of the IPCC is a necessary basis for decisions of the Conference of the Parties serving as the meeting of the Parties to the Protocol on issues related to Article 3.3 or to Article 3.4 of the Kyoto Protocol.

9. The Council emphasizes the importance of making early and substantial progress in implementing effective common and co-ordinated policies and measures (CCPMs), including consideration of the potential of measures for effective internalization of external environmental costs, within the Community as already expressed in previous Council Conclusions and in particular in its Conclusions of 23 March 1998, 11 May 1998 and 17 June 1998. In this context the Council takes note of the Presidency Conclusions at the European Council in Cardiff inviting all relevant formations of the Council to establish their own strategies for giving effect to environmental integration and sustainable development within their respective policy areas. Climate Change was identified as one of the areas where integration is necessary in order to achieve this objective. The Council recalls the Conclusions of the European Council that the "Transport", "Energy" and "Agriculture" Councils are invited to start this process. In the preparations of these Councils central attention should be given to the climate issue; the sectoral reports on integration of environmental aspects for the European Council in Vienna should identify effective policies and measures in order to contribute to the fulfilment of the Kyoto commitments, thus enabling the European Council to take stock of progress.
Progress should be reported to the European Council as an important example of environmental integration.

10. The Council asks the Commission :

- to indicate how Community budgets, programmes and funds can be better geared towards measures to support meeting the Kyoto commitments of the European Community and its Member States;

- to indicate how EC ODA funds might better serve the objective of the UNFCCC, noting that these funds should not be used to finance the acquisition of certified emission reduction units;

- to consider the implications of EC rules on state aid on the use of the flexible mechanisms by the Member States.

DRAFT STATEMENTS TO BE ENTERED INTO THE COUNCIL'S MINUTES

Re: para 6

"Italy is of the opinion that the words "the main means" should mean that no less than 50% of the Kyoto target for the European Community and its Member States must be achieved through domestic actions".

Re: para 10, second indent :

"In the absence of a more elaborated assessment and in view of not pre-empting any future discussion, the European Commission reserves its position on the point that ODA funds should not be used to finance the acquisition of certified emissions reduction units.

The Commission also points out that it only disburses around 17% of the total development aid of the European Union.".

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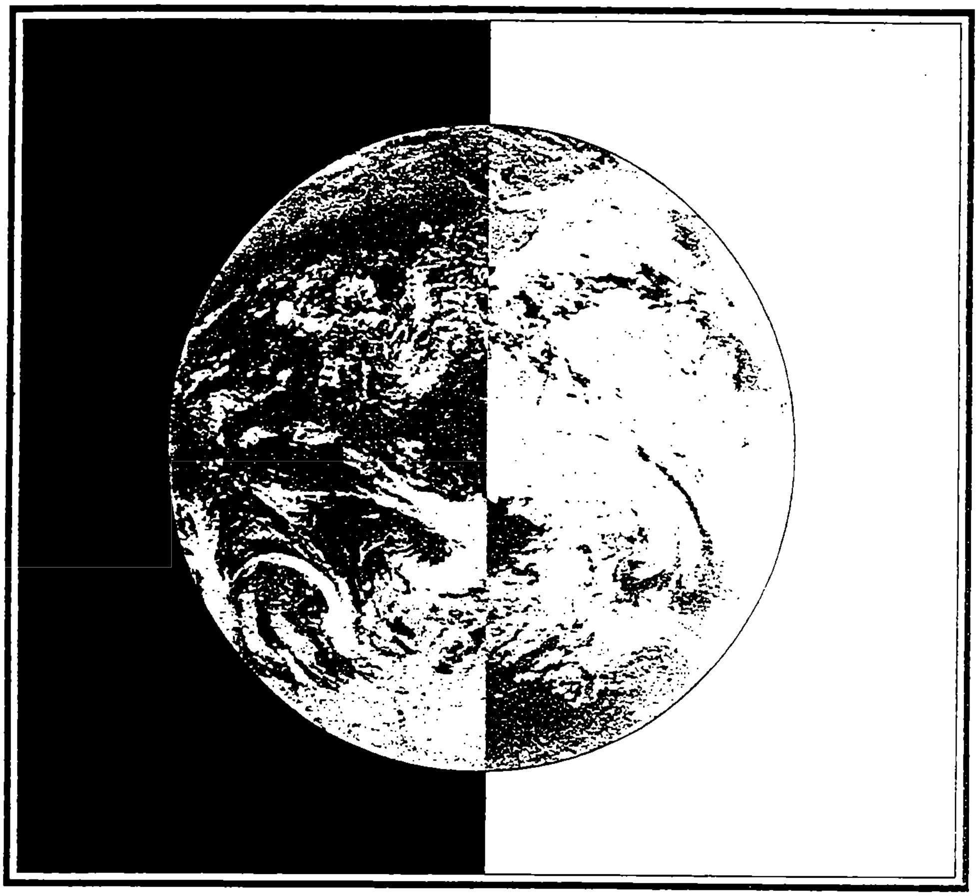
CLIMATE CHANGE



INITIATIVE

1998 - 2002

United States Agency for USAID International Development

Executive Summary

Global climate change poses profound threats to international economic development and ecological balance. The greatest costs will be borne by poor nations least able to cope with crisis and adapt to change.

Speaking at the United Nations (U.N.) General Assembly Special Session on Environment on June 27, 1997, President Clinton announced that the United States would provide $1 billion over the next five years to collaborate with developing nations and countries in transition in reducing the threat of climate change. That announcement signaled the United States' renewed commitment to facilitate technology transfer and help developing and transition countries to meet the spirit and obligations of the United Nations Framework Convention on Climate Change (FCCC). The President's announcement included three components: a minimum of $750 million in grant assistance over the next five years, up to $250 million in "climate-friendly" investment stimulated through the use of credit instruments, and a $25 million inter-agency climate change program. This document — focusing on the first two components, which comprise the United States Agency for International Development's (USAID) Climate Change Initiative — outlines the steps USAID will take to make the President's commitment a reality.

Climate Change and Developing Nations

Changes in the global climate could affect all sectors of the global economy and all realms of the natural environment. The impact will vary from country to country and region to region; different sections of nations will be affected differently and at different times. It is expected that the impacts of global climate change will, however, be felt most by many of the countries that have contributed least to the problem. Developing nations and transition countries will face the greatest risks for a variety of reasons, including the fact that many of these nations are low-lying or island states, have limited water resources, have economies that are highly dependent upon natural resources and agriculture, or have limited capacity or means to adapt to and cope with change.

At the same time that developing nations are most vulnerable to climate change, their contribution to emissions is growing. While annual emissions from industrialized countries represent over half of global greenhouse gas emissions, the growth in emissions from developing nations is accelerating. If current growth trends continue, in 2035, developing countries will account for almost half of annual emissions from industrial sources.

Strategies for addressing climate change must strive to reconcile social and economic aspirations with the need to address local and global environmental threats. At the same time, efforts to promote development need to incorporate programs that help nations decrease vulnerability to climate change.

Climate change will almost certainly increase the need for international collaboration and humanitarian relief around the world. The challenge will be to ensure that efforts to mitigate and adapt to climate change are not compromised by the demands for emergency relief. As more and more resources are expended to deal with the human costs of climate change, the ability of societies and the international community to address root causes of emissions and foster long-term adaptation may be compromised.

The Role of USAID and the Objectives of the Climate Change Initiative

As the development assistance arm of the U.S. Government, USAID has a critical role to play in working with developing nations to reduce the rate of growth in emissions of greenhouse gases and decrease the threat climate change poses to sustainable development. This overview of the Climate Change Initiative outlines the strategy USAID will use to address comprehensively the climate change threat. The underlying principle of the Initiative is that efforts to reduce greenhouse gas emissions and vulnerability to climate change will be critical if USAID is to promote development that is sustainable. In the long-term, economic development will be enhanced, not compromised, by efforts to reduce greenhouse gas emissions. In the immediate term, there is a vast array of activities that can promote economic development, reduce the rate of growth in net greenhouse gas emissions and decrease vulnerability to climate change.

Using the Climate Change Initiative as a starting point, USAID will promote sustainable development that minimizes the associated growth in greenhouse gas emissions and vulnerability to climate change. The Agency will undertake activities that are "win-win"—simultaneously promoting sustainable development and combating climate change. USAID will examine its full range of programs to see how efforts to promote development may affect and be affected by climate change. By applying a climate change "filter" when developing and implementing programs, USAID hopes to be able to better promote development that is truly sustainable.

While the U.S. commitment to dedicate at least $1 billion to address global climate change is significant, USAID recognizes that those resources are far less than what will be required to address the climate change threat. USAID will strive to serve as an effective catalyst, focusing on leveraging and fostering the involvement of other bilateral and multilateral donors, international financiers, the public and private sectors, and non-governmental organizations. The Agency's success will be in part measured by the extent to which others actively engage.

An Overview of the Initiative

The Climate Change Initiative represents a significant commitment on the part of the U.S. Government in several ways. Most basically, it will ensure a substantial financial commitment to climate change-related programs in developing and transition nations over the next five years and will result in the commitment of an additional $250 million to foster "climate-friendly" investment in developing and transition countries. The Initiative also will have a significant impact on the Agency's approach to foreign assistance; it will foster a broader vision of development assistance that recognizes that reducing the climate change threat is central to successfully promoting sustainable development. Finally, the Initiative will strengthen the U.S. Government's ability to measure the global impact of its foreign assistance program, focus and prioritize efforts on the basis of global imperatives, enhance donor community involvement, and demonstrate a U.S. commitment to assist and collaborate with developing nations under the FCCC.

Under the USAID Climate Change Initiative, the Agency will concentrate resources and attention on a set of countries and regions selected because of their contribution (and predicted future contribution) to net global greenhouse gas emissions and/or their governments' receptivity to taking concrete action. Nine countries and three regions will receive priority: Brazil, Central Africa (Cameroon, the Central African Republic, the Republic of Congo, the Democratic Republic of Congo, Equatorial Guinea and Gabon), Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama), Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), India, Indonesia, Mexico, Philippines, Poland, Russia, South Africa and Ukraine. Although China is a major emitter of greenhouse gases, USAID currently does not operate in China.

The Initiative specifies three areas of emphasis:

- Decreasing the rate of growth in net greenhouse gas emissions by decreasing greenhouse gas sources and maintaining or increasing greenhouse gas sinks
- Increasing developing and transition country participation in the FCCC
- Decreasing developing and transition country vulnerability to the threats posed by climate change

1. Decreasing the rate of growth in net emissions

In the energy sector, USAID will focus on activities that result in the following improvements in the energy sector:

- Substitution of less carbon-emitting fuel sources
- Use of non-fossil renewable energy sources
- Increased efficiency in power generation, transmission and distribution
- Increased end-use energy efficiency
- Decreased use or increased combustion efficiency of carbon-emitting fuels in transportation
- Substitution of less carbon-emitting fuels in transportation
- Reduced market barriers to and increased incentives for more environmentally sound power sector investment

In the land-use sector, USAID will pursue activities that either increase the storage of carbon in ecosystems or land-use systems (act as carbon "sinks"), or decrease the release of carbon stored in biomass due to human activities. USAID will engage in activities that result in the following:

- The preservation, re-establishment or more sustainable management and use of forests, trees and denuded lands
- The maintenance and preservation of wetlands and mangroves
- Decreased burning of savanna, rangeland, forest and brushland
- Increased agricultural productivity to stabilize the agricultural frontier
- Increased soil organic matter and decreased soil erosion
- Increased use of biofuels
- Improved animal husbandry

In urban areas and industry, USAID will complement efforts to reduce emissions that result from energy supply and use with programs that result in:

- Increased capture of methane from urban sewage and solid waste
- Increased industrial and municipal adoption of environmental management systems
- Regulatory frameworks and credit mechanisms that facilitate environmental investments
- Increased industrial and municipal investments in clean technologies
- More environmentally sound infrastructure
- More environmentally sound urban transportation systems

2. Increasing developing and transition country participation in the goals of the FCCC

Participation in the negotiation and implementation of the terms and spirit of the FCCC will be fundamental to finding a global solution to climate change. The U.S. Country Studies Program and the U.S. Initiative on Joint Implementation (USIJI), two inter-agency U.S. Government climate change programs, are important vehicles for collaborating with developing nations. In consultation with the inter-agency process, USAID will seek to enhance developing and transition country participation in the FCCC by facilitating:

- Creation of national emissions inventories, baselines and budgets, national action plans and national communications
- Enhanced capacity to track, monitor, report and verify greenhouse gas emissions and project baselines
- Enhanced capacity to monitor and project vulnerability to climate change
- Public-private partnerships that transfer environmentally sound technologies that mitigate climate change
- Developing country acceptance of greater commitments under the FCCC
- Stimulation of joint implementation (JI) projects and participation in other flexible market mechanisms
- Establishment of legislative, regulatory and market structures, and local capacity to participate in emissions trading regimes, in appropriate countries
- Integration of climate change concerns into national sustainable development strategies
- Increased capability to model the micro and macro economic effects of climate change

3. Decreasing vulnerability to the threats posed by climate change

Given its broad experience in development, USAID is uniquely positioned to help increase the capacity of developing countries and countries in transition to adapt to change and cope with the predicted impacts of climate change. Programs that have the following results will be an integral part of the Agency's climate change strategy:

- Increased preparedness for natural disasters
- Increased adaptability and efficiency of agricultural systems, municipal management, water resources management and public health systems
- Maintenance of healthy, resilient ecosystems
- Improved domestic and international capacities for conflict-resolution regarding shared resources, such as water

To achieve the results outlined above USAID will use a range of tools and approaches, including policy reform, institutional capacity building, education and outreach, and information collection and dissemination. USAID also will place particular emphasis on four additional tools: technology cooperation; partnerships with the private sector; collaboration and coordination with other bilateral and multilateral donors; and the use of loans and loan guarantees to foster private trade and investment in environmentally sound technologies and projects that mitigate climate change.

USAID will work with a wide range of public, private and non-government partners in implementing the Initiative. In addition to USAID's developing country partners, collaborators will include other agencies and departments of the U.S. Government, multilateral development banks, other multilateral and bilateral donors, and public, private and non-governmental organizations throughout the world.

Through the Initiative, USAID will highlight several new areas of emphasis including the following:

- Quantifying the health and productivity costs associated with local air pollution that fossil fuel combustion generates in an effort to expand the definition of "win-win" efforts to decrease greenhouse gas emissions.
- Analyzing the specific regional and local vulnerabilities climate change poses. This study will be used to identify areas of particular vulnerability that USAID needs to address.
- Facilitating private sector transfer of clean-energy technology to key countries and regions; a first step in this direction is the promulgation of model "Global Climate Change Technology Cooperation Agreements (TCAs) " with key countries.
- Reducing the vulnerability of urban populations, property and infrastructure to the threats posed by climate change.
- Enhancing environmental education and outreach to involve non-governmental organizations, the private sector and governments in efforts to promote development while reducing the rate of growth in net greenhouse gas emissions.
- Working with the donor community to promote, more effectively, development that minimizes the growth in greenhouse gas emissions.

While the commitment of $1 billion over five years is significant for the U.S. Government, it is a small share of the resources necessary to minimize the threats climate change poses to developing and transition countries. A concerted global effort will be required. The creation of close partnerships with a variety of actors will be critical to the success of the Climate Change Initiative. USAID will work with multilateral and bilateral donors, international organizations, the private sector, and other agencies and departments of the U.S. Government. By intensifying coordination, USAID will multiply the impact of its programs, and increase the pace and durability of reforms in partner nations.

USAID Management of the Climate Change Initiative

USAID programs are designed and implemented in collaboration with developing nations to target local priorities and develop locally appropriate solutions. The Climate Change Initiative provides a framework and a set of priorities upon which activities will be designed and implemented. Programs under the Initiative will combine an emphasis on meeting local needs with a greater focus on global goals and objectives. Activities will be developed in partnership with beneficiaries to address local priorities while combating the rate of growth in net emissions of greenhouse gases.

USAID will form a Climate Change Committee to make proposals and decisions over issues of policy related to implementation of the USAID Climate Change Initiative. The Committee will include representatives from each bureau within USAID. An Agency-wide Climate Change Team will continue to serve as the locus for information sharing on programming, current events, results reporting and USAID collaboration with other Agencies and development partners.

Consistent with its role as Agency technical representative on climate change, the USAID Global Bureau Center for Environment will continue to facilitate the Climate Change Team, and serve as USAID representative to all interagency climate change programs. The USAID Policy and Program Coordination Bureau will continue to oversee the consistent application of policy on climate change Agency-wide, and ensure that climate change receives a high level of attention in efforts to collaborate with other donors. The USAID Bureau for Management will ensure that obligations are commensurate with fulfilling the President's commitment.

Budget

The obligation of resources under the USAID Climate Change Initiative will be focused on mitigating net greenhouse gas emissions, and fostering developing and transition country participation in the FCCC. USAID obligations as part of the Initiative will include at least $750 million in grant assistance, and upon meeting Congressionally mandated management reforms, the use of credit tools to leverage at least $250 million in additional climate change-related trade and investment. A minimum of $150 million per year will be obligated by the Agency for climate change-related activities in each of the next five years. Of the total $750 million in climate change-related grant assistance, at least 40 percent will be obligated to programs in the Agency's key climate change countries and regions. A significant additional percentage will be obligated to the Agency's program in Egypt. Climate change-related programs in other USAID-assisted countries will fulfill the remainder of obligations as part of the Initiative. At least two-thirds of the investment USAID stimulates through the use of credit instruments as part of the Initiative also will be focused on USAID key climate change countries and regions.

Monitoring and Measuring Results

Monitoring and measuring the results achieved will be among the Agency's highest priorities. Under the Initiative a concerted effort will be made to measure the impact of programs, assess the most effective strategies for combating the threat of climate change, and hone and focus the Agency's approach. The Initiative builds on the Agency Objective for climate change which will be used to track programs and obligations. USAID has begun development of its climate change results monitoring plan, and reporting will begin at the end of FY 1998.

