Clinton Administration
Climate Change Documents

Final Task Force Releases & Other Useful Papers

October 1997-August 1999

Clinton Administration-Climate Change Documents

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Divider Title: _____

ED 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 [illegible]cember 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,

Recog[redacted]ne 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:

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.

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

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.

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.

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) ...note 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 national 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;

1/ This includes policies and measures adopted by regional economic integration organizations.

(c) [redacted]ulations 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 inclu[redacted] Annex II shall provide new and additional financial resources to meet t[redacted]greed 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.

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.

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;

(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.

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.

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.

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.

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) [redacted]ther information that the Party considers relevant to the a[redacted]evement 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.

From its first session, the Conference of the Parties shall arrange for [redacted] provision to developing country Parties of technical and financial support, [redacted] 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.

[redacted]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.

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.

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.

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.

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.

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.

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.

DEPOSITARY

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

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.

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.

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.

In their instruments of ratification, acceptance, approval or accessi[redacted]nal economic integration organizations shall declare the extent of their com[redacted]ce 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.

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.

RESERVATIONS

No reservations may be made to the Convention.

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.

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

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

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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
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2

Divider Title: _____

THE WHITE HOUSE
Office of the Press Secretary

For Immediate Release October 22, 1997

REMARKS BY THE PRESIDENT
ON GLOBAL CLIMATE CHANGE

National Geographic Society
Washington, D.C.

2:57 P.M. EDT

THE PRESIDENT: Thank you very much. Mr. Murphy, Mr. Vice President, to all of you who are here. I thank especially the members of Congress who are here, the leaders of labor and business who are here, all the members of the administration, and especially the White House staff members that the Vice President mentioned and the Secretary of Energy, the Administrator of the EPA, and the others who have helped us to come to this moment.

On the way in here we were met by the leaders of the National Geographic, and I complimented them on their recent two-part series on the Roman Empire. It's a fascinating story of how the Empire rose, how it sustained itself for hundreds of years, why it fell, and speculations on what, if any, relevance it might have to the United States and, indeed, the West.

And one of the gentlemen said, well, you know, we got a lot of interesting comments on that, including a letter referencing a statue we had of the bust of Emperor Vespasian. And one of our readers said, why in the world did you put a statue of Gene Hackman in a piece on the Roman Empire? (Laughter.) And I say that basically to say, in some senses, the more things change, the more they remain the same. (Laughter.)

For what sustains any civilization, and now what will sustain all of our civilizations, is the constant effort at renewal, the ability to avoid denial and to proceed into the future in a way that is realistic and humane, but resolute. Six years ago tomorrow, not long after I started running for President, I went back to my alma mater at Georgetown and began a series of three speeches outlining my vision for America in the 21st century -- how we could keep the American Dream alive for all of our people, how we could maintain America's leadership for peace and freedom and prosperity, and how we could come together across the lines that divide us as one America.

And together, we've made a lot of progress in the last nearly five years now that the Vice President and I have been privileged to work at this task. At the threshold of a new century, our economy is thriving, our social fabric is mending, we've helped to lead the world toward greater peace and cooperation.

I think this has happened, in no small measure, in part because we had a different philosophy about the role of government. Today, it is smaller and more focused and more oriented toward giving people the tools and the conditions they need to solve their own problems and toward working in partnership with our citizens. More important, I believe it's happened because we made tough choices but not false choices.

On the economy, we made the choice to balance the budget and to invest in our people and our future. On crime, we made the choice to be tough and smart about prevention and changing the conditions in which crime occurs. On welfare, we made the choice to require work, but also to support the children of people who have been on welfare. On families, we made the choice to help parents find more and better jobs and to have the necessary time and resources for their children. And on the environment, we made the choice to clean our air, water, and land, to improve our food supply, and to grow the economy.

This kind of commonsense approach, rooted in our most basic values and our enduring optimism about the capacity of free people to meet the challenges of every age must be brought to bear on the work that remains to pave the way for our people and for the world toward a new century and a new millenium.

Today we have a clear responsibility and a golden opportunity to conquer one of the most important challenges of the 21st century -- the challenge of climate change -- with an environmentally sound and economically strong strategy, to achieve meaningful reductions in greenhouse gases in the United States and throughout the industrialized and the developing world. It is a strategy that, if properly implemented, will create a wealth of new opportunities for entrepreneurs at home, uphold our leadership abroad, and harness the power of free markets to free our planet from an unacceptable risk; a strategy as consistent with our commitment to reject false choices.

America can stand up for our national interest and stand up for the common interest of the international community. America can build on prosperity today and ensure a healthy planet for our children tomorrow.

In so many ways the problem of climate change reflects the new realities of the new century. Many previous threats could be met within our own borders, but global warming requires an international solution. Many previous threats came from single enemies, but global warming derives from millions of sources. Many previous threats posed clear and present danger; global warming is far more subtle, warning us not with roaring tanks or burning rivers but with invisible gases, slow changes in our surroundings, increasingly severe climatic disruptions that, thank God, have not yet hit home for most Americans. But make no mistake, the problem is real. And if we do not change our course now, the consequences sooner or later will be destructive for America and for the world.