TECHNOLOGY COOPERATION AGREEMENT PILOT PROJECT

Development-Friendly Greenhouse Gas Reduction

The Technology Cooperation Agreement Pilot Project (TCAPP) was launched in August 1997 to foster climate change technology cooperation in Brazil, China, Kazakhstan, Mexico, and the Philippines. The project is supported by the U.S. Agency for International Development (USAID), the U.S. Environmental Protection Agency (USEPA), and the U.S. Department of Energy (USDOE) in cooperation with the U.S. Country Studies Program (USCSP) and the U.S. Initiative on Joint Implementation (USIJI).

TCAPP is a voluntary partnership to advance implementation of clean energy technologies. In-country organizations participate only if they believe technology cooperation can bring results, and countries are not required to make formal commitments. The National Renewable Energy Laboratory, together with other cooperators, assists country teams in developing and implementing technology cooperation frameworks and in engaging private sector organizations and international donor agencies. These technology cooperation frameworks provide a solid foundation for developing technology cooperation agreements that may be useful multilaterally.

Goals

- Foster private investments in energy technologies that reduce greenhouse gas emissions and produce economic benefits for the country.
- Engage in-country and international donor support for actions to build sustainable markets for clean energy technologies.
- Establish technology cooperation agreements as an organizing structure for coupling in-country, donor, and private-sector climate change mitigation actions.

Activities

The Technology Cooperation Agreement Pilot Project includes three major activities:

1. *In-country teams set the direction by preparing technology cooperation frameworks.* These frameworks identify priorities for advancing implementation of energy technologies that will contribute to development objectives and reduce greenhouse gas emissions. These frameworks define barriers to private investment and identify opportunities for coupling actions by domestic agencies, international donors, and private sector investors to achieve sustained investment in the technologies.
2. *Private firms and business/investment organizations assist the country teams and international donor agencies with design and implementation of actions to mobilize investment in the priority technologies.* Two business-oriented organizations, the Business Council for Sustainable Energy and the Environmental Enterprises Assistance Fund, are partners in TCAPP. They engage private firms from developed and developing countries in the effort and help country teams implement a strategy to attract private investment.
3. *International donors assist country teams in implementing actions to remove market barriers.* These actions include policy and institutional reforms, capacity-building, educational and outreach activities, and business development initiatives.

TCAPP Implementation Schedule

November 1997	International workshop on the Technology Cooperation Agreement Pilot Project (Golden, CO)
December 1997	COP-3 side-event to discuss technology cooperation agreements
April 1998	Presentation of TCAPP at OECD-IEA Climate Forum
September, 1998	Countries complete draft frameworks
September 24, 1998	Meeting with private sector businesses to present frameworks and review opportunities for business participation (Washington, DC)
October 9, 1998	Meeting with international donor agencies to present frameworks and review opportunities for donor participation (Washington, DC)
December 1998	Immediate market opportunities identified for each country
June 1999	Country teams and private sector organizations begin implementing actions to attract private investment
September 1999	International donor agency support secured for initial actions to remove barriers in each country

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WALL STREET JOURNAL

10-20-98 A2

Dispute Erupts Over Global Emissions-Trading

By JOHN J. FIALKA
Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON—The formation of a private, global organization to market so-called greenhouse-gas-emissions trading certificates on the Internet has triggered a protest by some U.S. traders, who say it may violate U.S. laws.

The group, called the International Emissions Trading Association, is being organized in Geneva with sponsorship from the United Nations Conference on Trade and Development, or Unctad. The group's backers see it as a prototype for a future multibillion-dollar market.

Emissions trading, or the exchange of certificates authorizing the emission of a certain amount of a pollutant, such as sulfur dioxide, was pioneered in the U.S. with the Environmental Protection Agency's help, and is now a $1 billion-plus market. Brokers who use the U.S. system, where trades are handled mostly through private brokerage firms, will hold a news conference today objecting to the U.N.-backed group.

"We think establishing a closed trading system at this time is counterproductive," says Daniel Chartier, president of the Emissions Marketing Association, which has 137 members, mostly from the U.S.

Mark L. Perlis, a Washington lawyer and member of the Milwaukee-based EMA, says the Geneva venture "smacks of possible antitrust violations and intermingling of government and nongovernment functions."

"I think they've got it wrong," counters Frank T. Joshua, head of Unctad's emissions-trading office. The not-for-profit private organization, he says, is being set up under a Swiss law prohibiting conflicts of interest or undue government influence on trading. He says the group will help governments and companies establish rules for global trading.

Mr. Joshua says 35 international companies, including British Petroleum Co., Royal Dutch/Shell Group, Texaco Inc., Mobil Corp. and General Motors Corp., have agreed to join. The organization will hold its first meeting next month in Buenos Aires during a U.N. session there to work out rules for global emissions trading.

Greenhouse gases include carbon dioxide and methane, which many scientists believe are causing the Earth's climate to heat up. Emissions trading, which may help companies control and spread the risks and costs of future antipollution equipment, was authorized in last year's global-warming treaty signed in Kyoto, Japan.

Mr. Joshua says his group will help "kick-start" the process by privately trading certificates among members. Founding members, which will pay $25,000 a year for membership, will also share proprietary information such as plans to curb carbon-dioxide emissions on a global basis, he says.

The group hopes to recruit 50 corporations as founding members, which would get enhanced voting power on its board of directors, he says. Later, associate members, such as government agencies, could join for smaller fees, but would have a smaller voice on the board. Commercial functions such as brokering and verifying emissions certificates will be contracted to private firms.

A few trade enthusiasts, such as Richard L. Sandor, a Chicago emissions trader, economist and vice chairman of the Chicago Board of Trade, are applying for membership in the EMA and the new organization. "I think there's a role for both," says Dr. Sandor, who thinks the U.N.-backed group will help encourage developing nations to participate in trading.

Friday, Oct. 9th, 1998

NEW YORK TIMES

Study Says Emissions Cut Will Raise Fuel Costs

By JOHN H. CUSHMAN Jr.

WASHINGTON, Oct. 8 — The Energy Department's official forecasting arm has produced an extraordinarily pessimistic forecast of steeply rising energy prices if the United States fights global warming by clamping down on emissions of heat-trapping gases that come from burning fossil fuels.

Under various outcomes, the forecasting arm, the Energy Information Administration, projected gasoline prices would rise to $1.39 to $1.91 a gallon, and electricity prices would rise 20 percent to 86 percent by 2010. Natural gas prices would rise significantly, and coal prices would soar, the forecast said.

Under an international agreement negotiated last year in Kyoto, Japan, the United States would have to reduce emissions of carbon dioxide and other greenhouse gases significantly in 10 to 15 years. But the treaty is in trouble in Congress, where opponents often say it would wreck the economy.

The Energy Department's forecast is sharply at odds with the Clinton Administration's previous assertions that the United States can meet the targets set by the treaty without significant economic disruption. The forecast is to be presented on Friday at a Congressional hearing.

The new study plays directly into the hands of treaty opponents, but those who favor the treaty said it is deeply flawed.

Energy conservation advocates said the forecast, produced using the Energy Information Administration's standard economic models, had relied on absurd assumptions and improper analysis to reach ridiculous conclusions.

"This is one of the most flawed, biased, intellectually dishonest analyses ever produced by an supposedly unbiased analytical organization," said Joseph J. Romm, a former Assistant Energy Secretary. Mr. Romm is an expert on energy technologies like solar power and conservation that would help control greenhouse gas emissions.

He and other critics said the study discounted many of the policies, like tax incentives and research subsidies, that the Administration had proposed for enforcing the treaty if the Senate approved it. They said it used computer models that were unreliable for long-term forecasting.

They said it did not account for the lower costs that would result from a key feature of the Administration's climate change policy: international emissions trading, which would allow the United States to meet the treaty's targets largely by paying other countries to reduce their output of greenhouse gases.

Critics also said the forecast assumed that businesses would be slow to adopt new energy technologies although, under the forecast's own projections, the costs of not acting would be high.

Many such computer models have been used for projecting the costs of the Kyoto agreement protocol on climate change. Because so much depends on the assumptions of the models, their predictions may not be reliable. And critics noted that the Energy Department had a long track record of making bad predictions about long-range trends in energy prices and pollution control costs.

Even so, the new study is certain to fuel criticism of the treaty. The study is scheduled to be presented on Friday at a hearing of the House Science Committee, whose chairman, Representative F. James Sensenbrenner Jr., a Wisconsin Republican, is a leading critic of the climate change treaty.

The study's projections of the costs of controlling the emissions of greenhouse gases are significantly greater than the predictions of several similar studies, even the gloomy forecasts paid for by industry opponents of the treaty that predicted extraordinary costs.

And it predicts that the costs would be much higher than predicted by Janet L. Yellen, chairwoman of the Council of Economic Advisers, in a study released in July.

Eileen Claussen, a former senior State Department official who helped negotiate the Kyoto agreement, said that just as Dr. Yellen's analysis was wildly optimistic, this one was wildly pessimistic.

"Both of these forecasts are totally unrealistic," Ms. Claussen said. "It is the most bizarre thing. They haven't put out a single bit of analytical work on the costs that has any credibility at all."

Ms. Claussen now directs the Pew Center on Climate Change, which has drawn together major corporations pledging early actions to cut their emissions of greenhouse gases.

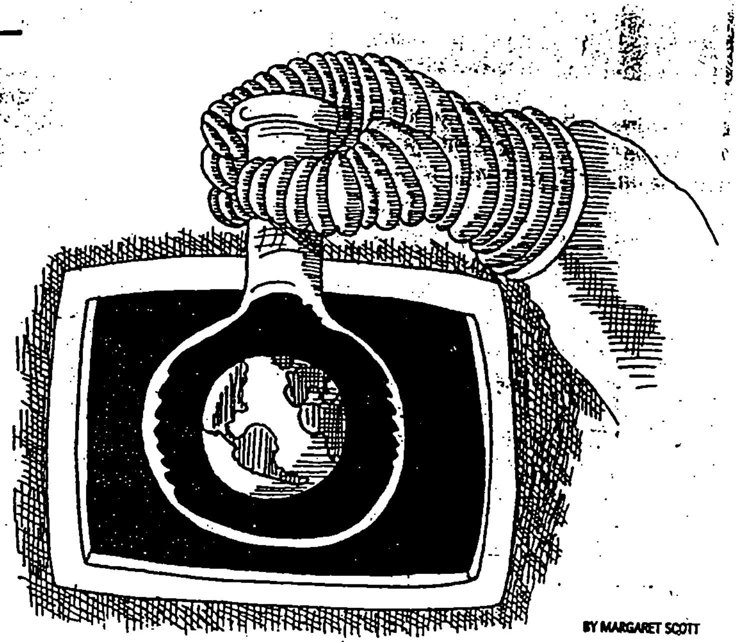
Mr. Romm, who now consults with businesses on how to cut greenhouse gas emissions, criticized the report's assertions that emerging technologies like solar power and fuel cells would gain little over 20 years although costs of traditional fuels were likely to rise.

He ridiculed the study's finding that even with coal prices soaring, power plants would not install any measurable cogeneration equipment, which uses waste heat to generate extra electricity from coal.

Although the new study predicts slowing economic growth as a result of higher energy costs, over the long run this amounts to just tens of billions of dollars in an economy that grows to more than $10 trillion.

The Washington Post Aug. 4, 1998

Kyoto Protocol—Dead on Arrival



BY MARGARET SCOTT

The Post's July 21 editorial "Heat Wave" described the oversight efforts by members of Congress on the issue of climate change. The Post stated its agreement with the Clinton administration's decision not to submit the Kyoto protocol to the Senate because the treaty is "flawed and incomplete."

The treaty is "flawed." Any treaty to reduce man-made global greenhouse gas emissions that exempts 134 nations—many of which will be the world's largest emitters of greenhouse gases—cannot possibly achieve its goal.

The Post states that the president "says he wants to improve the treaty before submitting it to the Senate." That cannot be done. Under the specific terms of this treaty, it cannot be amended or changed in any way *until it has entered into force.* The protocol expressly states that amendments to it may be proposed only by "parties." But the United States cannot become a "party" until after the protocol is submitted to the Senate and, under our Constitution, it has given its consent to the treaty. Thus, it is legally impossible for the administration to "improve the treaty" before it is submitted to and ratified by the Senate.

Further, once the treaty has entered into force, it can be amended only by three-quarters of all the countries that agree to the Kyoto protocol. The developed nations will make up fewer than one-fourth of these nations. The 134 developing countries, which agreed to the treaty in Kyoto but are excluded from its emissions-reduction mandates, comprise more than three-fourths of these notions. A minority of the developing nations easily could block any future amendments or changes to the Kyoto protocol.

So where does that leave the United States? It leaves our country in a position of no control and at the mercy of the countries that have refused to be bound by any of the treaty's legally binding mandates for emissions reductions. There would be such legally binding mandates for the United States, but not for the 134 nations that control the fate of the treaty. This is but one reason why I have called the Kyoto protocol folly.

The Kyoto protocol is not just "flawed." By its own language, it is fatally flawed.

CHUCK HAGEL
U.S. Senate (R-Neb.)
Washington

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International Emissions Trading Is Key To Kyoto-Pact Compliance, Study Says

By JOHN J. FIALKA
Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON—The Clinton administration, in a new study, said U.S. costs of complying with Kyoto Treaty mandates for cutting carbon-dioxide emissions can be reduced by 80% largely by relying on international emissions trading.

Janet Yellen, head of the President's Council of Economic Advisers, predicted "relatively modest costs," working out to an increase of $70 to $110 a year for an average family's electric bill by 2010. In a briefing with reporters Friday, she released an 80-page economic analysis requested by Congress that said computer models predict 75% of the nation's emissions cuts can be achieved by trading with industrial nations and major developing nations such as China.

While Chinese officials have rejected taking part in the treaty, Dr. Yellen noted that a high-level working group has been set up by both nations and will meet in September to explore the potential benefits of trading. International emissions trading would allow industrial nations such as the U.S. to gain credits against their share of reductions assigned by the treaty by helping developing countries reduce their industrial emissions.

"They want to do something about it," said Dr. Yellen, referring to China's severe problem of air pollution, caused by inefficient burning of soft coal. One of the selling points of emissions trading is that it will be much cheaper and more efficient to reduce world-wide emissions by focusing efforts on the globe's worst cases.

But the study drew a quick, negative response from two groups whose political support is needed to draw up an emissions-trading scheme for the treaty, which calls for the U.S. to reduce emissions of "greenhouse gases" by more than 30% during the period from 2008 to 2012. The man-made gases are believed to be overheating the Earth's atmosphere by trapping too much heat from the sun.

Several environmental groups were critical because they want the U.S. to curb emissions at home. The focus on international emissions trades would "deny the U.S. public desperately needed improvements in air quality," asserted Gary Cook, a spokesman for Greenpeace. He called it "a tragic missed opportunity for an administration that touts its concern for children's health."

Congressional Republicans, who have pressed the White House for months to reveal its economic analysis supporting its approach toward global warming, said they still weren't satisfied.

Rep. David M. McIntosh (R., Ind.) argued that Dr. Yellen's report consisted of "conclusions, not analyses." He said it would be "out of touch with reality" to assume China and other developing nations will agree to meaningful participation in the Kyoto Treaty.

Negotiations to complete the treaty will begin in November in Buenos Aires where diplomats will attempt to draw up rules for global emissions trading.

EAP/[illegible]

New York Times Sat., Aug 1, 1998

Study Says Trading Pollution Permits Would Be Economical

By JOHN H. CUSHMAN Jr.

WASHINGTON, July 31 — Paying other countries to cut their pollution could be the cheapest way for the United States to help control the heat-trapping gases that cause global warming, the Clinton Administration said in a new economic analysis released today.

A White House plan on global warming is attacked from several sides.

A system of buying and selling pollution permits internationally, as proposed by the Administration, would cut the costs to the United States at least in half and possibly by as much as 85 percent, according to a study by the White House Council of Economic Advisers. Many economists favor the trading of pollution permits as a free-market mechanism that reduces the costs of pollution controls.

"The world is filled with unbelievably cheap opportunities to reduce emissions abroad," said Janet Yellin, President Clinton's top economic adviser.

The study was intended to substantiate Ms. Yellin's recent testimony before Congress that the United States could meet the targets of a new international climate change protocol, negotiated last year in Kyoto, Japan, at a modest cost. She has estimated that the typical household's annual energy bill might rise as little as $70 per year, although others insist the amount would be far higher.

With the Senate balking at approving any treaty that does not include a substantial role for developing countries in the control of emissions, the Administration has struggled for more than a year to produce a comprehensive analysis of its proposals.

The study released today was at- tr[illegible]y critics on several sides of the climate debate.

Connie Holmes, the chairwoman of the Global Climate Coalition, a group representing large companies that oppose the treaty, called the report "smoke and mirrors." The Administration, Ms. Holmes said, had not faced up to the fact that many foreign nations oppose the idea of pollution trading.

Representative John D. Dingell, a Michigan Democrat who opposes the global warming treaty, said the report "gives every appearance of being a post hoc rationalization, full of tautologies and self-fulfilling, unrealistic or unprovable assertions and assumptions."

Some environmental groups strongly criticized the Administration, saying the study suggested that the United States, which emits more heat-trapping gases like carbon dioxide than any other country, is seeking to avoid much of its responsibility for solving the problem of climate change.

"Their plan is to buy reductions abroad," said Gary Cook, legislative director for the climate campaign at Greenpeace. "We need to take the first steps largely at home."

The Administration's study was based on sophisticated computerized economic models, including one developed by the Battelle Laboratory in Ohio to estimate the economic costs of actions to reduce emissions of carbon dioxide, the principal heat-trapping gas produced when fossil fuels are burned.

The models suggested that the United States could meet its emissions targets, which require reductions of 7 percent below the 1990 level over the next 10 to 15 years, at an annual cost of $7 billion to $12 billion.

Energy prices would increase by amounts equivalent to about 5 cents per gallon of gasoline, according to these projections.

The models suggested that about one-fourth of the reductions in emissions would actually be accomplished within the United States. The rest of the reductions would be bought from other countries that were cutting emissions more than the treaty required, and therefore had surplus pollution permits to sell.

Ms. Yellin and Todd Stern, the White House's senior aide on climate issues, said today that these projections underestimated how much the Administration's policies would reduce emissions at home.

Ms. Yellin said the model did not take into account any of several initiatives the Administration favors to reduce domestic emissions of carbon dioxide. Among these are elements of its proposal to restructure the electric utility industry, to provide tax incentives for energy-saving investments, and to subsidize research into new technologies like solar power and fuel-efficient automobiles.

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'People Are Sweltering,' Says Gore, Tying Record Heat to Global Warming

By Joby Warrick
Washington Post Staff Writer
Wednesday, July 15, 1998; Page A03

Citing new evidence that record-high temperatures were continuing this year, Vice President Gore criticized congressional Republicans yesterday for trying to block the White House from taking action on global warming or even educating people about the threat.

Gore mingled scientific data with tales of heat and drought in the southern United States in his latest attempt to build support for curbing emissions of greenhouse gases. A Republican proposal to scale back the administration's climate program could be debated in the House as early as Thursday.

"The evidence of global warming keeps piling up, month after month, week after week," Gore told a White House news conference. "How long is it going to take before these people in the Congress get the message? People are sweltering out there."

Flanked by government scientists, the vice president released a global temperature analysis that ranks last month as the hottest June since reliable record-keeping started over a century ago. The June readings show the planet continuing its record-breaking streak this year, setting new highs in average temperature in each of the last six months. The mean temperature for June was about 1 degree hotter than the monthly average and 0.4 degrees above the previous high for June set in 1994.

Although the measurements are global averages, they occurred at a time when portions of Florida, Texas and Louisiana experienced some of the worst droughts and heat waves on record. Gore acknowledged that there's no proof that the recent extreme weather events are being caused by global warming. But he said those patterns could occur more frequently because of global warming.

Scientists of the National Oceanic and Atmospheric Administration, which tracks global temperatures, said July is on track for setting yet another record -- perhaps as the hottest month in recorded history. NOAA and its counterparts in Britain have declared 1997 to be the warmest year yet in a decade that has produced, on average, the highest temperatures in at least six centuries.

This year's warming builds on a pattern of gradual increases in global temperatures, a trend that many scientists believe is at least partly due to an increase in concentrations of man-made greenhouse gases in the atmosphere.

"Every day the evidence becomes more persuasive that global warming is underway," said John P. Holdren, a professor of environmental policy at Harvard University's John F. Kennedy School of Government and a member of the president's scientific advisory committee.

Climatologists have put some of the blame for this year's warming on a powerful El Niño that wreaked havoc with the weather in many parts of the globe. But NOAA scientists yesterday said average ocean temperatures did not drop as anticipated after El Niño began to subside in the spring.

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Global Warming Is a Hot Topic at the White House

■ Weather: Clinton, Gore use interest created by heat wave to focus attention on dangers of a changing climate. Scientists debate theory from sidelines.

By JAMES GERSTENZANG
TIMES STAFF WRITER

WASHINGTON—With a wide swath of the nation caught in the enervating grip of a deadly summer heat wave, President Clinton and Vice President Al Gore have seized on the attention it has generated to warn of the dangers of global warming.

"As you can see from this sweltering heat, the climate of our country and our globe is changing," Clinton said Monday during an appearance in sweltering New Orleans.

But the science of global warming, the term attached to the notion that the Earth's temperature is increasing because of the greenhouse effect, is much more complicated than that, as scientists, including government experts, have taken pains to emphasize.

It is unlikely that any one event can be attributed to global warming, they say, even though a trend to which it contributes—in this case record-setting high temperatures around the globe month after month—is said to prove that the world's climate is getting warmer.

"Global warming is a relatively small change from year to year, but it is always pushing in one direction," said Kevin Trenberth, one of the government's leading researchers studying climate change around the world. "A lot of what we're seeing at the moment is the kind of extremes we expect from global warming."

Several recent climate trends have fueled the debate over global warming.

For each of the first six months of 1998, the mean global temperature was warmer than it was during the corresponding month in 1997. The monthly trend was topped off in June, when global surface temperatures were, on average, 1 degree warmer than the long-term mean temperature for the month, according to records kept since 1880 by the National Oceanic and Atmospheric Administration.

But critics of the global warming theory say measurements taken anywhere from 5,000 to 30,000 feet above the Earth—which, some say, show little recent change or perhaps even a cooling trend—are more meaningful.

In addition to the temperature increase at the Earth's surface, drought in Florida contributed to the devastating fires there over the last several weeks, and torrential downpours produced unusually fierce flood torrents in the northeastern United States.

It is unclear whether these events are related to global warming.

Warmer temperatures may have pushed back the start of the summer rainy season in Florida, scientists say, and thus induced greater evaporation from the surface of the ocean, lifting more moisture into the atmosphere, carrying it elsewhere and then dropping it in sudden, intense storms.

"When you put the whole picture together, one should conclude that global warming is playing a role," said Trenberth, head of the climate analysis section of the National Center for Atmospheric Research in Boulder, Colo. "A few degrees on top of what would already be a heat wave pushes the edge a bit more. It goes over a threshold, and things are no longer tolerable."

On the other hand, he added: "Most of what is going on is summertime. It's supposed to be hot. Maybe it's bit hotter than it would be . . ."

Reflecting scientists' uncertainty about when the occasionally unusual crosses the line to become a demonstrable trend, as well as his conviction that "the atmosphere is a pretty chaotic, hard-to-understand system,"

Randall Ceverny, a climatologist at Arizona State University, said: "If we were to see many, many more heat waves each and every year, that would be a trend associated with global warming."

Gore and, increasingly, Clinton, have been among the more vocal political adherents of the global warming theory—reflecting the widespread agreement, but certainly not unanimity, among scientists and others who have studied data that the Earth's climate has been growing measurably warmer, most notably in the last decade.

Both Clinton and Gore have focused their attention on the weather pattern as Congress has debated an appropriations provision that the administration says would restrict its ability to take steps intended to counter global warming and even to study the phenomenon.

"This strange pattern of weather is in keeping with the consequences that were predicted as a result of global warming," Gore said.

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WASHINGTON EDITION / LOS ANGELES TIMES — MONDAY, JUNE 15, 1998 A4

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Delays Chill Effort to Combat Global Warming

■ **Science:** International drive to reduce greenhouse gases slowed by disputes. But developing nations take a second look at financial incentives.

By JAMES GERSTENZANG
TIMES STAFF WRITER

BONN—If global warming is proceeding at an extremely slow pace, consider the tempo of the worldwide effort to reverse it: International negotiators here spent much of the past two weeks arguing about an esoteric—but perhaps aptly termed—matter known as Russian "hot air" and how to define such terms as "deforestation," "reforestation" and "aforestation."

They spun in circles over supplemental methods to reduce emissions of greenhouse gases—mostly carbon dioxide from burning oil and coal—before any have announced the primary steps their nations will take to reduce those gases.

They wrestled with oil-producing nations, because Saudi Arabia raised what a senior U.S. negotiator called "nuisance points" by continuing to seek the promise of international reimbursement if lobal warming agreements cut its l revenue.

In fact, as government negotiators, environmentalists and business representatives—1,200 in all—broke camp Friday, there was a prevailing sense that the international campaign against global warming may be nearly frozen.

The sessions were called to delve into details of how to implement the global warming agreement reached last December by more than 150 nations in Kyoto, Japan, and to pave the way for the next ministerial-level meeting, in Buenos Aires in November.

But such international negotiations rarely move quickly, and leaders of the 26-member U.S. delegation here sought to present an optimistic picture.

In particular, they hope they deflated a controversy over how to count the contribution that vegetation—agriculture and forests—makes in absorbing carbon, the prime culprit in global warming, from the atmosphere. The issue is crucial because the degree to which a nation counteracts its carbon emissions through agricultural and forestry policies may go a long way toward determining whether it is meeting its emissions targets.

Negotiators agreed to hand the matter to an international panel of scientists, which is not expected to report until 2000. But they also agreed that they could address the matter in upcoming meetings financial incentives intended to encourage them to reduce greenhouse gas emissions even as they try to build fledgling industries.

In the past, these nations had largely refused to even discuss this for fear that it would limit their economic development.

The Kyoto Protocol called on the world's major industrialized nations to reduce their emissions of the six main greenhouse gases by an average of 6% over the next 15 years. The United States committed itself to reduce its carbon emissions by 2012 to a level 7% below its 1990 emissions. Such a cut would actually bring the nation about 30% below the level of emission projected if no mitigating steps were taken.

But the sessions here were marked by delays, brought on by divisions in the huge bloc of developing nations and splits in the European Union.

Groused one United Nations official at midweek: "There's no pressure to do anything."

By Friday, another official, Michael Zammit Cutajar, the executive secretary of the U.N. organization overseeing the talks, complained of participants: "They are still exploring positions, putting out markers, protecting themselves before they can engage in a serious negotiation."

The Kyoto meeting, he suggested, was mistakenly viewed as the breakthrough in efforts to control what many scientists believe is a dangerous warming of the global climate. The scientists believe that carbon and other gases, which are given off by industrial processes, transportation and other manifestations of fossil fuel-fired development, trap the earth's reflected heat and act like an invisible thermal blanket insulating the planet.

But the Kyoto session, Zammit Cutajar said, turned out to be "only a plateau on the way to other mountains. We are now at the base of the bigger mountains. Governments are preparing themselves for the next climb. They are not anywhere near the top."

without waiting for the report.

Another significant byproduct of the sessions appeared to be a new willingness among developing nations to at least consider how they might take advantage of

Now that initial targets have been set for emissions reductions by the industrial powerhouses, negotiators are exploring how to reach them. Negotiators are also looking for ways to encourage developing nations to join the process—a politically vital step toward winning the U.S. Senate endorsement of the pact.

Central among the proposals for lowering emissions are "flexible mechanisms." They include programs in which a country or company emitting fewer tons of carbon than its assigned target could sell to another country or company the right to exceed its own target by a specified amount.

That is where Russian "hot air" comes in.

The closing of inefficient Soviet-era factories since the fall of communism already has brought Russia about 30% below its 1990 emissions level and given it and Ukraine the likelihood of having untold millions of tons of carbon available for trading in the international market.

But critics within the international environmental community, and some among official European delegations, fear that the United States, Japan and other nations that find it difficult to meet their targets will buy their way out of making reductions.

"Rather than using its industrial muscle to lead, the United States

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wants to buy paper credits from Russia," said Patrick Green, senior campaigner in energy, nuclear and climate issues for Friends of the Earth in London.

The European Union is seeking to restrict the sale of such carbon rights to the amount saved through deliberate reduction programs, rather than including the amount achieved as a side benefit of economic contractions.

Concern that the United States will rely too heavily on such deals has prompted the EU to press, unsuccessfully so far, for a cap on the extent to which a nation can use such supplemental measures as emissions trading to meet its obligations.

At the same time, the United States is using the possible offer of high-efficiency, energy-saving technology to gain support among developing nations that have been hostile, or at least ambivalent, toward the various trading proposals.

This prompted a split among the developing nations' bloc, which includes China and India, when some grew worried that compliance with voluntary targets, as suggested by Argentina, would bring a flow of investment capital that could leave other nations at an economic disadvantage.

"You're seeing some real power politics, dirtball tactics going on here," said Jennifer Morgan, coordinator of the global warming campaign of a network of U.S. environmental organizations.

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Negotiators agreed to hand the matter to an international panel of scientists, which is not expected to report until 2000. But they also agreed that they could address the matter in upcoming meetings without waiting for the report.

Sunday, June 14, 1998

Inching Forward on Emissions Curbs

By WILLIAM K. STEVENS

BONN, June 13 — Six months ago, in a sleepless, adrenaline-fueled rush of last-minute dealing in Kyoto, Japan, delegates from around the world agreed for the first time to make specific, legally binding reductions in industrialized countries' emissions of heat-trapping gases believed to affect Earth's climate.

Now, in something of a morning-after, what-have-we-done state of mind, negotiators grappling with the details of putting the first cuts into effect are finding the task as difficult as that of hammering out the original accord.

As they made their first formal efforts to flesh out the Kyoto accord in talks here over the last two weeks, it became clear that the agreement remains largely a work in progress. Thanks to the same clash of interests that nearly scuttled the negotiations in Kyoto, the work may not be finished for quite some time.

Before the Kyoto meeting took place, said Michael Zammit Cutajar of Malta, who heads the United Nations climate secretariat, the initial agreement was seen as a kind of summit to be reached. But "when we got to Kyoto, we saw it wasn't a peak at all but a plateau." With a new mountain ahead, he added, "we are not anywhere near the top."

As the next phase of the struggle got under way, developing countries renewed their insistence against submitting to specific, mandatory emissions caps until wealthier nations achieve reductions. That left open the question of whether the poorer nations can be drawn more fully into the reduction program anytime soon. If not, American politicians say, the Kyoto Protocol, as the agreement is called, cannot be approved by the United States Senate.

The talks here set the stage for the next high-level conference of the more than 150 countries that signed the 1992 treaty under which the Kyoto Protocol was negotiated. The conference is scheduled for Buenos Aires in November. Its main objective will be to make as much progress on the details of the protocol as possible.

The Kyoto Protocol requires industrialized countries to reduce emissions of carbon dioxide and five other heat-trapping atmospheric gases by an annual average of about 5 percent below 1990 levels for the period 2008 through 2012. Some countries are to cut their emissions by more than that, some less. The United States' reduction target is 7 percent. Carbon dioxide is produced by the burning of fossil fuels like coal and oil.

The Kyoto targets are widely viewed as a first step, since overall concentrations of greenhouse gases in the atmosphere will continue to rise if deeper cuts are not eventually made. Without any reductions at all, scientific advisers to the delegates here say, the Earth's average surface temperature will rise by 2 to 6 degrees Fahrenheit, with a best estimate of 3.5 degrees, by 2100.

A warming of this magnitude, the scientists say, would cause the sea level to rise and inundate many coastal areas. It would also worsen droughts and rainstorms, cause more heat waves and floods, increase precipitation generally and shift climatic and agricultural zones.

For the countries here, the immediate challenge is to enable the first steps included in the Kyoto accord to be taken. That involves agreeing on how new mechanisms for cutting emissions will work in practice.

One, which negotiators have named the clean-development mechanism, is a system for channeling and certifying rich countries' investment in emissions-reducing projects in poor countries — power plants that emit less carbon dioxide, for instance. The two nations involved would share the credit for emissions reductions achieved, and part of the proceeds would help the developing countries adapt to climatic change.

Another mechanism is called emissions trading. In this system, much favored by the United States, a country or private company could achieve its reductions target partly by buying reductions from a country or company with excess cuts. Proponents say this arrangement would work globally, and at lowest cost.

These two mechanisms are the operational heart of the protocol, and both came under criticism in the talks just concluded. Developing countries balked, resisting pressure to move rapidly until questions about the mechanisms are answered.

What is required now is "to learn and understand," said Vijai Sharma, the chief delegate from India, who said that much had been unclear in the chaos of Kyoto. Answering the questions and then formulating rules for operating the mechanisms "is going to take long," he said.

One reason for the developing countries' caution is that they are likely, eventually, to come under the same rules as the rich nations. And many delegates from the poorer countries say privately that while the clean-development mechanism holds apparent benefits for them, it is unclear what the costs might be.

On emissions trading, a split developed between the European Union and much of the rest of the industrialized world, including the United States, over the critical issue of how much of a given country's reduction it should be allowed to achieve by purchasing emissions rights from another country.

The Europeans insisted that some cap be placed on the proportion of a country's reduction that can be achieved through trading.

The United States and other countries insist just as strongly that trading should be unrestricted. Otherwise, they say, the market mechanism will not function properly and the cost of reductions will rise. The Americans say it is simply not yet known how much emissions can be reduced by domestic action.

New Policy Center Seeks to Steer the Debate on Climate Change

By JOHN H. CUSHMAN Jr.

WASHINGTON, May 7 — With millions of dollars from a charitable foundation known for its environmentalism and with endorsements from some of the nation's biggest corporations, a former State Department official who helped negotiate the climate-change treaty is mounting a new campaign for action to head off global warming.

Eileen Claussen, who as Deputy Assistant Secretary of State for environmental affairs helped develop the climate protocol approved at an international conference last December in Kyoto, Japan, said today that she would run a policy center that would seek to lend "a credible voice" to the debate on global warming.

Pew Charitable Trusts gave Ms. Claussen a $5 million annual grant for the project. Already, treaty opponents financed by industry and treaty supporters from the environmental movement are spending millions of dollars each year in a debate over climate change that is sometimes fraught with exaggeration and even outright distortion of the science and economics of the issue.

"It's a big grant, it's a big bet and it's a big problem," said Rebecca Rimel, Pew's president. "There is probably no bigger issue facing the country and the globe, and the time to act is now, because the longer we procrastinate, the bigger the problem grows."

Besides the Pew financing, about half of which will be spent on advertising, Ms. Claussen won endorsements from a group of large companies with annual revenues in the hundreds of billions of dollars. Their support is meant to signal divisions within big business over the effect of climate-control measures that opponents say could wreck the economy by forcing deep cuts in the use of fossil fuels.

Next week, the new Pew Center on Climate Change will publish an advertisement festooned with the corporate logos of its supporting companies, which include the aerospace giants Boeing and Lockheed-Martin, the Japanese auto maker Toyota, the appliance manufacturers Maytag and Whirlpool, the diversified conglomerates United Technologies and 3M, and several big energy companies: British Petroleum, Sun Oil, American Electric Power, U.S. Generating Company and Enron.

The companies are not contributing financially to the new center, but they are promising to seek ways to reduce their own emissions of heat-trapping gases like carbon dioxide and to invest in new, more efficient products and technologies.

The advertisement says that these companies "accept the views of most scientists that enough is known about the science and environmental impacts of climate change for us to take actions to address its consequences."

A major tenet of some industry groups fighting the Kyoto treaty is that too little scientific evidence has been accumulated to justify the treaty's call for deep reductions in emissions of gases that trap the sun's heat like in a greenhouse. Automobile and energy companies have been among the treaty's biggest opponents.

Ms. Claussen's group does not explicitly endorse the Kyoto pact, but sees it as "a first step." It has called for more work to put into effect the emissions trading schemes and participation by developing countries that the treaty's negotiators plan to work out later this year. The Clinton Administration has said there must be progress on these issues before it agrees to sign the treaty.