The vast majority of the world's climate scientists have concluded that if the countries of the world do not work together to cut the emission of greenhouse gases, then temperatures will rise and will disrupt the climate. In fact, most scientists say the process has already begun. Disruptive weather events are increasing. Disease-bearing insects are moving to areas that used to be too cold for them. Average temperatures are rising. Glacial formations are receding.

Scientists don't yet know what the precise consequences will be. But we do know enough now to know that the Industrial Age has dramatically increased greenhouse gases in the

atmosphere, where they take a century or more to dissipate; and that the process must be slowed, then stopped, then reduced if we want to continue our economic progress and preserve the quality of life in the United States and throughout our planet. We know what we have to do.

Greenhouse gas emissions are caused mostly by the inefficient burning of coal or oil for energy. Roughly a third of these emissions come from industry, a third from transportation, a third from residential and commercial buildings. In each case, the conversion of fuel to energy use is extremely inefficient and could be made much cleaner with existing technologies or those already on the horizon, in ways that will not weaken the economy but in fact will add to our strength in new businesses and new jobs. If we do this properly, we will not jeopardize our prosperity -- we will increase it.

With that principle in mind, I'm announcing the instruction I'm giving to our negotiators as they pursue a realistic and effective international climate change treaty. And I'm announcing a far-reaching proposal that provides flexible market-based and cost-effective ways to achieve meaningful reductions here in America. I want to emphasize that we cannot wait until the treaty is negotiated and ratified to act. The United States has less than 5 percent of the world's people, enjoys 22 percent of the world's wealth, but emits more than 25 percent of the world's greenhouse gases. We must begin now to take out our insurance policy on the future.

In the international climate negotiations, the United States will pursue a comprehensive framework that includes three elements, which, taken together, will enable us to build a strong and robust global agreement. First, the United States proposes at Kyoto that we commit to the binding and realistic target of returning to emissions of 1990 levels between 2008 and 2012. And we should not stop there. We should commit to reduce emissions below 1990 levels in the five-year period thereafter, and we must work toward further reductions in the years ahead.

The industrialized nations tried to reduce emissions to 1990 levels once before with a voluntary approach, but regrettably, most of us -- including especially the United States -- fell short. We must find new resolve to achieve these reductions, and to do that we simply must commit to binding limits.

Second, we will embrace flexible mechanisms for meeting these limits. We propose an innovative, joint implementation system that allows a firm in one country to invest in a project that reduces emissions in another country and receive credit for those reductions at home. And we propose an international system of emissions trading. These innovations will cut worldwide pollution, keep costs low, and help developing countries protect their environment, too, without sacrificing their economic growth.

Third, both industrialized and developing countries must participate in meeting the challenge of climate change. The industrialized world must lead, but developing countries also must be engaged. The United States will not assume binding obligations unless key developing nations meaningfully participate in this effort.

As President Carlos Menem stated forcefully last week when I visited him in Argentina, a global problem such as climate change requires a global answer. If the entire industrialized world reduces emissions over the next several decades, but emissions from the developing world continue to grow at their current pace, concentrations of greenhouse gasses in the atmosphere will continue to climb. Developing countries have an opportunity to chart a different energy future consistent with their growth potential and their legitimate economic

aspirations.

What Argentina, with dramatic projected economic growth, recognizes is true for other countries as well: We can and we must work together on this problem in a way that benefits us all. Here at home, we must move forward by unleashing the full power of free markets and technological innovations to meet the challenge of climate change. I propose a sweeping plan to provide incentives and lift road blocks to help our companies and our citizens find new and creative ways of reducing greenhouse gas emissions.

First, we must enact tax cuts and make research and development investments worth up to $5 billion over the next five years -- targeted incentives to encourage energy efficiency and the use of cleaner energy sources.

Second, we must urge companies to take early actions to reduce emissions by ensuring that they receive appropriate credit for showing the way.

Third, we must create a market system for reducing emissions wherever they can be achieved most inexpensively, here or abroad; a system that will draw on our successful experience with acid rain permit trading.

Fourth, we must reinvent how the federal government, the nation's largest energy consumer, buys and uses energy. Through new technology, renewable energy resources, innovative partnerships with private firms and assessments of greenhouse gas emissions from major federal projects, the federal government will play an important role in helping our nation to meet its goal. Today, as a down payment on our million solar roof initiative, I commit the federal government to have 20,000 systems on federal buildings by 2010.

Fifth, we must unleash competition in the electricity industry, to remove outdated regulations and save Americans billions of dollars. We must do it in a way that leads to even greater progress in cleaning our air and delivers a significant down payment in reducing greenhouse gas emissions. Today, two-thirds of the energy used to provide electricity is squandered in waste heat. We can do much, much better.

Sixth, we must continue to encourage key industry sectors to prepare their own greenhouse gas reduction plans. And we must, along with state and local government, remove the barriers to the most energy efficient usage possible. There are ways the federal government can help industry to achieve meaningful reductions voluntarily, and we will redouble our efforts to do so.

This plan is sensible and sound. Since it's a long-term problem requiring a long-term solution, it will be phased in over time. But we want to get moving now. We will start with our package of strong market incentives, tax cuts, and cooperative efforts with industry. We want to stimulate early action and encourage leadership. And as we reduce our emissions over the next decade with these efforts, we will perform regular reviews to see what works best for the environment, the economy, and our national security.