THE FRESH AIR FUND: 1877-1998

New York Times
SUNDAY, APRIL 26, 1998

INDUSTRIAL GROUP PLANS TO BATTLE CLIMATE TREATY

AIMS TO RECRUIT SKEPTICS

Draft Proposal Seeks to Depict Global Warming Theory as a Case of Bad Science

By JOHN H. CUSHMAN Jr.

WASHINGTON, April 25 — Industry opponents of a treaty to fight global warming have drafted an ambitious proposal to spend millions of dollars to convince the public that the environmental accord is based on shaky science.

Among their ideas is a campaign to recruit a cadre of scientists who share the industry's views of climate science and to train them in public relations so they can help convince journalists, politicians and the public that the risk of global warming is too uncertain to justify controls on greenhouse gases like carbon dioxide that trap the sun's heat near Earth.

An informal group of people working for big oil companies, trade associations and conservative policy research organizations that oppose the treaty have been meeting recently at the Washington office of the American Petroleum Institute to put the plan together.

Joe Walker, a public relations representative of the petroleum institute who is leading the project, said in an interview that the plan had been under consideration for about two months and was "very, very tentative." Mr. Walker said no industry executives had yet been approached to pay for it.

But an eight-page memorandum that he wrote shows in detail how some industry lobbyists are going about opposing the climate treaty.

It is a daunting public relations task. Whenever the treaty's advocates, including the Clinton Administration, discuss global warming, they present the science as essentially settled and unchallengeable, and they compare dissenting scientists to discredited apologists for the tobacco companies. That view has become widely accepted among reporters and the public.

Although mainstream scientists do identify considerable uncertainties in their climate predictions, which are based on computer models, they are increasingly confident that global warming is a serious problem and often say that the uncertainties do not justify inaction.

Based on the latest science, most of the world's nations agreed in Rio de Janeiro in 1992 that industrial

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Industrial Group Plans to Fight Climate Treaty

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nations should cut emissions of greenhouse gases, and the treaty was modified last year to require further reductions in emissions to levels well below those of 1990, over the next 10 to 15 years. But the United States Senate has not yet agreed to that treaty provision, which could require deep reductions in American consumption of fossil fuels.

Documents describing the proposal to undermine the mainstream view were given to The New York Times by the National Environmental Trust, whose work in support of the global-warming treaty is financed by philanthropic organizations, including the Pew Charitable Trusts, the biggest of the nation's pro-environment grant makers.

Phil Clapp, the president of the environmental trust, said he obtained the papers from an industry official. Exposing the plan at this stage, Mr. Clapp said, would probably ruin the effort to raise money to carry out the plan.

Industry representatives confirmed that the documents were authentic, but emphasized that the plans had not been formally approved by participating organizations. The document listed representatives of the Exxon Corporation, the Chevron Corporation and the Southern Company as being involved. Representatives of Chevron and Southern acknowledged attending meetings on the project; the Exxon representative could not be reached for comment.

The draft plan calls for recruiting scientists to argue against the Administration, and suggests that they include "individuals who do not have a long history of visibility and/or participation in the climate change debate."

But among the plan's advocates are groups already linked to the best-known critics of global-warming science.

They include the Science and Environment Policy Project, founded by Fred Singer, a physicist noted for opposing the mainstream view of climate science. Frederick Seitz, another prominent skeptic on global warming, is involved with two other groups mentioned in the plan: the George C. Marshall Institute, where Dr. Seitz is chairman, and the Advancement of Sound Science Coalition, where he is on the science advisory board.

On Monday, the National Academy of Sciences disassociated itself from the most recent effort to drum up support among skeptical scientists. That effort came in the form of a statement and petition on global warming circulated by Dr. Seitz, a physicist who was president of the academy in the 1960's.

Critics of the 'greenhouse effect' would be backed up with $5 million.

The petition, attacking the scientific conclusions underlying the treaty on climate change, was accompanied by an article that was formatted to resemble one that might have been published in the academy's prestigious peer-reviewed journal. It was not.

The draft plan, recently discussed at the oil industry offices, calls for giving such dissenters on climate science "the logistical and moral support they have been lacking."

It also calls for spending $5 million over two years to "maximize the impact of scientific views consistent with ours on Congress, the media and other key audiences."

It would measure progress by counting, among other things, the percentage of news articles that raise questions about climate science and the number of radio talk show appearances by scientists questioning the prevailing views.

The document says that industry's polling, conducted by Charlton Research, has found that while Americans see climate change as a serious threat, "public opinion is open to change on climate science."

Supporters of the plan want to raise money quickly to spend much of it between now and the November negotiating session in Buenos Aires, where important details of the international treaty are to be decided.

A proposed media-relations budget of $600,000, not counting any money for advertising, would be directed at science writers, editors, columnists and television network correspondents, using as many as 20 "respected climate scientists" recruited expressly "to inject credible science and scientific accountability into the global climate debate, thereby raising questions about and undercutting the 'prevailing scientific wisdom.' "

Among the tasks, the petroleum institute's memorandum said, would be to "identify, recruit and train a team of five independent scientists to participate in media outreach."

What the industry group wanted to provide, the memorandum said, was "a one-stop resource on climate science for members of Congress, the media, industry and all others concerned."

The industry group said it wanted to develop "a sound scientific alternative" to the Intergovernmental Panel on Climate Change, a large group of scientists advising the United Nations that has published the most authoritative scientific assessments of global warming. That panel has predicted that the next century will bring widespread climatic disruptions if actions are not taken to reverse the accumulation of greenhouse gases in the atmosphere.

The draft plan suggests that despite industry efforts to convince the public that the climate treaty would be costly to carry out and unfair to the United States, the treaty remains popular partly because environmentalists are winning the debate on the science.

"Indeed, the public has been highly receptive to the Clinton Administration's plans," the memorandum said. "There has been little, if any, public resistance or pressure applied to Congress to reject the treaty, except by those 'inside the Beltway' with vested interests."

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White House Predicts Low Cost for Pact On Warming

By JOBY WARRICK
Washington Post Staff Writer

If implemented, the international global warming treaty the United States signed in Kyoto, Japan, could add $70 to $110 to the average American household's annual energy bill over the next 15 years, according to a long-awaited White House economic analysis due to be released today.

In the first official assessment of the cost of December's historic global warming treaty, the Clinton administration forecasts that the agreement would result in, at most, "modest" price hikes for gasoline and other fuels as America's share of the international tab for cutting greenhouse gas emissions. And those increases could be offset completely by lower electricity bills if Congress passes laws to allow utility companies to compete, administration officials said.

But some economists were skeptical, and others who basically support the White House estimates point out that they are based on several optimistic assumptions, including cooperation by developing countries and international acceptance of market-based trading mechanisms that would drastically lower the cost of cutting emissions.

"It's true that the impact can be relatively small—if this is done in the smartest possible way," said Robert Stavins, an economist and professor of public policy at Harvard University's John F. Kennedy School of Government. "But if we don't do it that way it will cost 10 times what the administration is saying."

At the conclusion of the 10-day Kyoto summit, 159 nations agreed to the first legally binding international protocol to fight global warming. The treaty calls for reducing "greenhouse gas" emissions, which are produced mostly from burning fossil fuels such as oil, by an average of 5 percent below what they were in 1990.

The accord has been strongly criticized by some major industries, members of Congress and others who fear it could cripple the economy and require the United States to make greater sacrifices than the rest of the world. As a result, the Clinton administration has said it would not even submit the agreement to the Senate for approval until it won participation by developing countries and took other steps to build support, including releasing an accurate assessment of the treaty's economic impact.

The new economic predictions are scheduled to be unveiled today by Janet Yellen, chairman of the White House Council of Economic Advisers, in testimony before the House Commerce Committee. Based on a months-long study using internationally respected economic-forecasting models, Yellen will project a net increase in the national annual energy costs of $7 billion to $12 billion by 2012, the deadline set in Kyoto for industrialized countries to achieve sharp cuts in emissions.

For American consumers, that translates to about a 4- to 6-cent per gallon hike at the gasoline pump, as well as comparable increases of 3 percent to 5 percent for electricity, fuel oil and natural gas, according to White House sources familiar with the analysis.

The estimates were described as "very conservative" by administration sources, who said that projected increase could easily turn into a wash or even a modest drop in energy prices. For example, if the administration's plans for restructuring the utility industry are approved by Congress, utility bills could fall by an average $90 per household by 2012, according to White House estimates.

Any increase in energy prices would amount to a small premium for what administration officials called an "insurance policy" against a potentially serious environmental threat: Many scientists say even greater economic disruption is likely if levels of heat-trapping greenhouse gases continue to rise. The resulting increased temperatures could cause widespread flooding, crop failures and other devastating effects, they say.

"The bottom line is, we face potentially catastrophic costs if we do nothing," said a White House official who spoke on the condition of anonymity. "But if we do it right, we can insure against those for a very modest premium."

But the official acknowledged "enormous uncertainties" in predicting future economic impacts, and noted that several key assumptions are based on the willingness of other countries to accept a U.S. proposal to cooperate with the West in achieving cuts in greenhouse gases—a prospect that appeared highly uncertain during the Kyoto talks.

For example, the White House analysis assumes that industrial countries will be able to trade emissions credits under an international framework that allows industries to find the cheapest ways to cut emissions of carbon dioxide and other gases. Such a mechanism—which Kyoto negotiators agreed to in principle—could slash the cost of compliance by up to 50 percent.

More than half of the remaining costs would be eliminated if a similar trading scheme is established with "key" developing countries, particularly China, India and Brazil. But those countries flatly rejected the idea during the tumultuous negotiations in Japan.

Some economists who have been critical of the Kyoto accord disputed the White House projections as wildly optimistic.

"It strikes me that the increase in prices are impossibly low," said W. David Montgomery, vice president of Charles River Associates, an economic consulting firm. He said the administration's assessment "shows a great deal of optimism on what it can accomplish in negotiations" with developing countries over the next few years.

FOR MORE INFORMATION

For more information about global warming and the Kyoto pact, click on the above symbol on the front page of the Post's Web site at www.washingtonpost.com

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TECHNOLOGY COOPERATION AGREEMENT PILOT PROJECT

Development-Friendly Greenhouse Gas Reduction

The Technology Cooperation Agreement Pilot Project (TCAPP) was launched in August 1997 to foster climate change technology cooperation in Brazil, China, Kazakhstan, Mexico, and the Philippines. The project is supported by the U.S. Agency for International Development (USAID), the U.S. Environmental Protection Agency (USEPA), and the U.S. Department of Energy (USDOE) in cooperation with the U.S. Country Studies Program (USCSP) and the U.S. Initiative on Joint Implementation (USIJI).

TCAPP is a voluntary partnership to advance implementation of clean energy technologies. In-country organizations participate only if they believe technology cooperation can bring results, and countries are not required to make formal commitments. The National Renewable Energy Laboratory, together with other cooperators, assists country teams in developing and implementing technology cooperation frameworks and in engaging private sector organizations and international donor agencies. These technology cooperation frameworks provide a solid foundation for developing technology cooperation agreements that may be useful multilaterally.

Goals

- Foster private investments in energy technologies that reduce greenhouse gas emissions and produce economic benefits for the country.
- Engage in-country and international donor support for actions to build sustainable markets for clean energy technologies.
- Establish technology cooperation agreements as an organizing structure for coupling in-country, donor, and private-sector climate change mitigation actions.

Activities

The Technology Cooperation Agreement Pilot Project includes three major activities:

1. *In-country teams set the direction by preparing technology cooperation frameworks.* These frameworks identify priorities for advancing implementation of energy technologies that will contribute to development objectives and reduce greenhouse gas emissions. These frameworks define barriers to private investment and identify opportunities for coupling actions by domestic agencies, international donors, and private sector investors to achieve sustained investment in the technologies.
2. *Private firms and business/investment organizations assist the country teams and international donor agencies with design and implementation of actions to mobilize investment in the priority technologies.* Two business-oriented organizations, the Business Council for Sustainable Energy and the Environmental Enterprises Assistance Fund, are partners in TCAPP. They engage private firms from developed and developing countries in the effort and help country teams implement a strategy to attract private investment.
3. *International donors assist country teams in implementing actions to remove market barriers.* These actions include policy and institutional reforms, capacity-building, educational and outreach activities, and business development initiatives.

TCAPP Implementation Schedule

November 1997	International workshop on the Technology Cooperation Agreement Pilot Project (Golden, CO)
December 1997	COP-3 side-event to discuss technology cooperation agreements
April 1998	Presentation of TCAPP at OECD-IEA Climate Forum
September, 1998	Countries complete draft frameworks
September 24, 1998	Meeting with private sector businesses to present frameworks and review opportunities for business participation (Washington, DC)
October 9, 1998	Meeting with international donor agencies to present frameworks and review opportunities for donor participation (Washington, DC)
December 1998	Immediate market opportunities identified for each country
June 1999	Country teams and private sector organizations begin implementing actions to attract private investment
September 1999	International donor agency support secured for initial actions to remove barriers in each country

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EXPECTATIONS IN BUENOS AIRES

[The following is the text of a USIA cable sent on October 20, 1998.]

Summary

The Fourth Session of the Conference of Parties (COP-4) to the United Nations Framework Convention on Climate Change (UNFCCC) will take place in Buenos Aires, Argentina, November 2-13, 1998. This meeting will work out the details of the concepts agreed to under the Kyoto Protocol of the COP-3 meeting in Kyoto in December 1997. The Protocol, designed to reduce greenhouse gas emissions by harnessing the forces of the global marketplace, sets emissions targets agreed to by developed countries, timetables to meet these targets, and flexible, market-based mechanisms for meeting those targets. The Clinton Administration considers climate change the primary environmental issue of the twenty-first century and has set the objective of signing the Protocol by March of 1999. However, the Administration will not submit the Protocol to the Senate for ratification until it secures the meaningful participation of key developing countries.

There are several points of contention that threaten the success of the conference, some technical, some philosophical, and the U.S. is trying to work out these differences in bilateral and multilateral for a. This process will continue through the Conference, so movement on the issues will be fluid. Differences of opinion fall not only along the north/south fault line; G-77 vs. the developed countries; but also exist between the U.S. and its friends, such as the EU. Addressing climate change is a long-term endeavor and Buenos Aires is just one more step in the process.

The Administration's Position

- Solving the serious problem of climate change must be a global effort. Developing countries must become meaningful participants in addressing the problem of greenhouse gas emissions.

- Flexible, market-based mechanisms -- emissions trading, joint implementation and the clean development mechanism (CDM) – can effectively address environmental protection as well as economic development and growth, thereby contributing to sustainable development. The flexibility of the Kyoto mechanisms encourages compliance with emissions targets, and makes achieving them more cost-effective.

- Emissions trading has the potential to be the Kyoto Protocol's most powerful engine for reducing emissions, but only if the rules are clear and sensible and it is not burdened with unnecessary controls, or caps.

- A key achievement that could come out of Buenos Aires is the development of work plans to further elaborate the flexibility mechanisms. These work plans are instrumental in ensuring cost-effective emissions reductions and moving forward on fulfilling the Kyoto Protocol.

- Other key actors must become engaged in the process, including businesses and NGOs.

Challenges to the U.S. Position

While domestic opinion polling indicates that most Americans believe the effects of global warming are already being felt and pose a long-term threat, they are more inclined than publics in 38 countries surveyed to believe that major actions to reduce human impacts on climate can safely be deferred. Certain industries – energy among them – labor, agriculture, and Members of Congress are concerned about the economic costs of actions to reduce emissions, and the effects on employment. There is the perception that the U.S. and other developed countries are being unfairly burdened with emissions reduction targets and that the developing countries must become more involved.

Overseas opinion polling also indicates foreign public sensitivity to climate change and a desire to address it, even at some economic cost. But there are disagreements: the U.S. favors the market approach to emissions reduction, while the EU prefers a regulatory approach, and a limitation on the extent to which a country can rely on market mechanisms to achieve its emissions targets – such as quantitative caps on emissions trading. Many foreign publics, as well as some Americans, perceive our position on the market approach as an attempt to avoid domestic emissions reductions. U.S. experience in SO2 – acid rain – emissions trading and in adopting cleaner technologies have turned out to be highly successful examples of market mechanisms at work, addressing environmental problems in an economic manner.

Likely U.S. Themes

- A successful solution to climate change will require the participation of all nations and of all sectors, public and private.

- Climate change is a long-term problem requiring a sustained commitment.

- Market mechanisms provide the most cost-effective means for addressing environmental issues while ensuring sustainable economic development and growth.

- The U.S. is seriously committed to cleaning up its own environment, as demonstrated by the Administration's climate change initiative.

- The structure of the Kyoto Protocol, especially the flexibility mechanisms, make it more realistic that emissions targets can be reached within the agreed time frame.

- There are many U.S. success stories in emissions trading -- the adoption of clean technologies, and other methods of environmental protection – and these have proved profitable as well as environmentally friendly.

- The clean development mechanism (CDM) is the key flexibility mechanism for engaging developing countries; it provides the potential to help in the transfer of technology, increased investment and sustainable development.

- Through highlighting the need to reassess national economic policies and structures, the international financial crisis offers opportunities for affected countries to devise environmentally sound, as well as economically beneficial, solutions by employing the flexibility mechanisms provided by the Kyoto Protocol.

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Divider Title: **B**

Non-Paper
Key Issues on Climate Change

This document discusses a number of the key issues regarding the Kyoto Protocol to the UN Framework Convention on Climate Change – emissions trading, joint implementation, the Clean Development Mechanism, carbon sinks, compliance and developing country participation.

Emissions Trading

--The key principles underlying U.S. support for emissions trading are environmental effectiveness and economic efficiency: emissions trading will allow those Parties that assumed binding emissions targets to reach the Kyoto Protocol's environmental goals at the lowest cost.

--We believe that a credible emissions trading system depends on strong national measurement, reporting and compliance regimes, and that trading rules can be used to strengthen incentives for such regimes.

--The U.S. favors a simple set of rules and guidelines for trading that (1) promote cost-effective achievement of the agreed Kyoto targets, (2) promote compliance with the Protocol's requirements for accurate measurement, complete reporting, and target attainment, and (3) address national compliance incentives and risk issues.

--More specifically, the rules should address the following elements:

o What can be traded: Parties can transfer or acquire any part of their assigned amounts (their targets). These could be expressed as tons of carbon dioxide equivalent, meaning that all gases can be traded on the basis of their global warming potentials (GWPs).

o Who can trade: In addition to governments, we believe that the private sector can participate in trading.

o Who is responsible: The international trading system should establish provisions for risk - placed on the seller, buyer or some combination. Countries must work together to solve this complex issue.

o When to trade: Parties must meet certain conditions for monitoring, reporting, and registration systems as described below. Before the start of official trading, contracts (involving governments and/or the private sector) for future delivery of assigned amounts will likely take place. Parties cannot undertake formal trading of assigned amounts until the Protocol comes into force and until they have ratified it.

o Conditions for trading: In order to strengthen incentives for compliance with national budgets, and to build confidence in trading, each participating Party must have a domestic emissions measurement and reporting system that follows agreed guidelines for emissions inventories and reporting, and a national registry system to assure that international transfers are legally authorized (i.e., that the government agency or firm seeking to trade has the legal right to them) and to record transfers and acquisitions and report them to the Secretariat. Parties should not be allowed to participate in trading if they have not established or are not implementing these systems (which could take various forms). We suggest undertaking work to develop national measurement guidelines and supplementary reporting guidelines (building on existing inventory methods and reporting guidelines as required by Articles 5 and 7), for adoption at a future COP.

o Limitations on trading: Apart from the preconditions regarding measurement and registration systems and reporting, the U.S. supports only one additional limitation on Parties' rights to trade: a Party should not be able to sell any further tons once it has emitted its allowed amount during the commitment period (i.e., there should be no "deficit trading"). We believe strongly that there is no basis in the Protocol for establishing, in a decision of the Parties, percentage limits on how much of a Party's budget may be sold, or for establishing where or how Parties must meet their commitments.

Joint Implementation

We believe that joint implementation will also be important to enabling developed country Parties to meet their targets cost-effectively. We note that the Protocol does not require any additional rules in order for joint implementation to go forward, but anticipate that approaches to "additionality" under the CDM will inform discussions of this issue with respect to joint implementation.

Clean Development Mechanism (CDM)

--Given the opportunity provided in the Kyoto Protocol to begin CDM activities in 2000, developing the operational rules and modalities is urgent. The U.S. supports action to formulate agreed rules, and to allow implementation of CDM activities to proceed as soon as possible.

--We believe that it would be premature to consider limiting the extent to which emission reductions resulting from CDM project activities may count against targets as long as these activities result from legitimate (i.e., "additional") projects; we must encourage the private sector to participate in CDM projects, and not chill their interest with administrative restrictions and bureaucracy.

--Sink activities, including sustainable forest management, should be allowed and encouraged under the CDM (we note, however, that this will necessitate the development of better operational guidelines to allow a determination of "additionality" for sink projects).

--The "share of the proceeds" from project activities, as provided for in Article 12 of the Protocol, should be defined in terms of emissions and be based on the value of the emissions reductions achieved by the specific project activities – not the value of the underlying project itself; the "share" should be small so as not to dampen interest in undertaking CDM activities.

-- We must avoid potential conflicts of interest (for example, CDM "operating entities" should not also play a role in disbursing CDM adaptation funds), and in administering the adaptation portion of the CDM (i.e., funds to assist particularly vulnerable countries in their efforts to adapt to the adverse impacts of climate change).

--The U.S. supports efforts to develop project guidelines/criteria that promote real, measurable and long-term benefits, and include mechanisms for auditing and verification. To facilitate CDM operations and lower transaction costs, we urge the development of rules that will promote objective decisions on project acceptance (for example, by ensuring acceptance of all projects within a particular sector that meet a certain standard of "additionality") rather than proceeding to measure "additionality" on a case-by-case basis. The Executive Board could have a role in the development of such guidelines/criteria.

--We believe that lessons learned in the current pilot phase of "Activities Implemented Jointly" will be instructive and should be considered.

Sinks

--The U.S. seeks a coherent approach to the treatment of sinks under the Kyoto Protocol that is both environmentally and scientifically sound. Consistent with our position leading up to Kyoto, we support the addition of sink activities related to sustainable forest management.

--We endorse the decision reached in Bonn by the Subsidiary Body on Scientific and Technological Advice (SBSTA) to ask the Intergovernmental Panel on Climate Change (IPCC) to undertake a Special Report to examine various options for implementing the three agreed activities in Article 3.3 (i.e., reforestation, afforestation, and deforestation) and to provide the Parties with scientific and technical advice that will be helpful in taking decisions under Article 3.4 of the Protocol on additional categories of sink activities.

-- In addition to this rigorous scientific review of sinks by the IPCC Special Report, we also endorse the decision to hold a series of workshops on sinks activities under Articles 3.3 and 3.4. A first workshop, dealing with Article 3.3, was held in September and its results will be reported at COP-4. The Parties plan for a second workshop in early 1999 to examine both Articles 3.3 and 3.4 and help inform discussions at COP-5.

-- We believe this approach will satisfy the need for rigorous scientific examination of sinks activities by the IPCC, while also fostering continued discussion of the issues in the near term as we await the results of the IPCC Special Report.

--With regard to sinks and their relationship to the CDM, we believe that any restrictions applicable to sink projects should be pursued through the CDM rules (such as through the "additionality" requirement). (Others have proposed linking the approach under Article 3.3 to the approach taken under Article 12; we believe that this will unnecessarily restrict sink projects, and that any concerns about such projects can be addressed in the context of the CDM's "additionality" requirement.)

Compliance

-- We believe it would be useful for COP-4 to begin consideration of how to implement Article 18 of the Protocol dealing with compliance.

-- To the extent compliance issues relate particularly to trading, JI, or the CDM, we should pursue them in the rules related to those mechanisms.

Developing Countries

--We are aware that many developing countries share our concerns about the global threat posed by climate change, and that many developing countries have taken and are taking important steps to address this global problem.

-- The Framework Convention was adopted in 1992, and established our common but differentiated responsibilities and capabilities to address climate change. We must take into account this approach in the context of a changing world in order to promote a more effective global response to climate change.

--For this reason, we were extremely disappointed that the Parties in Kyoto were unable to establish a specific process to enable interested developing countries voluntarily to adopt binding greenhouse gas emissions growth targets and to participate in international emissions trading.

--In the run-up to the Bonn meetings, we underscored the importance of developing countries taking on targets and the opportunities for developing countries in doing so, especially the opportunity to participate in international emissions trading agreed in the Kyoto Protocol. We also stressed the need to promote a more meaningful global response to the threat of climate change.

--Many non-Annex I Parties to the Convention have per capita income levels comparable to or even higher than some Kyoto Protocol Annex B countries, such as:

--Bulgaria
--Poland
--Hungary
--Greece
--Portugal.

The above countries have targets - and countries in comparable economic situations should also assume targets. These may be growth targets, recognizing the different requirements of each country. Also, countries with significant greenhouse gas emissions should have targets.

--We continue to believe that such emissions growth targets for advanced developing countries will facilitate their efforts to achieve sustainable development by enabling them, through international emissions trading, to take advantage of anticipated substantial new resources.

--We note that, even under the Protocol as agreed in Kyoto, advanced developing countries may voluntarily adopt binding emissions growth targets by proposing to amend Annex B, and by taking on the responsibilities of industrialized countries through the notification procedure contained in Article 4.2(g) of the Convention.

--Nevertheless, we believe it worthwhile to consider a simpler approach to this issue, and will be interested in discussing various possibilities with other Parties during the course of the Buenos Aires meetings.

--At the same time, we are mindful of the significant differences among countries both with respect to their national circumstances and their level of development.

--We thus acknowledge that promoting a more meaningful global response to climate change must take account of these differences, and that no "one-size-fits-all" approach will be realistic or appropriate.

Other countries can work, nevertheless, to address the problem of global climate change in various ways, including by:

- participating actively in the work of the Convention and in the work preparing for entry into force of the Kyoto Protocol;

- taking steps to facilitate technology transfer/diffusion and investment and to adopt low and no emitting technologies;

- undertaking to adopt, reform and/or implement domestic policies and developing specific national action plans to address climate change; and

- promoting capacity building and public information and education efforts related to global climate change.

--We look forward to discussing these issues at greater length in Buenos Aires and other venues as opportunities arise.

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5 October 1998

ENGLISH ONLY

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

CONFERENCE OF THE PARTIES *
Fourth session
Buenos Aires, 2-13 November 1998
Items 4 (f) and 5 (a) (ii)-(iv) of the provisional agenda

MATTERS RELATED TO DECISION 1/CP.3 PARAGRAPH 5

Article 6 of the Kyoto Protocol
Article 12 of the Kyoto Protocol (clean development mechanism)
Article 17 of the Kyoto Protocol (international emissions trading)

ACTIVITIES IMPLEMENTED JOINTLY

Compilation of submissions by Parties

1. At their eighth sessions, the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) "invited Parties to submit views on the mechanisms referred to in decision 1/CP.3, paragraph 5 (b), (c) and (e)" (see FCCC/SBSTA/1998/6, para. 63 (e) and FCCC/SBI/1998/6, para. 49 (e)). Some Parties also submitted views on the pilot phase of activities implemented jointly.

2. In accordance with the procedure for miscellaneous documents, the submissions ** received are attached and are reproduced in the language in which they were received and without formal editing.

3. Any further submissions received will be issued in an addendum to this document, to be made available at the fourth Conference of the Parties.

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* Including the ninth sessions of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation.

** In order to make these submissions available on electronic systems, including the World Wide Web, some of these contributions have been electronically scanned and/or retyped. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

FCCC/CP/1998/MISC.7

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CONTENTS

CONTENTS

PAPER NO. 1: AUSTRIA

(on behalf of the European Community and its member States
and Bulgaria, Croatia, Czech Republic, Estonia, Hungary,
Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Switzerland)

NON-PAPER ON THE CLEAN DEVELOPMENT MECHANISM (CDM)

Decision 1/CP.3 sets one specific task for CoP 4 in relation to the CDM, which is to consider the implications of early crediting. This is important, but should be seen in the wider context of making the CDM truly effective and operational in promoting long term reductions of greenhouse gas emissions and sustainable development. Therefore, modalities and procedures should be established as soon as possible, be developed in parallel and be consistent for all flexible mechanisms. In this context, the principle of supplementarity as described in the Non-papers on emissions trading (FCCC/SB/1998/MISC.1/Add.3/Rev.1) and Joint Implementation (FCCC/SB/1998/MISC.1/Add.6) is also relevant for the CDM.

This paper sets out the preliminary views of the European Community, Austria, Germany, Finland, Portugal, France, Sweden, Belgium, Spain, Denmark, Greece, Italy, Ireland, The Netherlands, Luxembourg, United Kingdom and Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Switzerland on these modalities, procedures and guidance.

The European Community, Austria, Germany, Finland, Portugal, France, Sweden, Belgium, Spain, Denmark, Greece, Italy, Ireland, The Netherlands, Luxembourg, United Kingdom and Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Switzerland are looking forward to hear other Parties' views, and especially those of non-Annex I Parties, on these issues and expect a fruitful dialogue. This paper includes some elements that can already be presented as potential principles, modalities and procedures and others which are also necessary for an environmentally effective and efficient CDM but have to be further developed.

The European Community, Austria, Germany, Finland, Portugal, France, Sweden, Belgium, Spain, Denmark, Greece, Italy, Ireland, The Netherlands, Luxembourg, United Kingdom and Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Switzerland propose that COP 4 should agree on key principles and should agree terms of reference and a timetable for further work by the COP, the Subsidiary Bodies and the UNFCCC Secretariat.

I. <u>Principles and eligibility</u>

1. The operation of the CDM should be guided by the following principles:

a) The CDM shall assist developing countries in achieving sustainable development and in contributing to the ultimate objective of the Convention and shall assist

Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments.

b) In accordance with Art. 12.3 (b) only a part of emission limitation and reduction commitments under Art. 3 can be met through certified emission reductions accruing from CDM projects. This provision is necessary because emission reductions achieved under the CDM lead to an expansion of the overall assigned amount of Annex I Parties. The part shall be determined in a way which ensures that Annex I Parties overall still achieve a significant reduction in their emissions domestically.

c) CDM project investment should be distinct from and not compete with ODA and GEF funding.

d) The CDM should work in an effective, efficient, transparent, accessible, non-discriminatory and accountable manner and should not lead to distortion of competition.

e) The CDM should encourage investment, in particular private sector investment in emission reductions in non-Annex I countries and become an incentive for capacity building, as well as development and transfer of environmentally sound technologies and practices.

f) Further work on the CDM should:

- be carried out in parallel and be consistent with work on JI and emissions trading
- take full account of work and experience of relevant bodies, such as the IPCC, the UNFCCC Secretariat, the GEF and its Implementing Agencies, and of the experience gained under the AIJ pilot phase.

2. Project Eligibility

a) CDM projects should be consistent with the sustainable development needs and priorities of the host country.

b) CDM projects shall provide emission reductions that are additional to any that would otherwise occur (Art. 12.5). CDM projects should lead to real, measurable and long-term benefits related to the mitigation of climate change while minimizing adverse environmental, social, public health and economic effects. Therefore the CoP needs to decide on criteria for certification. These need to include project baselines against which environmental benefits can be accurately accounted or estimated in order to assess additionality. Further studies are needed on different options for determining baselines (e.g. whether baselines should be standardized for project categories and/or whether adequate technologies could provide default baselines and/or whether baselines should be developed on a case by case basis.)

c) Article 12 does not provide for projects for the enhancement of removals by sinks to assist Annex I Parties in achieving compliance with their commitments under Article 3, although the CoP/MoP could decide otherwise. There are considerable issues of complexity involved in the inclusion of sinks such as links with biodiversity, forest and desertification issues, consistency with sustainable development and the verification and certification of reductions from sequestration projects. The IPCC Special Report is expected to contribute to consideration of these issues.

d) CoP 4 should agree on terms of reference for SBSTA and SBI to develop modalities and procedures on CDM project criteria and operational modalities for adoption by CoP/moP1. These should be based on the above principles and criteria and be consistent with the framework to be developed for other flexible mechanisms.

3. Participation of Parties

a) Participation is voluntary. Each CDM project should be approved by the Parties involved (Art. 12.5 (a)).

b) It is the aim of the European Community, Austria, Germany, Finland, Portugal, France, Sweden, Belgium, Spain, Denmark, Greece, Italy, Ireland, The Netherlands, Luxembourg, United Kingdom and Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia and Switzerland that only Parties that

(i) have ratified the Kyoto Protocol,

(ii) have submitted their inventories and their national communications in accordance with Art. 12 of the FCCC and information pursuant to Art. 7 and Art. 10 of the Protocol, and that

(iii) have ratified the compliance regime to be developed and adopted under Art. 18 of the Protocol shall participate in CDM projects.

c) Participating Annex I Parties have to be in compliance with Art. 5 and Art. 7 of the Protocol. Parties' implementation of the requirements of the modalities and procedures for the CDM should be subject of expert review under Art. 8.

d) Private and public entities should be able to participate in the CDM under the authority and responsibility of the Parties involved and subject to the guidance provided by the executive board of the CDM.

II. <u>Process (incl. methodological issues)</u>

4. Project Identification and Implementation

a) In order to ensure that CDM projects are compatible with and supportive of national sustainable development needs and priorities, host countries in addition to approving the project in accordance with Art. 12.5 (a) should be involved in project identification, development and implementation.

b) CDM investment should flow directly between the partners involved in the project. The CDM should work efficiently, minimize transaction cost and avoid the creation of a new bureaucracy.

5. Certification, Auditing and Verification

a) One Certified Emission Reduction (CER) unit should be equal to one metric ton of CO_2 equivalent emissions calculated using the global warming potentials defined by Decision 2/CP. 3 or as subsequently revised in accordance with Art. 5.3 of the Protocol.

b) CER units should have a unique serial number that reflects the country of origin and the year of certification and a project reference.

c) Independent auditing and verification of CDM project acitivities, including certified emission reduction units have to be ensured. Guidelines and methodologies for independent auditing and verification have to be decided upon by the COP/moP.

d) The operational entities for the certification of emission reductions could be intergovernmental and/or public and/or private entities. In order to avoid conflict of interest such entities must not be involved in project identification and implementation. Operational entities should be under the supervision of an institution that is able to ensure independent and effective functioning of such entities. These entities shall be designated by the COP/moP.

6. Reporting to the COP/MOP

a) There should be annual reporting on individual CDM projects. They should also be included in the national communications of the Parties involved.

b) Guidelines for reporting of CDM projects need to be developed. They should be based on the uniform reporting format of the AIJ pilot phase, taking into account any recommendations on improvements to the format that may arise from the review of the AIJ pilot phase to improve information and transparent reporting.

7. Acquisition of CER units

a) The acquisition of CER units can only take place once modalities and procedures have been adopted by the CoP/moP including the determination of "part" as provided for in Article 12.3. The mechanism for accounting, certification, reporting and verification has to be defined and in place before emission reductions under the CDM can be used to count towards the fulfilment of Annex I Parties' commitments.

b) Given that Art 12.10 permits pre-commitment period banking of CER units generated from 2000 work on detailed criteria and guidance should proceed urgently. If the modalities and procedures on the CDM have not yet been adopted by the CoP/moP in 2000, emission reduction units within the CDM that arise between 2000 and that adoption can be added to the assigned amount ex post only if they comply with the subsequently agreed modalities and procedures.

c) In accordance with Art. 12.3 (b) and 3.12 of the Protocol CER units from a CDM project should be added to the assigned amount of the aquiring Annex I Party.

d) Non-Annex I Parties will benefit from the development, transfer and application of climate friendly technology through project activities resulting in certified emission reductions (Art. 12.3 (a)).

e) The use of CER units in an emissions trading system needs to be further discussed.

8. Share of Proceeds

a) CoP/moP should agree on how the share of the proceeds from certified project activities should be generated and allocated. In ensuring that a share of the proceeds is used for adaptation and administration, the COP/moP should take account of the need to minimize possible disincentives for potential investors to carry out CDM projects.

b) There are various ways to calculate the share of proceeds which need further consideration, e.g. calculation on the basis of the return of the project activity that is the part of the project leading to real certified emission reductions.

c) The funds from the share of proceeds for adaptation should be allocated on a project basis and be managed by existing multilateral entity/entities with adequate experience and expertise.

d) Criteria for the eligibility of adaptation projects should be clearly defined building on the three stage approach defined in Decision 11/CP.1.