After we have accumulated a decade of experience, a decade of data, a decade of technological innovation, we will launch a broad emissions trading initiative to ensure that we hit our binding targets. At that time, if there are dislocations caused by the changing patterns of energy use in America, we have a moral obligation to respond to those to help the workers and the enterprises affected -- no less than we do today by any change in our economy which affects people through no fault of their own.

This plan plays to our strengths -- innovation, creativity, entrepreneurship. Our companies already are showing the way by developing tremendous environmental technologies and implementing commonsense conservation solutions.

Just yesterday, Secretary Pena announced a dramatic breakthrough in fuel cell technology, funded by the Department of Energy research -- a breakthrough that will clear the way toward developing cars that are twice as efficient as today's models and reduce pollution by 90 percent. The breakthrough was made possible by our path-breaking partnership with the auto industry to create a new generation of vehicles. A different design, producing similar results, has been developed by a project funded by the Defense Advanced Research Products Agency and the Commerce Department's National Institute of Science and Technology.

The Energy Department discovery is amazing in what it does. Today, gasoline is used very inefficiently in internal combustion engines -- about 80 percent of its energy capacity is lost. The DOE project announced yesterday by A.D. Little and Company uses 84 percent of the gasoline directly going into the fuel cell. That's increased efficiency of more than four times traditional engine usage.

And I might add, from the point of view of all the people that are involved in the present system, continuing to use gasoline means that you don't have to change any of the distribution systems that are out there. It's a very important, but by no means the only, discovery that's been made that points the way toward the future we have to embrace.

I also want to emphasize, however, that most of the technologies available for meeting this goal through market mechanisms are already out there -- we simply have to take advantage of them. For example, in the town of West Branch, Iowa, a science teacher named Hector Ibarra challenged his 6th graders to apply their classroom experiments to making their school more energy efficient. The class got a $14,000 loan from a local bank and put in place easily available solutions. The students cut the energy use in their school by 70 percent. Their savings were so impressive that the bank decided to upgrade its own energy efficiency. (Laughter.)

Following the lead of these 6th graders -- (laughter) -- other major companies in America have shown similar results. You have only to look at the proven results achieved by companies like Southwire, Dow Chemical, Dupont, Kraft, Interface Carpetmakers, and any number of others in every sector of our economy to see what can be done.

Our industries have produced a large group of efficient new refrigerators, computers, washer/dryers, and other appliances that use far less energy, save money, and cut pollution. The revolution in lighting alone is truly amazing. One compact fluorescent lamp, used by one person over its lifetime, can save nearly a ton of carbon dioxide emissions from the atmosphere, and save the consumer money.

If over the next 15 years everyone were to buy only those energy-efficient products marked in stores with EPA's distinctive "Energy Star" label, we could shrink our energy bills by a total of about $100 billion over the next 15 years and dramatically cut greenhouse gas emissions.

Despite these win-win innovations and commitments that are emerging literally every day, I know full well that some will criticize our targets and timetables as too ambitious. And, of course, others will say we haven't gone far enough. But before the debate begins in earnest, let's remember that over the past generation, we've produced tremendous environmental

progress, including in the area of energy efficiency, at far less expense than anyone could have imagined. And in the process, whole new industries have been built.

In the past three decades, while our economy has grown, we have raised, not lowered, the standards for the water our children drink. While our factories have been expanding, we have required them to clean up their toxic waste. While we've had record numbers of new homes, our refrigerators save more energy and more money for our consumers.

In 1970, when smog was choking our cities, the federal government proposed new standards for tailpipe emissions. Many environmental leaders claim the standards would do little to head off catastrophe. Industry experts predicted the cost of compliance would

devastate the industry. It turned out both sides were wrong. Both underestimated the ingenuity of the American people. Auto makers comply with today's much stricter emissions standards for far less than half the cost predicted, and new cars emit on average only 5 percent of the pollutants of the cars built in 1970.

We've seen this pattern over and over and over again. We saw it when we joined together in the '70s to restrict the use of the carcinogen, vinyl chloride. Some in the plastics industry predicted massive bankruptcies, but chemists discovered more cost-effective substitutes and the industries thrived. We saw this when we phased out lead and gasoline. And we see it in our acid rain trading program -- now 40 percent ahead of schedule -- at costs less than 50 percent of even the most optimistic cost projections. We see it as the chlorofluorocarbons are being taken out of the atmosphere at virtually no cost in ways that apparently are beginning finally to show some thickening of the ozone layer again.

The lesson here is simple: Environmental initiatives, if sensibly designed, flexibly implemented, cost less than expected and provide unforseen economic opportunities. So while we recognize that the challenge we take on today is larger than any environmental mission we have accepted in the past, climate change can bring us together around what America does best -- we innovate, we compete, we find solutions to problems, and we do it in a way that promotes entrepreneurship and strengthens the American economy.

If we do it right, protecting the climate will yield not costs, but profits; not burdens, but benefits; not sacrifice, but a higher standard of living. There is a huge body of business evidence now showing that energy savings give better service at lower cost with higher profit. We have to tear down barriers to successful markets and we have to create incentives to enter them. I call on American business to lead the way, but I call upon government at every level -- federal, state, and local -- to give business the tools they need to get the job done, and also to set an example in all our operations.