III. Institutional issues

The roles of the CoP/MoP, the executive board and operational entities need to be defined. Using existing bodies that have the relevant experience and expertise is generally preferable to creating new bodies. CoP needs to define the tasks of the CDM more closely before deciding which institutions should perform these functions. We need to fully build on the work and experience of relevant bodies, such as the IPCC, the UNFCCC Secretariat and the GEF and its Implementing Agencies.

PAPER NO. 2: EGYPT

FOLLOW-UP TO THE SESSIONS OF THE SUBSIDIARY BODIES OF UNFCCC

The following are some comments on cooperative mechanisms.

1. A share of the CDM allocations should be used to assist developing countries that are particularly vulnerable to adverse impacts of climate change, meet the costs of adaptation measures.

2. A minimum percentage of GHG reductions limits of Annex-I countries should be achieved due to domestic actions, at home, and the rest could be achieved through emission trading and CDM. These percentages should be determined through negotiations and approval of COP/MOP.

3. Failure to achieve the determined domestic reductions percentage, would make the non-complying party non-eligible for emission trading or CDM.

4. Building the capacity of Non-Annex I countries in emission trading and other cooperative mechanisms is essential to activate such mechanisms.

PAPER NO. 3: GEORGIA

VIEWS ON THE MECHANISMS REFERRED TO IN DECISION 1/CP.3, PARAGRAPH 5(b), (c) AND (e)

Georgian delegation has fixed once again its position, declared in Kyoto, at the above-mentioned session, which was reflected in the Bulletin of these sessions (June 9, 1998, vol-12, N 82, p. 2). Particularly, it is said in it that Georgia declared the readiness of a number of Annex 1 countries to take voluntary commitments on the limitation of GHG emissions, if there will be adequate aid in conformity with the 4[th] article of the Convention and which will be implemented within "Clean Development Mechanism". At present, Georgia can participate only in the "Clean Development Mechanism" and take commitments voluntarily within it and it has already declared about that. Just under this mechanism should be undertaken stage by stage and painless replacement of the fuel rich in Carbon by the fuel containing less carbon. Identification of GHG emission limits will be carried out within this mechanism for each large emitting enterprise, on which the introduction of new environmental friendly technologies will be possible and just by the use of these technologies and renewable power sources and with the assistance of foreign investors and international financial bodies will be implemented commitments taken, which, in fact, correspond to saved emission certified by those projects, which should be financed.

Proposal of Georgia on CDM

The only mechanism out of JI, CDM and ET mechanisms, in which Georgia is able to participate, at present is "Clean development mechanism" This mechanism widens the range of cooperation for the sides,. included in the Annex I (developed countries and countries with economy in transition) creating favorable conditions for there countries to be able to develop sustainable and fulfill the commitments to the UNFCCC. In particular, CDM assists those developing countries to elaborate and implement an adaptation strategy, which have economy vulnerable to Climate Change and use the mechanism of decreased emission certification from the countries, included in the Annex I in the policy of investment of projects necessary for the sustainable development of the countries not included in the Annex I. Unfortunately, this mechanism is at present on the stage of formation. That is why it is rather vague and makes the fate of the countries, not included in the Annex I, entirely dependent on the will of developed countries situating them in rather bandaging conditions.

In spite of the considerations, mentioned above, it should be noted that numerous environmentally friendly projects have been implemented by a number of developed countries on the territories of developing countries and those with economy in transition in the experimental phase of JI, known as Activities implemented Jointly and they are to be continued till the year 2000. As a result, we hope that now and especially after improving this mechanism, projects promotion the sustainable development of the country?s economy will be really implemented in Georgia.

Our considerations on the steps, accelerating the processes and promoting active participation of both developing countries and those with economy in transition in the "Clean Development Mechanism" are as follows:

1. To assist developing countries and those with economy in transition in creating their national and regional structures, which will serve clean technology transfer.

2. To establish an International Center (Similar GREENTIE), which will promote not only information collection and exchange between developed and developing countries (that is done at present by GREENTIE), but will coordinate this process.

3. Creation of more serious stimulating mechanism by local governments and international organizations for the purpose of more active participation of a private sector in these processes.

4. To carry out more assistance to developing countries and those with economy in transition while financing demonstrative and pilot projects.

5. To make target investments by international financial organizations for a local private sector.

Emission Trading

Using the Certified Emission Reduction(CER) obtained through CDM during the period from 2000 up to the beginning of the first commitment period can be used for participation non-Annex I countries in Emission Trading.

PAPER NO. 4: JAPAN

Non-Paper on Guidelines for the Implementation of Projects under Article 6 of the Kyoto Protocol

With regard to Article 6 of the Kyoto Protocol, the elaboration of guidelines by the Conference of the Parties serving as the meeting of the Parties to the Protocol (COP/moP), is not necessarily prerequisite for the implementation of projects whereas Article 12 requires to elaborate, because

(3) Article 6 already provides elaborate enough guidelines to proceed the projects under Article 6.

(2) Article 6.2 specifies that "The Conference of the Parties serving as the meeting of the Parties to this Protocol may, at its first session or as soon as practicable thereafter, further elaborate guidelines for the implementation of this Article, including for verification and reporting."

Nevertheless, in order to ensure smooth implementation of projects under Article 6, it would be helpful to lay down guidelines for clarifying or complementing the content of Article 6. Therefore, the Government of Japan proposes the "ELEMENTS TO BE INCLUDED IN GUIDELINES FOR THE IMPLEMENTATION OF PROJECTS UNDER ARTICLE 6." in the ANNEX.

1. Guiding Factors

(1) Efficiency and Simplicity

Guidelines for the implementation of projects under Article 6 should be simple. Projects under Article 6 could contribute to mitigating climate change through the cost-effective and efficient reduction of emissions by sources and enhancement of removals by sinks of greenhouse gases. To this end, the system should be easy to apply and minimize transaction costs.

(2) Transparency

The participating Parties should ensure transparency of the system by reporting necessary information to the COP/moP and making it public so that the system is efficient and equitable.

2. Key Issues

(1) Methodologies for Estimating Emission Reduction Units

Article 6 enables transfers and acquisitions of emission reduction units (ERUs) only among Annex I Parties, and, as a result, the combined total assigned amount for Annex I

Parties remains unchanged. With each transfer and acquisition of ERUs, an increase of an assigned amount for one Party means a decrease of an assigned amount for another Party. It follows that participating Parties are expected to determine the amount of ERUs to the appropriate level through consultation among them to protect their respective interests. Therefore calculation of ERUs could be left to the decision of the participating Parties.

Therefore, common and obligatory rules concerning methodologies for calculating ERUs, including those for establishing a baseline are considered unnecessary.

It is needless to say that the participating Parties could agree to refer to methodologies for CDM once they are elaborated by the COP/moP in accordance with Article 12.7.

(2) Supplementarity

To set a quantified ceiling for transfers and acquisitions of ERUs not only impedes the efficiency of the system, but also discourages domestic actions of a Party where a project site is located, and who carries out the project under Article 6 as its own domestic action, and reduces the extent to which the host Party could address the environmental protection. Therefore, the ceiling may not assist in the realization of the purposes of the Protocol.

(ANNEX)

ELEMENTS TO BE INCLUDED IN GUIDELINES
FOR THE IMPLEMENTATION OF PROJECTS UNDER ARTICLE 6

1. Conditions for Implementation of Projects under Article 6

Any Party included in Annex I or legal entities authorized by that Party to participate may implement a project under Article 6. However, any Party that is not in compliance with its obligations under Articles 5 and 7 or that does not have a national recording system provided in section 8 below cannot acquire emission reduction units (ERUs). Any legal entity of such Parties cannot acquire them, either. (Article 6.1(c))

2. Requirements for Projects Under Article 6

Projects that satisfy the following requirements may generate ERUs as defined in Article 6:

a) The purpose of the project is to reduce anthropogenic emissions by sources or to enhance anthropogenic removals by sinks of greenhouse gases in any sector of the economy (Chapeau of Article 6);

b) The project shall have the approval of the Parties involved(Article 6.1(a));

c) The project shall provide a reduction in emissions by sources or an enhancement of removals by sinks of greenhouse gases, that is additional to any that would otherwise occur (Article 6.1(b)).

3. Projects Providing a Reduction in Emissions by Sources

Projects providing a reduction in emissions by sources which start before the beginning of the first commitment period may be eligible for those under Article 6.

4. Projects Providing an Enhancement of Removals by Sinks

Projects providing an enhancement of removals by sinks which enhance removals by sinks of the greenhouse gases, as defined under Article 3.3 or as added in accordance with Article 3.4, may be eligible for those under Article 6, provided that they take place after the year 1990.

5. Verification of Additionality and Generation of Emission Reduction Units

1. Parties involved or legal entities authorized by those Parties to participate shall decide by mutual consent the level of "any that would otherwise occur" as defined in Article 6.1(b), i.e. the amount of baseline emissions by sources or baseline removals by sinks.

b) Parties involved or legal entities authorized by those Parties to participate shall establish by mutual consent the methodologies for estimating the amount of emissions by sources or removals by sinks resulting from a project.

c) The difference between the amount of the baseline emissions by sources or baseline removals by sinks as defined in section 5. a) above and the amount of the emissions by sources or removals by sinks estimated and verified by methodologies provided in section 5. b) above constitutes the additional reduction in emissions by sources or the additional enhancement of removals by sinks as defined in Article 6.1(b).

d) Parties involved or legal entities authorized by those Parties to participate may designate by mutual consent all or a part of the additional emissions reductions by sources or the additional removals by sinks provided in section 5. c) above, as emission reduction units.

e) A Party involved where a project site is located (a host Party) has to put serial numbers on emission reduction units generated.

f) Emission reduction units are subtracted from the assigned amount of a host Party, and added to the assigned amount of the other Party involved in which the project site is not located (a guest Party).

g) Emission reduction units shall be expressed in CO_2 equivalent units. The minimum unit is 1 ton. The GWPs used for calculating the CO_2 equivalent units are those based on the effects of the greenhouse gases over 100-year time horizon, and is fixed during a commitment period.

6. Reporting

a) Each Party shall submit to the secretariat an annual report explaining i)outline of the projects implemented by that Party or legal entities authorized by that Party to participate, ii)how to establish the baseline emissions or removals, iii)methodologies for estimation and verification, iv)estimated and verified amount of the additional reduction in emissions or the additional enhancement of removals, v)amount of emission reduction units generated and vi)amount of emission reduction units transferred or acquired.

b) The secretariat has to make the above report public.

7. Emission Reduction Unit Transfer and Acquisition

a) Emission reduction units can be transferred to third Parties.

b) If a question of implementation by a Party included in Annex I of the requirements referred to in Article 6 is identified in accordance with the relevant provisions of Article 8, transfers and acquisitions of emission reduction units may continue to be made after the question has been identified, provided that any such units may not be used by a Party to meet its commitments under Article 3 until any issue of compliance is resolved (Article 6.4).

8. National Recording System

The national recording system is a system of Annex I Parties for recording information necessary for the implementation of Article 6, such as the information related to generation, transfer, acquisition and possession of emission reduction units of the Party, and/or its legal entities.

PAPER NO. 5: JAPAN

NON-PAPER ON DESIGN FOR THE CLEAN DEVELOPMENT MECHANISM

I. How to Proceed with Elaboration of Modalities and Procedures for the clean development mechanism (CDM)

1. Issues to be considered concerning the CDM can be broadly classified into the following categories.

(1) Substantial Issues

(a) Methodology and Process Concerning Certification and Implementation of CDM Projects

(b) Generation, Transfer and Acquisition of Certified Emission Reductions (CERs)

(c) Use of a Share of the Proceeds from Certified Project Activities

(2) Institutional Issues

As a procedure, "Methodology and Process Concerning Certification and Implementation of CDM Projects" and "Use of a Share of the Proceeds from Certified Project Activities" should be considered first among these issues. It is appropriate to consider "Institutional Issues" once the above consideration has proceeded a step further.

In considering the issue "Generation, Transfer and Acquisition of CERs", attention should be paid to the interrelations and possible linkage with the designing of the emissions trading.

2. Article 12.10 of the Kyoto Protocol provides that certified emission reductions obtained from the CDM after the year 2000 can be used to assist in achieving compliance. Therefore, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/moP) should agree on modalities and procedures in accordance with Article 12.7 by the year 1999, or if the Protocol does not enter into force by the year 2000, the Conference of the Parties (COP) should reach an interim agreement by the year 1999. (If the interim agreement is agreed by the COP, it is expected that later on it will be approved formally by COP/moP at its first session and applied retroactively.)

II List of Issues to be Considered and the View of the Japanese Government Regarding Such Issues

1. Substantial Issues

II Methodology and Process Concerning Certification and Implementation of CDM Projects

(a) Project Eligibility

(i) Target Projects

(i-i) Gas Coverage
CDM Projects cover six greenhouse gases listed in Annex A of the Protocol.

(i-ii) Sinks
CDM should include sink projects. The coverage of sink projects will be further discussed.

(i-iii) Projects commenced before the year 2000
Projects commenced before the year 2000 can be certified as CDM projects.

(ii) Additionality

(ii-i) How to Define the Concept of Additionality

Additionality of projects is the most important issue in establishing the CDM system. According to Article 12.5(c), additionality refers to "Reductions in emissions that are additional to any that would occur in the absence of the certified project activity." Comparing the emissions in the case when no CDM project took place (i.e. baseline emissions) with the emissions in the case when the project was carried out (i.e. project-based emissions), if the project-based emissions fall below the baseline emissions, the difference can be certified as being additional. (Projects concerning sinks can be considered in the same way. If project-based removals by sinks exceed baseline removals by sinks, the difference can be certified as being additional.) Thus, the following two points are the key issues.

- How to certify baseline emissions (or removals by sinks)
- How to verify project-based emissions (or removals by sinks)

(ii-ii) Establishment of Baseline Emissions. The baseline emissions may be established using the following two methods.

- Use of a standardized baseline for each project category
- When no standards have been developed, or when there are circumstances which make the use of such standard baseline inadequate, then decisions will be made on a case-by-case basis.

Standardization of a baseline for each project category would be desirable to provide simplified administrative arrangements.
Standardized baselines may also reduce transaction costs and thus promote the CDM. However, such standardization requires much experience and time. A case-by-case method would be also allowed, at least, in the meantime.

In addition, long-term projects call for further consideration of whether baselines need to be revised after a project commences, or whether other methods could be found. (For example, to use a dynamic baseline taking into account future technological advances).

(ii-iii) Monitoring, Verification and Reporting of Project-based Emissions

Project participants should be required to take responsibility for monitoring, verification and reporting of actual emissions. As in the case of establishing baseline emissions, standardized methods for monitoring, verification and reporting for each project category are preferable, but case-by-case methods should be used when appropriate.

(iii) Are Additional Guidelines Needed for Article 12.5(a) "Voluntary participation approved by each Party involved"?

Since the approval of the project should be entrusted to the Parties involved, additional guidelines for Article 12.5(a) are not necessary.

(iv) Are Criteria Needed for Article 12.5(b) "real, measurable, and long-term benefits"?

It is difficult to establish generalized criteria because whether a project will produce "real, measurable, and long-term benefits" depends to a great extent on various factors such as country, region, period of time and surrounding environment where the project is implemented. Thus, it is expected that any Party will judge comprehensively pursuant to each project when a Party approves.

(v) Are Criteria needed for Article 12.2 "to assist Parties included in Annex I in achieving sustainable development"?

The host Party should judge for itself whether a CDM project is beneficial to the achievement of sustainable development. When the host Party determines that a project is not beneficial, it can reject the approval of the project. Thus, there is no need for criteria.

(b) CDM Projects Participants

As indicated in Article 12.9, participation under the CDM may involve any Party or private and/or public entities. What types of private and/or public entities are qualified to participate is to be subject to whatever guidance may be provided by the executive board of the CDM as indicated in the provision. But basically, it should be entrusted to the judgement of the Party those entities belong to.

(c) Certification Process

To minimize the risk of investors, a project should be certified as a CDM project before the project commences. On the other hand, the amount of emissions reductions annot be made until the project is actually launched. Considering these points, the following two-step certification process is appropriate.

(i) Project Certification: Process Prior to Launching Projects

At the request of project participants, an operational entity certifies a project as a CDM project based on judging whether the applied project is appropriate to the CDM and estimating the expected emissions reductions. A project should be certified as a CDM project before launching the project. However, a project commenced before the year 2000 may also be retroactively certified as a CDM project. Specifically, the pre-project certification process is as follows.

- Additionality

  An operational entity establishes the baseline emissions of the project and estimates project-based emissions. Additionality is certified based on whether the estimated project-based emissions fall below baseline emissions.

- "Voluntary participation approved by each Party involved" and "real, measurable, and long-term benefits related to the mitigation of climate change"

  An operational entity confirms whether participating Parties approve the project and whether these Parties recognize the project will generate these benefits.

(ii) Reductions Certification: Process After Launching the Project

An operational entity certifies emissions reductions by comparing the project-based reductions obtained from the results of actual monitoring, verification and reporting with the baseline emissions established during the project certification process.

(d) Definition of Article 12.6

Activities expected under Article 12.6 are to make a match between investors and project participants and so forth.

(2) Generation, Transfer and Acquisition of CERs

(a) Generation Process of CERs: Are CERs generated simply through certification of eductions by an operational entity or is some kind of additional procedure necessary afterwards?

(b) Owners of CERs: To whom and how much do the generated CERs belong? CERs are shared by the project participants (i.e. Parties or private and/or public entities). The allocation of CERs among multiple project participants is decided by consent of the participants themselves.

(c) How are CERs Transferred and Acquired?

(i) Characteristics of CERs: Fungibility of Assigned Amount Units (AAUs) of Emissions Trading and Emissions Reduction Units (ERUs) of Joint Implementation

(ii) Tracking of CERs

(3) Use of a Share of the Proceeds from Certified Project Activities

(a) Process for Determining a Share of the Proceeds

A share of the proceeds should be determined based on the generated amount of CERs and not the amount of investment to CDM projects.

To promote the CDM, it is appropriate to set a share of the proceeds at a comparatively modest level. If it is set at a high level, the number of CDM projects will decrease, thus the financial contributions to support developing country Parties will also decrease.

(b) Allocation of a Share of the Proceeds Between "Covering Administrative Costs" and "Assisting Developing Country Parties"

Options include the following.

- To entrust the determination of the total amount of a share of the proceeds and the allocation to the decision of the COP/moP

- (Based on the assumption that a project participant can select an operational entity from among more than one designated operational entities) Only the part of a share of the proceeds for assisting developing country Parties could be decided by the COP/moP. The part of a share of the proceeds for covering administrative costs could be decided by an operational entity itself.

(c) Definition of "to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the cost of adaptation"

The framework to assist developing country Parties by using a share of the proceeds should be studied among others with the view to implementing assistance efficiently and minimizing administrative expenses.

2. Institutional Issues

(1) Executive Board

(a) The number of Board Members and Structure of the Executive Board

(b) Secretariat of the Executive Board

(c) Frequency of Executive Board Meetings

(d) Budget of the Executive Board

(e) The Role of the Executive Board: Definition of Supervision of the CDM (Article 12.4 of the Kyoto Protocol)

(2) Structure and Role of Operational Entities

(a) Designation of Operational Entities by COP/moP

- Are Guidelines needed for Designating Operational Entities ?

- The Number of Operational Entities

- Newly Established Entities or Existing Entities ?

- Private Entities, Public Entities or International Organization ?

(b) Role of Operational Entities: Other than Certification

(3) Who conducts to "assist in arranging funding of certified project activities as necessary" (Article 12.8)

(4) Who conducts "to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the cost of adaptation" (Article 12.8) (COP/moP or executive board or operational entity (or entities) or should it be entrusted the Global Environment Facility (GEF)?

PAPER NO. 6

RESPONSES TO G-77/CHINA QUESTIONS ON FLEXIBILITY MECHANISMS

The following document is a set of answers, submitted by Australia, Canada, Iceland, Japan, New Zealand, Norway, Russian Federation, Ukraine and United States to questions posed by the G-77 and China in FCCC/SB/1998/MISC.1/Add.5. It represents the preliminary views of these countries, and is submitted with a view to facilitating further discussions on these important issues.

General

1. **What are the points of difference and points of similarity among the three mechanisms provided for in the Kyoto Protocol to the Convention?**

Key similarities:

- All three voluntary market-based mechanisms work to the benefit of the environment, because they will assist Annex I Parties in meeting their emissions targets and, in the case of projects under Article 6 (hereafter joint implementation -- JI) and project activities under Article 12 (hereafter the Clean Development Mechanism -- CDM), provide an additional incentive to develop and transfer technologies and practices that will reduce emissions.

- Moreover, all three mechanisms will help Parties to meet their emissions target cost-effectively.

- All three mechanisms ultimately involve adjustments in the assigned amounts of Annex I Parties.

- All three mechanisms will provide opportunities for potentially significant technology and resource transfer, from both the public and private sector, to countries with economies in transition and developing countries.

- All three mechanisms permit private sector participation, with responsibility for meeting Protocol obligations remaining with governments.

Key differences:

- International emissions trading (IET) and JI will involve transactions among Annex I Parties and entities, whereas the CDM will involve transactions among Annex I and non-Annex I Parties and entities.

  JI and the CDM both involve specific projects, while IET does not.

- With respect to JI and the CDM, there may be similarities with regard to types of projects and methods for measurement of emissions reductions. However, there are also differences, given that JI reductions are ultimately subtracted from the assigned amount of a Party with a national target, whereas CDM reductions are not; therefore, additionality criteria are particularly critical to the integrity of the CDM.

- IET and JI involve reallocating assigned amounts, with the aggregate remaining constant; in contrast, CDM units are "extra-budgetary," adding additional units to the original Annex I aggregate assigned amount.

- IET, JI and the CDM are mechanisms to assist Annex I Parties in meeting their emissions targets. However, the CDM also serves as a mechanism to assist in achieving sustainable development in Parties not included in Annex I by encouraging investment and transfer of technology.

- Of the three mechanisms, only the CDM calls for the establishment of an Executive Board and requires certification by internationally selected operational entities.

- In terms of decisions on any rules/guidelines, the COP is to make such decisions regarding IET, whereas the COP/moP is to make such decisions regarding JI and CDM.

- Article 12 (CDM) requires further rules regarding project certification, whereas Article 6 (JI) does not necessarily require them.

- Apart from any similarities and differences among the three mechanisms, all should be implemented so as to minimize complexity, provide cost-effective opportunities for meeting emissions targets, keep transaction costs low, and support fungibility of credit units.

2. How to ensure that domestic actions by developed countries are their primary means of GHG limitation and reduction, and that the overseas mechanisms remain supplemental to such domestic actions by developed countries for the purpose of meeting their quantified emission limitation and reduction commitments?

- Articles 6 and 17 of the Kyoto Protocol require that JI and IET are to be "supplemental to domestic action" for the purpose of meeting commitments under Article 3. However, it should be noted that the Protocol does not call for domestic actions to be the "primary means" of limiting greenhouse gas emissions. As will be recalled, proposals related to JI and IET that would have required domestic actions to be the "main means" of meeting Article 3 targets did not command consensus and were not included in the Protocol.

- Annex I Parties are undertaking, and planning to undertake, significant domestic action to reduce emissions. (Please refer to national communications for examples of Parties' domestic actions.)

- Several Parties have taken on and/or announced specific measures to begin domestic actions to encourage early reductions of greenhouse gases through better diffusion of existing technology, to fund additional research to develop new technology, to continue or enhance the use of economic incentives, and to implement national greenhouse gas emissions trading systems.
- Parties' domestic actions will be examined through the process for in-depth review of national communications.

• Concerning the suggestion that the carefully negotiated compromise term "supplemental" in Articles 6 and 17 be quantified, such an approach is neither authorized nor required by the Protocol.

- As indicated in the Non-Paper on Principles, Modalities, Rules and Guidelines for an IET Regime (FCCC/SB/MISC.1/Add.1/Rev.1), IET will be more effective in achieving emissions reductions at lowest cost if there are no restrictions on the quantity of assigned amounts units able to be transferred or acquired to contribute to compliance with a Party's assigned amount. If the flexibility inherent in these mechanisms is restricted, the result would increase substantially the cost of achieving our environmental objectives.
- Such a quantitative restriction on IET would be technically difficult to define and design, and could require an administratively burdensome government monitoring and approval regime to implement, adding significantly to transaction costs.

3. **How can it be ensured that these mechanisms lead to real and verifiable limitation and reduction of GHG emissions by developed countries?**

• The Kyoto Protocol establishes legally binding emissions commitments for Annex I Parties. As a result, accurate measurement and reporting will be critical to the successful implementation of the Protocol, regardless of the extent to which Parties elect to use the flexibility mechanisms.

• Having said that, there are ways that the mechanisms can be structured so as to provide additional incentives for accurate measurement and reporting:

- Article 6 (JI) already provides that an Annex I Party cannot acquire emission reduction units if it is not in compliance with its obligations under Articles 5 and 7.
- As indicated in the Non-Paper on Principles, Modalities, Rules and Guidelines for an IET Regime (FCCC/SB/MISC.1/Add.1/Rev.1), we support linkages in the IET rules between the ability to engage in trading and compliance with Articles 5 and 7.
- Concerning CDM, Article 12 reflects the importance the Parties put on the need for ensuring real reductions. CDM projects will be verified on the basis of agreed guidelines for calculation of project or technology baselines, measurement of

emissions reductions resulting from the project, and transparent reporting of results, open for third party evaluation. The experiences gained during the AIJ Pilot Phase may provide valuable information on useful methodologies in this respect.

4. How to ensure that the COP or COP/mop will maintain the responsibility for every stage of defining, developing, structuring, and institutionalizing the mechanisms?

- Under the Protocol (and as noted in part above), the COP and COP/moP have different functions with regard to the three mechanisms. For example, elaboration of the CDM will require substantial COP/moP decision-making with respect to both substantive and institutional issues. In contrast, JI under Article 6 could be implemented without further decisions by the COP/moP (i.e., because the Article provides that the COP/moP "may" further elaborate guidelines). Concerning Article 17, IET is not legally dependent upon the adoption of guidelines although, once adopted, any principles, rules and guidelines adopted by the COP would govern IET from that point.

5. What are the specific roles of the SBSTA and the SBI with regard to these mechanisms?

- The SBSTA and SBI will continue to serve the function of recommending decisions to the COP or COP/moP to facilitate the implementation of the Protocol, taking into account the submissions of Parties, the FCCC Secretariat, other international bodies, and the input of non-governmental organizations. Specific roles will be identified as progress is made.

6. What will be the systems for ensuring independent auditing, verification, and accountability of the working of the mechanisms?

- As noted above, the three mechanisms have different provisions when it comes to such issues as verification, auditing, etc.
  - Article 6 (JI) and Article 17 (IET) authorize, but do not require, further guidelines on verification and reporting.
  - Article 12 specifically provides for "independent auditing and verification" of project activities.
- Accurate measurement and reporting (including guidelines for standardized reporting) will be critical to the integrity of the Kyoto regime, given that the key obligations involve legally binding emissions limitation targets.
- Depending upon the particular mechanism and its requirements, the use of existing mchanisms in the private sector (for tasks such as auditing and accounting) could be advisable, given that many such mechanisms have already been tested in the demanding private sector markets.

- The expert review process of implementation of Article 3 obligations (to which all three mechanisms relate) will also play an important role in promoting the integrity of the mechanisms.
- Finally, public dissemination of emissions and assigned amount data, through appropriate reports on the Internet for example, can help to ensure transparency.

Article 6 Projects

1. **What will be the elements of the guidelines for projects under Article 6, in particular, for ensuring transparency, accountability, reporting, and verification?**

- Article 6 contains key criteria and guidelines for cooperative activities.
- Articles 3.10. and 3.11 of the Protocol establish that emission reduction units transferred between Annex I Parties as a result of projects under Article 6 are to be added to or subtracted from Parties' assigned amounts. Thus, activities under Article 6 will not change the total assigned amounts of Annex I Parties, only the distribution of these amounts among individual Parties.
- Changes in assigned amounts will be reported annually and can be tracked on this basis. In this regard, it would be useful initially to consider the Uniform Reporting Format from the AIJ Pilot Phase.
- Guidelines providing for the use of simplified, standardized methods to assess additionality (such as thresholds for specific projects or sectors) could promote transparency.
- It should also be noted that the overall expert review process (including expert review of inventories) regarding compliance with Article 3 (of which JI is a component) will necessarily play a role with respect to accountability and verification.

2. **What will be the criteria for deciding the baseline of projects?**

- Article 6.1(b) requires that a JI project "provide[ ] a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur."
- The AIJ Pilot Phase and related work have provided considerable information on how to establish baselines.
- The basic criterion is to establish a baseline to enable measurement of the effect of the project activity compared to business-as-usual. This baseline could vary between different sectors and countries.

3. How can compliance with Articles 5 and 7 of the Protocol be ensured, and how is this related to the work to be accomplished under Article 18?

- Accurate measurement and reporting are critical to the integrity of the Protocol generally, given the nature of the target obligations.

- Article 18 may ultimately be relevant to promoting compliance with Articles 5 and 7.

- However, it would not appear helpful to rely exclusively on Article 18, particularly given that the Article 18 procedure may require amendment to the Protocol and therefore potentially substantial time to become operative.

- Rather, the flexibility mechanisms themselves should be structured to provide their own relevant incentives to comply with Articles 5 and 7.

- In the case of JI, the Protocol itself (through Article 6.1(c)) provides that an Annex I Party may not acquire emission reduction units if it is not in compliance with its obligations under Articles 5 and 7. Such a provision should provide a useful incentive for Annex I Parties, at least for those interested in using JI, to comply with the Protocol's measurement and reporting provisions.

- In addition, we believe the COP should focus early attention on elaborating measurement and reporting guidelines called for under Articles 5 and 7. Such work will be important not only for flexibility mechanisms, but for the Protocol generally.

4. What will be the procedure for transferring or acquiring emission reduction units resulting from projects under Article 6?

- The transfer of emission reduction units between Annex I Parties, which ultimately results in adjustments in their assigned amounts, will have to be approved and agreed by the involved Parties.

- Based on this approval and agreement, adjustments to assigned amounts will have to be recorded, for example in these Parties' annual inventories and/or national communications.

- The Parties will be subject to any guidelines, including for verification and reporting, that COP/moP may further elaborate.

5. What will be the system for auditing and verifying projects under Article 6?

- Each Party involved in JI will have the responsibility to approve, monitor, and report each JI project in which it or one of its legal entities is involved.

- The COP/moP may develop further guidelines concerning the credibility and transparency of national verification systems.

- The extent to which a JI project meets applicable international criteria can also be the subject of the expert review process of implementation of Article 3 obligations, to which JI is obviously related.

6. How will "legal entities" to be involved in these projects be defined and how will the responsibility of the Party over "legal entities" for the purpose of the projects be ensured?

- It is up to individual Annex I Parties to decide if and how it will allow its "legal entities" to participate. If it does allow some or all legal entities to participate, it is up to that Party to ensure, through its national system, that such entities participate in a way that is consistent with any relevant Protocol provisions or rules adopted thereunder.
- However, an Annex I Party's national decision to allow private sector participation does not absolve that Party of its obligations, at the governmental level, under the Protocol.

7. How will the benefits of a project under Article 6 be equitably shared between the participating Parties?

- The sharing of all of the various benefits of a project are a matter for negotiation between those involved (noting the requirement under Article 6.1(a) that any project have the approval of the Parties involved).
- JI projects could also enhance the capacity of host countries to take national action of their own and could create other secondary benefits in the host country, such as a reduction in local pollution effects.

8. What will be the reporting criteria of a project under Article 6 to the COP/mop?

- The COP/moP is authorized, under Article 6.2, to further elaborate guidelines, including for reporting. Thus, reporting criteria could be developed, possibly taking into account the uniform reporting format for AIJ under the pilot phase.
- Reports from Parties should include, at a minimum, information on the project; what baseline emissions and "with-project" emissions were, and how they were determined; and adequate information to demonstrate that the project was accepted by the Parties involved.

Article 12- Clean Development Mechanism

1. What will be the criteria for ensuring a balance wherein each CDM project attains the objective of assisting developing country Parties in achieving sustainable development in accordance with their national priorities and strategy, and assisting developed country Parties in achieving compliance with their commitments under Article 3?

- Article 12.5 provides that emission reductions resulting from each project activity are to be certified on the basis of, inter alia, voluntary participation approved by each Party involved.

- Thus, a host country will have the opportunity to ensure that any proposed CDM project in which it is potentially involved respects its national priorities and strategy concerning sustainable development.

2. How to ensure that the CDM shall be subject to the authority and guidance of the Conference of Parties serving as the meeting of the Parties to the Protocol?

- Article 12.4 expressly provides that the CDM shall be subject to the authority and guidance of the COP/moP.

- The oversight role of the COP/moP will be carried out through:

  - its mandate for the Executive Board;

  - its ongoing review of the operation of the Executive Board and operational entities; and

  - its elaboration of the governing modalities and procedures for ensuring transparency, efficiency and accountability through independent auditing and verification of project activities.

  - its designation of operational entities.

3. How to ensure that the Executive Board of the CDM shall function under the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to the Protocol?

- See the response to question 2 above.

4. What will be the constitution, character and functions of the Executive Board of the CDM?

- The constitution, character and functions of the Executive Board will in part depend on the form and functions of the CDM as a whole.

- It is therefore logical and practical to decide first on the functions of the various aspects of the whole mechanism before starting to consider what functions and form the various institutional components might have. We look forward to further discussing this important issue with the G-77 and China, as well as other Parties.

5. **How will the emission reductions of a CDM project be certified? What will be the certification procedure, and by whom will this be accomplished?**

- According to Article 12.5, certification of CDM projects would be based on three criteria: a) voluntary participation approved by each Party involved; b) project activity provides real, measurable and long-term benefits related to the mitigation of climate change; and c) emissions reductions must be "additional to any that would occur in the absence of the certified project activity." Clear and transparent certification procedures for these criteria would need to be developed to provide assurance that CDM investments will yield sound certified emission reductions (CERs).

- Reductions will be determined once they actually occur and will reflect the performance of the project as measured against a set of performance measures. Reporting of CDM activities, both by Parties and by the operational entities, will provide additional information on transfers and acquisitions of certified emission reduction benefits. We have a preference for independent and decentralized operational entities to reduce potential transaction costs.

6. **How to define and quantify "part" in "...part of quantified emission limitation and reduction commitments" in Article 12.3 (b) of the Protocol?**

- Article 12.3(b) provides that Annex I Parties may use the CERs accruing from project activities to contribute to compliance with part of their commitments under Article 3, as determined by the COP/moP.

- Article 12.3(b) provides for a determination by the COP/moP regarding how "Parties included in Annex I may use the certified emissions reductions accruing from such project activities to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3"; however, we would not agree that the COP/moP should seek to quantify "part of" because, for example:

  - Fewer projects would be initiated and therefore direct benefits (e.g., new technology, investment) to non-Annex I Parties would be reduced.

  - If the "scale" of CDM project activities is diminished, fewer funds would be available for adaptation (Article 12.8) efforts in vulnerable developing countries.

  - Imposing a ceiling on CDM project activities would create implementation problems for individual Annex I Parties. For example, the closer a Party approached any such ceiling, the greater the difficulty the Party, or a private company, would have in assessing whether it could actually count possible CERs toward compliance with Article 3 commitments.

7. **How to ensure the responsibility and role of governments at each stage of the CDM projects?**

- Responsibility for implementing obligations under the Protocol rests with governments.

- To the extent that a Party chooses to allow its private sector to participate in the CDM, it is a matter of national responsibility to ensure that such participation is consistent with any Protocol provisions, or rules/guidelines adopted thereunder.

- Non-Annex I governments will have a key role in determining which projects within their borders are eligible for certification under the CDM and in determining if and how private entities under their jurisdiction will participate in the CDM.