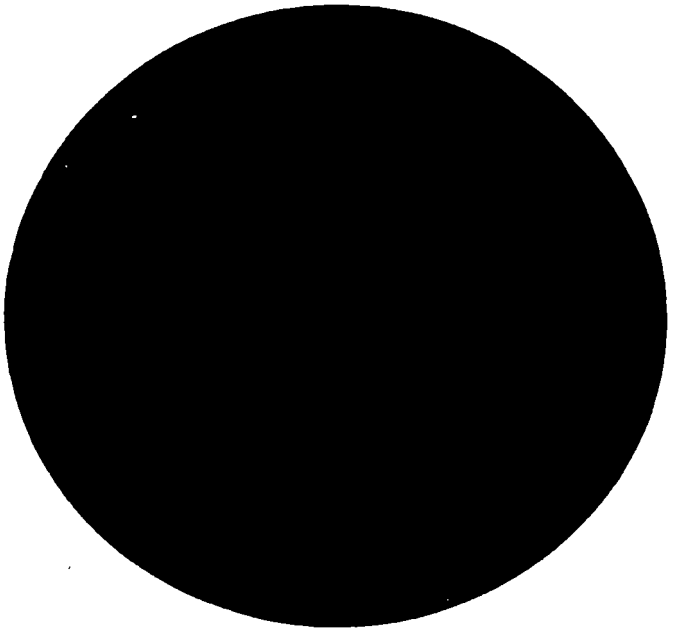
And let us remember that the challenge we face today is not simply about targets and timetables. It's about our most fundamental values and our deepest obligations.

Later today, I'm going to have the honor of meeting with Ecumenical Patriarch Bartholomew I, the spiritual leader of 300,000,000 Orthodox Christians -- a man who has always stressed the deep obligations inherent in God's gift to the natural world. He reminds us that the first part of the word "ecology" derives from the Greek word for house. In his words, in order to change the behavior toward the house we all share, we must rediscover spiritual linkages that may have been lost and reassert human values. Of course, he is right. It is our solemn obligation to move forward with courage and foresight to pass our home on to our children and future generations.

I hope you believe with me that this is just another challenge in America's long history, one that we can meet in the way we have met all past challenges. I hope that you believe with me that the evidence is clear that we can do it in a way that grows the economy, not with denial, but with a firm and glad embrace of yet another challenge of renewal. We should be glad that we are alive today to embrace this challenge, and we should do it secure in the knowledge that our children and grandchildren will thank us for the endeavor.

Thank you very much. (Applause.)

PRESIDENT CLINTON ANNOUNCES THE UNITED STATES CLIMATE CHANGE POLICY



NATIONAL GEOGRAPHIC SOCIETY

GILBERT H. GROSVENOR AUDITORIUM

Washington, D.C.

October 22, 1997

PRESIDENT CLINTON'S CLIMATE CHANGE PROPOSAL

October 22, 1997

Global climate change is the premier environmental challenge and opportunity of the 21st century, and the risks it poses justify sensible preventive steps. Addressing this issue is one of the United States' greatest imperatives, for this and future generations. Recognizing the solid foundation of climate science, President Clinton is committed to strong and sensible action to reduce greenhouse gas emissions -- including realistic and binding emissions targets.

Key elements of President Clinton's climate change proposal include:

- **Binding Targets to Reach 1990 Emissions Levels by 2008-2012 and Reductions Below 1990 Levels in the 5-Year Period That Follows.** A critical component of the President's comprehensive framework is a realistic, achievable, and binding target of reducing greenhouse emissions to 1990 levels by 2008-2012 and reductions below 1990 levels in the 5-year period that follows.

- **$5 Billion Program of Tax Cuts and R&D for New Technologies.** To spur energy efficiency and the development of new technologies, the President proposes a major new package of tax cuts and R&D spending amounting to $5 billion over five years.

- **Industry-by-Industry Consultations and Early Credit.** The Administration challenges key industries to prepare plans over the next 9 months on how they can best reduce emissions. To provide an incentive for near-term actions to cut emissions, the President is committed to ensuring appropriate rewards for firms that act early.

- **Developing Countries Must Participate.** Climate change is a global problem, and requires a global solution. That's why the United States has spear-headed joint implementation projects, and the President has committed that the United States will not adopt binding obligations without developing country participation.

- **Broad-Based Domestic and International Emissions Trading System Begins After A Decade of Experience Has Accumulated.** The President is committed to a market-based emissions trading system, both domestically and internationally, that will harness the power of the market to reduce emissions to 1990 levels by 2008-2012. The trading system would begin after a decade's worth of experience with tax incentives, R&D, early credit, electricity restructuring, Federal efforts, and other measures.

BINDING TARGETS: The U.S. binding target is realistic: It seeks to return U.S. emissions to 1990 levels in the period 2008-2012 and reduce them further thereafter. We reject the European proposal for more stringent early reductions, as well as the "do-nothing" approach of some interests. The target is achievable: By providing incentives for early action to reduce emissions, attacking domestic energy inefficiencies, and putting in place a market-based emissions trading system, we can reach 1990 levels in the proposed time frame with minimal economic costs. And it is meaningful: Achieving 1990 levels in the period 2008-2012 would amount to almost a 30 percent reduction off a business-as-usual path, an important first step on the road toward stabilizing greenhouse gas concentrations in the atmosphere.

SOLID PRINCIPLES: The President's five climate change principles include: that the policies should be guided by science, rely on market-based, common-sense tools, that we should seek win-win solutions, that global participation is essential to addressing the global problem of climate change, and that we must have regular common-sense reviews of the economics and science of climate change.

SOUND AND SENSIBLE THREE-STAGE APPROACH: Reflecting his five key principles, the President's plan includes three stages: Stage 1 includes priming the pump through programs such as R&D, tax incentives, incentives for early action, and Federal leadership, and industry consultations. Stage 2 builds upon the first stage by including a review and evaluation in preparation for the permit trading system. Stage 3 -- which does not occur for a decade -- involves meeting binding targets through a domestic and international emissions trading program. The President is committed to working with labor and Congress to insure that we give proper assistance to any workers dislocated by the changes in energy usage inherent in any climate change plan.

INITIAL ACTION PLAN: The President's immediate action plan includes 9 elements:

1. $5 Billion in Tax Cuts and Federal R&D: To spur energy efficiency and encourage the development and deployment of lower-carbon energy sources, the Administration supports a major new package of tax cuts and R&D spending amounting to $5 billion over five years.

2. Credit for Early Action: To provide an immediate incentive for near-term actions, the President is committed to ensuring that firms acting early are rewarded appropriately.

3. Industry-by-Industry Consultations: The Administration challenges key industry sectors to prepare plans over the next 9 months on how they can best reduce emissions.

4. Encouraging the Use of Energy-Efficient Products: The President will complement his tax incentives, commitment to early action credit, and industry consultations by engaging in a broad-based effort to expand the use of *existing* energy-efficient technologies.

5. Federal Procurement and Energy Use: The Department of Energy will spearhead a comprehensive effort to reduce greenhouse gas emissions from Federal sources.

6. Electricity Restructuring: To deliver a significant downpayment on emission reductions, while saving consumers billions, we will pursue a bold plan for electricity restructuring.

7. Setting a Concentration Goal: The United States supports developing a specific, long-term concentration goal with the assistance of the National Academy of Sciences and other bodies.

8. Bilateral Dialogues: In addition to pursuing agreement in Kyoto, the Administration will pursue bilateral dialogues with key developing countries to promote clean energy.

9. Economics and Science Reviews: The President proposes regular scientific and economic reviews. These reviews will ensure that policy-makers have the best possible information on climate change.

WIN-WIN: There are numerous win-win solutions to reducing carbon emissions. For example, a breakthrough in fuel cell technology announced yesterday will clear the way toward developing cars that are three times as efficient as today's models -- cutting pollution while also cutting driving costs.

INITIAL CLIMATE CHANGE ACTIONS

October 22, 1997

President Clinton has proposed nine immediate actions to begin addressing climate change:

1. Tax Cuts and Federal R&D: To spur energy efficiency and the development of lower-carbon energy sources, the Administration supports a major new package of tax cuts and R&D spending amounting to $5 billion over five years. Many of the ideas from the recent report of the President's Committee on Science and Technology (PCAST) will be considered in constructing this package.

2. Credit for Early Action: To provide an immediate incentive for near-term actions to cut emissions, the Administration is committed to ensuring that firms which act early are rewarded appropriately. We will work with companies to build a program that appropriately rewards those who take prompt and early actions before the beginning of the mandatory emissions budget period in Stage 3.

3. Industry-by-Industry Consultations: The Administration challenges key industry sectors to prepare plans over the next 9 months on how they can best reduce emissions, including how the Federal government can remove regulatory hurdles that discourage energy efficiency. The Administration will work in partnership with industry to develop sensible efficiency standards in a variety of areas.

4. Encouraging the Use of Energy-Efficient Products: As the Department of Energy's 5-Labs study illustrates, many existing technologies produce win-win solutions to reducing carbon emissions -- but nonetheless are still not widely used. The President is committed to expanding their reach. He will therefore complement his other programs by engaging in a broad-based effort to expand the use of *existing* energy-efficient technologies -- while also spurring the development of *new* technologies.

5. Federal Procurement and Energy Use: To reduce greenhouse gas emissions from Federal sources, DOE will spearhead a comprehensive effort that includes expanded performance contracting to make Federal buildings more energy-efficient, improved Federal procurement of energy-efficient technology, and partnerships to improve the energy efficiency of Federal aircraft, ships and vehicles. Federal agencies will also be called upon to assess emissions in major initiatives.

6. Electricity Restructuring: To spur further efforts to clean our air and deliver a downpayment on greenhouse gas emission reductions, while saving consumers billions, we will pursue a bold plan to restructure the energy sector. It is time to change the rules that are often more than 70 years old -- stifling innovations that can save money and impede newer, cleaner technologies.

7. Setting a Concentration Goal for Greenhouse Gases in the Atmosphere: The goal of the existing climate treaty is to stabilize concentrations of greenhouse gases, but the specific concentration has never been defined. The U.S. supports developing a specific, long-term goal, with the assistance of the National Academy of Science and other appropriate bodies.

8. Bilateral Dialogues: In addition to pursuing agreement in Kyoto, the Administration will pursue bilateral dialogues with key developing countries to promote clean energy.

9. Economics and Science Reviews: The President proposes regular scientific and economic reviews. to ensure that policy-makers have the best possible information on climate change.