- Within the framework established by the COP/moP (and Executive Board, as appropriate), Parties will have full discretion to determine the extent of their participation in CDM projects and resulting CERs.

8. **How will it be ensured that the operational entity of the CDM, as designated by the COP, functions under the authority of the COP, and that its governance is separate from those of existing institutions?**

- First, the COP/moP will have the role of designating any operational entities of the CDM.

- Second, operational entities will be subject to whatever substantive and procedural rules/guidelines govern operation of the CDM.

- Third, operational entities will be supervised by the Executive Board, which in turn functions under the authority and guidance of the COP/moP.

9. **How will Article 12.6 of the Protocol be implemented? What will be the criteria and processes for the CDM for arranging due funding?**

- In our view, the bulk of CDM projects will be achieved through private investment. In some instances, Parties may participate. Investments will flow based on the availability of qualifying projects, the potential rate of return on investments, and the value of CERs if there is a market.

- In those cases where funding does not exist, the CDM may assist in arranging such funding, for example, by acting as a clearing-house and making widely known the nature of the proposed projects for which funding is necessary.

- While a "process" may be needed to assist in arranging funding (so as, for example, to ensure that there is no potential conflict of interest between institutions that are certifying emission reductions and that may also be arranging financing), it is not clear that "criteria" will be necessary, in that the CDM will not itself be providing funding.

10. How to ensure the independent auditing and verification of CDM projects activities?

- Ensuring independent auditing and verification of CDM projects is the very objective of the modalities/procedures to be elaborated by the COP/moP under Article 12.7.

- Auditing and verification rules need to be both robust and cost-effective, inasmuch as any funds spent on auditing and verification will ultimately be drawn from projects -- and will therefore decrease the number of projects undertaken.

- To avoid conflicts of interest, entities involved in auditing and verification should not be the same as those involved in project development or promotion.

- Using existing institutions, including those already in use in the financial sector, may substantially streamline the process, and lead to a robust system built on already proven principles.

- Multiple operational entities may be valuable, as each may develop expertise in individual regions or types of projects that will engender greater confidence in their results.

11. What will be the criteria for deciding the baseline of projects?

- The measurement of real, long-term mitigation benefits would require the development of baselines to demonstrate that projects result in actual greenhouse gas emissions that are less than baseline (business-as-usual) emissions. An important question to ensure consistency between similar projects, while minimizing transaction costs, is to determine the appropriate level of detail for developing project baselines (for example, whether to use project-, sector-, or country- benchmarks for emissions baselines). Guidelines for baseline measurement and verification should consider how baselines may evolve in the future.

- One method of establishing baselines (for example, to determine "additionality') is by employing a "benchmark" approach. A benchmark is a standard of performance which can be either historical or forward-looking. This distinguishes between those activities that generate greenhouse gas reductions in excess of baseline reductions and those that do not. Simply put, those activities that perform better than the benchmark meet the additionality criterion. Projects which would not be eligible under the benchmark approach, or for which criteria had not or could not be developed, could be considered separately on a case-by-case basis.

12. When should the benefits of CDM projects accrue to the participating developed country Parties?

- Regarding participation by an Annex I Party in the CDM through acquiring CERs, such reductions would be certified as they occur from project activities (including from 2000 to 2008) and could be used during the commitment period to assist in meeting Article 3 commitments.

13. What will be the action for non-compliance if a CDM project goes against the CDM criteria?

- This hypothetical situation seems unlikely if a two-step certification process is adopted:

project certification to estimate expected emission reductions for a project to qualify as a CDM project; and

certification of a precise number of emission reductions based on actual emissions monitored after commencement of the project.

- However, assuming such a case, the consequence would be that any reductions achieved from that project could not be used by an Annex I Party to meet part of its Article 3 commitment.

14. How to define "a share of the proceeds", and how will this share be apportioned between administrative expenses and adaptation?

- A "share of the proceeds" should be a part of the CERs resulting from a project activity, be determined in advance and be applied on a predictable basis.
- The apportionment between administrative expenses and adaptation funds cannot be determined until the institutional and operational structure of the CDM is determined. The lower the administrative costs, however, the greater amount of funds could be available for adaptation.

15. How will the responsibility of a Party be ensured over the private/public entities authorized by the Party to be involved in CDM projects?

- It will be up to the national system of an Annex I Party to ensure that any entities it authorizes to participate in CDM do so in a manner consistent with relevant Protocol provisions and rules/guidelines adopted thereunder.
- Responsibility for compliance with Protocol obligations ultimately rests with the Party, not with entities which may have been authorized nationally to participate.

16. How to ensure that CDM projects are equitably distributed so as to benefit all developing country parties, in particular the least developed country parties, and that the distribution of projects does not exacerbate existing regional/sub regional imbalances?

- The Secretariat should be requested to report at regular intervals to the COP/moP on the regional distribution of CDM projects.

- In addition, Parties should be encouraged to assist developing country Parties in capacity-building and other activities to facilitate utilization of the CDM in potential host countries, based on requests for such assistance from such countries. Some such activities are already underway, but further capacity building should be encouraged as the CDM is being further elaborated.

- The CDM is a market-based mechanism, and investment decisions (particularly from the private sector) will influence the distribution of CDM projects. Developing countries can influence the distribution of CDM project activities by promoting an investment climate that will encourage the development of CDM projects within their borders.

17. How will it be ensured that the financing for CDM projects shall be additional to ODA and other international funding, additional to and separate from the financial obligations under GEF, and additional to the financial obligation of the Parties as provided in the Convention and the Protocol?

- It is expected that the bulk of CDM financing will come from the private sector, in which case the issue of ODA funding and financial obligations under the Framework Convention does not arise.

- Further, the establishment of the CDM would not alter in any way the funding obligations of Annex I Parties under the Framework Convention. In the case where a Party government were to participate in the CDM, it could not "double count" CDM funding as also in implementation of its funding obligations under Article 4.3 of the Framework Convention.

18. How will the additional economic benefits, if any, of a CDM project be shared equitably between the participating Parties?

- It is not entirely clear what is meant by "additional economic benefits" in this question (a term not found in Article 12). However, the share of benefits from project activities is entirely a matter to be resolved through negotiations between the Parties or private entities involved in the specific project.

19. How will the participating Parties report their CDM projects to the COP/mop?

- Unlike in Article 6, Article 12 of the Protocol does not specifically address reporting of project activities or CERs resulting from individual projects.

- The use of certified emissions reductions from CDM project activities to meet Article 3 commitments will be reported pursuant to Article 7 of the Protocol; more detailed reporting requirements may be part of the modalities/procedures to be adopted under Article 12.7, to the extent they relate to auditing and verification.

20. What are the implications of Article 12.10 of the Protocol?

- Article 12.10 provides for the accrual of credits from 2000 to the beginning of the first commitment period.

- The provision:

  - gives an incentive to Parties and their private entities to start projects early, which would be of benefit to both Annex I and non-Annex I countries, as well as the atmosphere;

  - provides for investments and new technologies in non-Annex I countries earlier than during the first commitment period;

  - will provide a share of proceeds from project activities that will assist vulnerable developing country Parties to meet the costs of adaptation sooner.

- Recognizing that the modalities, procedures, and institutions necessary for the operation of the CDM may not be operational until after the year 2000, it should be made clear that operational entities may retroactively certify emission reductions obtained from the year 2000 resulting from a project activity begun before the CDM is operational, provided the emission reductions meet any applicable criteria.

AIJ Pilot Phase

Although a question section on the AIJ Pilot Phase was not included in the G-77 MISC.1/Add. 5 document, we have provided additional comments on this issue:

What are the next steps for the AIJ pilot phase?

- Parties are in the process of submitting their third report on Activities Implemented Jointly to the UNFCCC. These reports will provide the foundation on which the UNFCCC Secretariat will prepare a synthesis report for consideration at COP4, leading to a decision on the AIJ pilot phase.

- To move toward a decision to continue or end the pilot phase, the following steps are necessary:

  - Prepare a synthesis report on progress of the AIJ pilot phase to include discussion of methodological issues, baseline calculations, potential and actual emission reductions from projects, geographic and sectoral distribution of projects, institutional structures established in Annex I and non-Annex I Parties, and lessons learned;

  - Solicit comments from Parties on the Synthesis report in advance of COP4 and prepare a report on Party submissions;

- Solicit comments from Parties on the Uniform Reporting Format, and prepare a report for consideration;

- Between COP4 and COP5, a final assessment of the AIJ Pilot Phase could be carried out to summarize the experience gained. Such an assessment could be carried out by the Secretariat based on a decision by COP4, and should include procedures for further inputs from Parties, as well as from major groups outside Governments.

International emissions trading, Article 17

1. **How will the emission rights and entitlements of developed country Parties be determined and created for trading emissions? Will this be consistent with the principle of equity keeping in view the historical and current responsibility of developed countries to climate change and the ultimate objective of the Convention?**

- The question appears to contemplate some further negotiation concerning the allocations from which IET begins. The allocations from which IET begins are the assigned amounts reflected in the Protocol.

- The assigned amounts in the Kyoto Protocol were negotiated so as to reflect enhanced developed country responsibilities (in that they do not apply to developing countries) and to reflect "equity" (in that they are differentiated in light of various equitable considerations).

If Article 3 principles of the Framework Convention are to be invoked in the context of IET, it should be noted that Article 3.3 provides that "policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost." IET certainly provides the opportunity to implement greenhouse gas emissions targets at the lowest possible cost.

2. **How to ensure that any emissions trading between the developed country Parties shall be supplemental to domestic actions for the purpose of meeting their quantified emission limitation and reduction commitments?**

- Please refer to the answer given for Question 2 in the General Section.

3. **How to ensure that emissions trading between developed country Parties will lead to real and verifiable limitation and reduction of GHG emissions for meeting the objective of the Convention, and contributing to the protection of the environment?**

- Please refer to the answer given for Question 3 in the General Section.

- In addition:

  - Accuracy of measurement and reporting by Annex I Parties is critical to the successful implementation of the Protocol's target obligations, regardless of IET. Prompt work on measurement and reporting guidelines is therefore of high priority.

  - IET will not have adverse environmental effects. Trading will serve to reallocate existing assigned amounts among Annex I Parties, with the aggregate obligation of Annex I Parties remaining constant. Much more likely is that emissions trading will greatly contribute to environmental protection by having enabled Parties to adopt more ambitious targets with trading than otherwise would have been the case, encouraging Parties to ratify the Protocol, and enabling cost-effective compliance with Article 3 commitments.

  - Some have expressed concern that some Parties will have "extra" emissions allowances which should not be traded because that would permit emissions that would not otherwise occur. Apart from the technical and administrative problems that such an approach would entail (and the fact that the Protocol permits such trading), it is simply not true that the trading of such allowances would lead to higher emissions than would be the case in the absence of trading, because a Party with "extra" emissions allowances would in any event be allowed to "bank" such allowances under Article 3.13 for use in a subsequent commitment period.

4. What will be the environmental or economic impacts in any area due to emissions trading between developed country Parties?

- The environmental aspects are addressed in the response to question 3 above.

- From an economic point of view, IET among Annex I countries should lead to emissions reductions where abatement costs are lowest, thus minimizing the economic impacts. IET should provide the greatest global benefit by maximizing the use of limited financial resources. The voluntary nature of participation generally in the trading system, as well as in each trade in particular, in effect ensures that each of the participants will be made better off because Parties will only choose to trade if and when it is to their advantage to do so.

5. How to ensure that any emissions trading between developed country Parties fully reflects the principle of equity between developed and developing countries?

- IET, in that it only reallocates assigned amounts and does not change the overall assigned amount of Annex I Parties, will not alter the "equity" between developed and developing countries that was established by adopting the Kyoto Protocol.

6. **How to ensure that emissions trading between developed country Parties shall conform to the principles, modalities, rules, and guidelines including any compliance procedure to be defined by the COP?**

- Views on this matter are contained in detail in the Non-Paper, FCCC/SB/1998/MISC.1/Add.1/Rev.1.

- Once principles, modalities, etc. were adopted under Article 17, they would govern IET and Annex I Parties would be bound to follow them.

- To the extent that an Annex I Party chose to allow the participation of its private sector, it would be the national responsibility of that Party to ensure that such participation was consistent with any Article 17 rules, etc.

- Apart from any compliance procedure that may ultimately become effective pursuant to Article 18, the trading rules under Article 17 could (and should) provide appropriate compliance-related elements, in particular for verification, reporting and accountability. For example,

  - there should be linkages between the ability to trade and being in compliance with measurement and reporting obligations under Articles 5 and 7, as well as maintaining appropriate national recording systems;

  - there should be annual reporting on trading activity;

  - there should be public accessibility to emissions and assigned amount data;

  - there needs to be an assessment for compliance at the end of the commitment period, with appropriate disincentives particularly relevant to IET built into the system.

- One disincentive under the trading rules could be to deny or to restrict the right of a Party (and therefore its legal entities) to transfer assigned amounts if it is found to be in breach of the trading rules and/or is no longer in compliance with the conditions for participation in the system.

- We look forward to a full exchange of views on the principles, modalities, rules and guidelines for IET at COP4, as requested by decision 1/CP.3.

PAPER NO. 7: POLAND

VIEWS ON THE MECHANISMS REFERRED TO IN DOCUMENT FCCC/SB/1998/CRP.2

1. Considering similarities of all flexible mechanisms (Articles 6, 12 and 17), their common elements should be clearly defined, distinguished and later discussed together.

2. According to Article 12.10 of the Kyoto Protocol, Clean Development Mechanism can start from the year 2000. Therefore elaboration of guidelines and rules for its implementation is indispensable and should have priority. Rules and guidelines should be accepted by CoP 5 in 1999. The introduction of CDM before acceptance of new principles isn't advisable.

3. Considering rules for all mechanisms one should take into account first of all methodological and institutional aspects. Political problems can be discussed later.

4. In accordance with protocol provisions, mechanisms have to be additional to activities taken by the Parties. Poland supports EU position that determination of quantitative criterion of additionality is indispensable. We believe however that the first step in negotiations and basis for establishment of such criterion should be proposals by all Annex I Parties based on their political decisions. According to us additionality should be determined in flexible way and may differ for different Parties, depending on their national circumstances.

5. JI pilot phase (AIJ) did not allow to gather appropriate experience to begin joint implementation activities. Therefore the JI pilot phase should be continued at least to MOP 1.

6. Emissions trading should be formed by market mechanisms. Launching a pilot phase is advisable to gain adequate experiences by governments and companies. Gradual development and implementation of rules for this mechanism is indispensable. Domestic and international markets should be developed simultaneously. In our opinion emissions trading should be admissible for all Annex B Parties.

7. By the time of establishment of stable market for emissions trading, purchase emission should be used only for own need of the Party and cannot be subject to transfer to third Parties or speculations.

PAPER NO. 8: SWITZERLAND

AGENDA ITEM 4(F): ACTIVITIES IMPLEMENTED JOINTLY UNDER THE PILOT PHASE (DECISION 5/CP.1)

Switzerland believes that COP4 should take a decision to review the experience of the pilot phase for activities implemented jointly (AIJ) in order that COP5 can take a decision on the conclusion of the pilot phase. Our initial contribution to this process is the draft of a possible COP4 conclusion presented below.

One important question not dealt with in our proposed decision is to what extent the review should involve NGOs, project developers, local populations affected by the projects and other stakeholders and how such inputs could be sought/incorporated into the review process. We would welcome a dialogue on this issue with other Parties and interested groups prior to COP4.

Draft Decision CP.4

Activities implemented jointly under the pilot phase

The Conference of the Parties,

Recalling that the Conference of the Parties shall, at its annual session, review the progress of the pilot phase for activities implemented jointly with a view to taking appropriate decisions on the continuation of the pilot phase,

Recalling that in so doing, the Conference of the Parties shall take into consideration the need for a comprehensive review of the pilot phase in order to take a conclusive decision on the pilot phase and the progression beyond that, no later than the end of the present decade,

1. *Takes note* of the synthesis report on activities implemented jointly prepared by the secretariat (FCCC/CP/1998/2) and of the information contained in document FCCC/CP/1998/INF.3;

2. *Decides* to conduct a review of the pilot phase in accordance with decision 5/CP.1, including consideration of institutional, procedural and methodological aspects as well as performance, impact and operational questions.

3. *Further decides* that the review will address the following points:

(a) Emissions reductions achieved through the projects and the associated costs, including a breakdown of transaction costs.

(b) Consistency of projects with the criteria in decision 5/CP.1, based on a synthesis of the information included in the reports submitted by Parties using the uniform reporting format and other available assessments.

(c) Impact of projects on national standards/best practices.

(d) Contribution of projects to capacity building, institutional strengthening and stakeholder participation.

(e) Any problems encountered in using the uniform reporting format to report on national programmes and AIJ project activities and recommendations for improvements, as appropriate (e.g. expand URF to request information on AIJ projects that were rejected).

(f) Any difficulties encountered by host country Parties in ensuring that AIJ are compatible with and supportive of their environment and development priorities and strategies.

(g) Methodological progress made by the secretariat in developing practical options for each of the items in the indicative list of methodological issues in paragraph 3(d) of the conclusions regarding activities implemented jointly under the pilot phase of the 5th session of the SBSTA (FCCC/SBSTA/1997/4).

(h) Experience gained with monitoring and verification.

(i) Recommendations for guidelines and methodologies related to project-based mechanisms under Art. 6 and 12 of the Kyoto Protocol or further work required, as appropriate, in particular with respect to project eligibility criteria, baseline determination, project monitoring and verification procedures, long-term effects and benefits sharing.

(j) Recommendations regarding a conclusive decision on the pilot phase and the progression beyond that.

4. *Further decides* that:

(a) With the assistance of the secretariat, the Subsidiary Body for Scientific and Technological advice will be responsible for reviewing items 3(a) and 3(c)-(i) and the Subsidiary Body for Implementation will be responsible for reviewing items 3(b) and 3(j).

(b) A joint progress report on the review process will be made at the 10th sessions of the SBSTA and the SBI, and the final results of the review will be submitted for consideration at the 11th sessions of these bodies.

(c) The Conference of the Parties at its Fifth session shall consider the results of the review and take a decision on the pilot phase and the progression beyond that.

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