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PRESIDENT CLINTON'S FIVE CLIMATE CHANGE PRINCIPLES

October 22, 1997

Global climate change is the premier environmental challenge and opportunity of the 21st century, and the risks it poses justify sensible preventive steps. Addressing this issue is one of the United States' greatest imperatives, for this and future generations. Recognizing the solid foundation of climate science, President Clinton is committed to strong and sensible action to reduce greenhouse gas emissions -- including realistic and binding emissions targets.

President Clinton's climate change plan is based on **five key principles:**

- **Guided by science.** The vast majority of the world's scientists have concluded that if the countries of world do not work together to cut greenhouse gas emissions, temperatures will rise and disrupt the global climate. Indeed, most scientists say this process has already begun. But there is much we still don't know about how the climate and human health will react to increased greenhouse gas concentrations. That's why the President's plan includes regular science reviews, to ensure that our policies are guided by the best science available.

- **Market-based, common-sense tools.** We have learned that the costs of protecting the environment is substantially lower if we harness the power of markets to do so. That's why the President's plan emphasizes flexible and market-based mechanisms. His plan includes a domestic and international permit trading system for greenhouse gas emissions, similar to the highly successful permit trading system that has dramatically cut acid rain at a fraction of the predicted cost.

- **Seek win-win solutions**. There are a multitude of win-win solutions to reducing carbon emissions, that can improve our energy efficiency and save consumers money. For example, a breakthrough in fuel cell technology announced yesterday will clear the way toward developing cars that are twice as efficient as today's models -- cutting pollution while also cutting driving costs. The President believes that we must seek such win-win solutions to addressing climate change.

- **Global participation**. Climate change is a global problem, and requires a global solution. A ton of carbon emitted in Argentina has just as much effect on the global climate as a ton of carbon emitted in the United States -- and within the next few decades, emissions from developing countries are expected to exceed those from developed countries. And many win-win opportunities exist to reduce greenhouse gas emissions in developing countries. That's why the United States has spear-headed joint implementation projects and the President has committed that the United States will not adopt binding obligations without developing country participation.

- **Common-sense economic reviews.** Our knowledge of the challenges and opportunities we face will grow over time. Therefore, the President is calling for regular 5-year economic reviews and updates, to ensure that policy-makers, both in the Administration and in Congress, have the best possible information on how the economy is responding to the effort to address climate change, how other countries are performing relative to their own commitments, and how the climate is changing in response to human activities.

THE PRESIDENT'S THREE-STAGE PLAN ON CLIMATE CHANGE

October 22, 1997

Reflecting his five key principles, the President's plan will proceed in three stages:

- **Stage 1: Priming the Pump Through R&D, Tax Incentives, Incentives for Early Action, Federal Leadership, and Industry Consultations.** The first stage of the President's package includes a 9-point action plan -- including $5 billion in tax incentives and spending for R&D and energy efficiency, incentives for early action, a set of Federal government energy initiatives, and industry-by-industry consultations to explore their best ideas on how to reduce emissions in a cost-effective manner (including market-oriented standards for energy efficiency). The first economic review would occur near the end of Stage 1.

- **Stage 2: Review and Evaluation.** The second stage, which would begin around 2004, will build upon the programs adopted in Stage 1, by including a review of our progress and an evaluation of next steps as we move toward a market-based permit trading system for carbon emissions. During this second stage, the details of the permit system would be refined and perhaps tested. Such a permit system is similar in concept to the one that dramatically cut acid rain emissions -- although the scale would be significantly larger than the current acid rain program. The second economic review would occur near the end of Stage 2.

- **Stage 3: Meeting Binding Targets Through Domestic and International Emissions Trading Program.** In the third stage, we would reduce emissions to 1990 levels by 2008-2012, and below 1990 levels in the 5-year period after that, through a market-based domestic and international emissions trading system. Before beginning this third stage, the second economic update and review would allow Congress and the President to evaluate how the economy had responded to a decade's worth of experience in the first two stages of the President's plan. The President is committed to working with labor and Congress to insure that we give proper assistance to any workers dislocated by the changes in energy usage inherent in any climate change plan.

This three-stage program recognizes the long-term nature of the effort to address climate change in three ways:

- By adopting a graduated approach to emissions reductions, it allows us to exploit the tremendous opportunities for win-win reductions first.

- By adopting a system of regular scientific and economic updates and reviews, it allows us to monitor our progress and re-assess our success in reducing emissions, the state of scientific knowledge, and how the economy is responding to our efforts. Only after we have accumulated ten years of experience with the first two stages of the program would we enter the internationally binding period.

- By insisting that the United States will not adopt binding obligations without developing country participation and by emphasizing the importance of an international trading system and joint implementation, we take advantage of low-cost reduction possibilities wherever they occur -- either here or abroad.

COMPREHENSIVE FRAMEWORK FOR EFFECTIVE, SENSIBLE ACTION

October 22, 1997

GREENHOUSE GAS EMISSION REDUCTION TARGET

Under the current international climate change agreement (signed in Rio de Janeiro in 1992), industrialized countries accepted a non-binding emissions reduction goal. Most nations, including the United States, will fall short of meeting it. This fact, coupled with better scientific evidence on the seriousness of the climate change threat, led the U.S. to propose last year that a new agreement set binding limits on emissions. The proposed U.S. emissions target is designed to provide important environmental gains while maintaining strong economic growth. It is:

- **Realistic.** Seeks to return U.S. emissions to 1990 levels in the period 2008-2012 and reduce them further thereafter. Rejects European proposal for more stringent early reductions, as well as the "do-nothing" approach of some interests.

- **Achievable.** By providing incentives for early action to reduce emissions, attacking domestic energy inefficiencies, securing flexible international implementation mechanisms, and putting in place a market-based domestic emissions trading system, the U.S. can reach 1990 levels in the proposed time frame with minimal economic costs.

- **Meaningful.** Achieving 1990 levels in the period 2008-2012 would amount to almost a 30 percent reduction off a business-as-usual path, an important first step on the road toward stabilizing concentrations of greenhouse gases in the atmosphere. Emissions accounting will include all greenhouse gas sources and sinks (including reforestation).

FLEXIBLE, MARKET-BASED IMPLEMENTATION

Just as the effects of climate change will be felt globally, so too are the causes of climate change global in nature. Greenhouse gas emissions do equal harm to the atmosphere whether they come from a coal plant in China or a bus in Boston. For this reason, any regime to reduce greenhouse gases must be global. It must also allow all nations the ability to seek out the most efficient way of reducing emissions so that the greatest gains are achieved at the least cost. For these reasons, the United States strongly supports the inclusion in a new climate change agreement of two innovative, flexible mechanisms for reducing emissions:

- **International Emissions Trading –Using Markets to Lower Costs.** The principle of emissions trading is to use the efficiency of the market place to achieve environmental objectives at the lowest possible cost. Under an international emissions trading regime, a country (or firm) would be able to meet its emissions reduction target by reducing pollution itself, purchasing reductions from another country (or firm) that was able to achieve excess gains, or some combination of both.

- **Joint Implementation –A Global Solution to Low-Cost Reductions.** Joint Implementation (JI) is an innovative, market-based approach for addressing global climate change that uses international partnerships to achieve low-cost reductions in greenhouse gas emissions. Under JI, a company in the United States invests in a project which reduces emissions in another country and uses those reductions as a less expensive means of meeting its own target.

PARTICIPATION OF DEVELOPING COUNTRIES

In addition to its non-binding emissions reduction aim for developed countries, the Rio climate change agreement required all countries to take policies and measures to reduce emissions. Many developing countries have made real strides, through, for example, reducing energy subsidies. Nevertheless, given that developing country emissions will eclipse those from the developed world within several decades, these countries need to do more. Accordingly, the U.S. calls on developing countries to strengthen their existing commitments and to agree that their obligations must increase over time to include binding emissions limits. Our principles include:

- **Global Participation.** All countries must participate. Every nation would be required to take meaningful actions to limit emissions. The U.S. will not assume binding obligations until developing countries agree to participate meaningfully in the challenge of addressing climate change.

- **Equity.** The obligations of poorer and less developed countries should take into account their state of economic development and their relative contribution to the climate change problem.

- **Assistance.** While insisting that developing countries take meaningful actions to address climate change, the U.S. recognizes that many of these countries face significant development challenges that hamper their ability to reduce emissions. President Clinton is reemphasizing his commitment to working with these nations to help build more sustainable energy futures. This includes a $1 billion package of assistance from USAID and a renewed commitment to provide financial assistance through the Global Environment Facility, as well as our pathbreaking joint implementation proposals.

FACT SHEET ON INTERNATIONAL EMISSIONS TRADING

October 22, 1997

Description

The principle of emissions trading is to use the efficiency of the market place to achieve environmental objectives at the lowest possible cost. Under an international emissions trading regime, a country (or firm) would be able to meet its emissions reduction target by reducing pollution itself, purchasing reductions from another country (or firm) that was able to achieve excess gains, or some combination of both.

Given an effective international regime, emissions trading provides a powerful incentive for nations to reduce below the amount required and then sell excess reductions to others who in turn avoid more costly actions. The U.S. has proposed that emissions trading be permitted among all countries that agree to a binding emissions target.

How it would work

Consider a simplified example for how international emissions trading might work. Country A and Country B must reduce emissions by 100 tons each. It might cost each country $1,000 to reduce 100 tons individually for a total cost of $2,000. However, if Country A could reduce its emissions by 200 tons for a total cost of $1,500 and sell half of these reductions to Country B, the overall target would be achieved for $500 less, a savings of 25 percent.

U.S. experience

Emissions trading is being used successfully at the domestic level to reduce sulfur dioxide emissions (which cause acid rain) under the Clean Air Act. Achieving targeted reductions was originally estimated to cost $5 billion annually if traditional controls had been required and $4 billion with emissions trading. A GAO estimate after the initial stage of emissions trading now puts the cost at $2 billion per year, or 60 percent below the original estimate with pollution reductions significantly ahead of schedule. Emissions trading has also been successful in cutting the costs of phasing out leaded gasoline and in curbing the production of chlorofluorocarbons which deplete the ozone layer.

Cost savings

According to the 1997 Economic Report of the President, international emissions trading for carbon dioxide could lower the cost of reductions by 50 percent below the minimum achievable using purely domestic programs.

FACT SHEET ON JOINT IMPLEMENTATION

October 22, 1997

Description

Joint Implementation (JI) is an innovative, market-based approach for addressing global climate change that uses international partnerships to achieve low-cost reductions in greenhouse gas emissions. Under JI, a company in the United States invests in a project which reduces emissions in another country and uses those reductions as a less expensive means of meeting its own target. The U.S. has proposed that a formal regime that gives credit for JI projects be part of a new climate change agreement.

How it would work

Consider the example of a project announced today as part of a pilot program on joint implementation instituted by the United States. Two U.S. companies (Solar Electric Power and Light of Washington, D.C. and Trexler and Associates, Inc of Oak Grove, Illionois) will work with Renewable Energy Services Company of Asia, Ltd. to market and install 812,000 solar home systems in Sri Lanka. These systems will replace the use of kerosene lamps for lighting and the use of diesel-electric charging of lead-acid batteries for powering small home appliances. The result will be a 1.5 million metric ton reduction in greenhouse gas emissions and cleaner energy for tens of thousands of people.

U.S. experience

Under the U.S. pilot program on JI (formed under the existing climate change convention), 28 projects have been approved in 12 countries, including Costa Rica, Bolivia, the Czech Republic, and Russia. These projects span a range of technologies, including solar, geothermal, and wind power; fuel switching for district heating; biomass energy; and reforestation. U.S. companies and organizations already participating include Commonwealth Edison, Wisconsin Electric Power, Kenetech Windpower, Sealweld Corp., American Electric Power, PacificCorp, Detroit Edison, Clean Air Coalition, and many others.

Benefits

Lower costs: JI provides a strong incentive for companies and countries to search the globe for the lowest cost ways of reducing greenhouse gas emissions.

Expanded exports of U.S. technology: The enormous potential for JI projects around the world creates major opportunities for the increased sale of U.S. energy efficiency and alternative energy technologies.

Technology transfer: Increased reliance on more energy efficient technologies and less carbon-intensive energy alternatives will help developing countries meet their growing energy needs with more environmentally sustainable solutions.

FACT SHEET ON ELECTRICITY RESTRUCTURING

October 22, 1997

As part of his climate change initiative, President Clinton announced his support for appropriately crafted electricity restructuring legislation that will save consumers billions of dollars while reducing carbon emissions.

Description

The electricity sector is our nation's most capital intensive industry -- and has sales of over $200 billion. Under electricity restructuring, competition would be the primary mechanism to set electricity generation prices. Utilities would open up their distribution and transmission wires to all qualified sellers. The transmission and distribution of electricity would continue to be regulated because they will remain monopolies for the foreseeable future. The system would be restructured, not deregulated. Done correctly, this process can save consumers in their utility bills and reduce carbon emissions. A properly structured retail competition system can deliver electricity more efficiently, and just as reliably, as our present system of regulated monopolies.

Cost savings

Most experts are confident that restructuring will reduce the cost of electricity, although there is a diversity of views over the potential size of the savings. Because the industry is so large, even modest savings represent billions of dollars. DOE economists estimate potential savings of $20 billion a year, which would mean average direct savings of about $100 a year to a typical family of four and indirect savings to such a family through lower cost goods and services of about another $100 a year. Other studies predict far larger savings.

Carbon reductions

With appropriate market-based provisions, electricity restructuring legislation could reduce carbon emissions by creating incentives to produce and use electricity more efficiently and with less pollution. As emphasized at the White House Conference on Climate Change, two-thirds of the energy used to produce electricity is currently wasted. Restructuring should introduce incentives for reducing this waste heat. Restructuring legislation could also include other provisions -- such as various incentives and mandates to promote energy efficiency and renewable energy -- that offer potential carbon savings.

Next steps

The Administration looks forward to working with interested parties on crafting comprehensive electricity restructuring legislation.

FACT SHEET ON FEDERAL ENERGY MANAGEMENT
October 22, 1997

Aggressive energy management can substantially reduce carbon emissions from the activities of the Federal government, which has the nation's largest energy bill at almost $8 billion per year. Significant strides have already been made --energy consumption per square foot in Federal buildings is down 15 percent and energy use in civilian and military vehicles is down about 27 percent from 1985 levels. However, we can do much more.

The initiatives below will reduce Federal emissions of greenhouse gases through enhanced focus on energy efficiency and renewable energy. They address areas which can deliver the greatest energy savings, best leverage private sector funding and improve the Federal procurement system.

1. Expand Energy Savings Performance Contracting

- Expand use of Energy Savings Performance Contracts. ESPC uses private investment capital and expertise to accomplish energy and cost saving projects in Federal facilities. When a private sector firm which has invested in federal energy efficiency improvements is fully repaid from its share of the delivered savings, all additional savings accrue to the government. Streamlined ESPC contracts put in place by DOD and DOE are beginning to speed large investments in energy projects at Federal facilities. However, use of ESPC's is still limited in the Federal government. The Office of Management and Budget will lead an effort to increase their use. It will include new policy and budget guidance for agencies. ESPC authority can also be extended to other areas including:

- *Leased Federal buildings.* These include buildings where the Government either pays for the energy use directly or in other building where ESPC can provide a better lease for the Government.

- *Federal mobility.* There may be great potential for energy savings from more efficient energy use in aircraft, ships and vehicles.

- *Water conservation.* Water conservation projects save energy because each gallon contains energy from pumping, heating, chilling or treatment.

- *Non-federal facilities* where the Government makes indirect payment of energy expenses. These include, for example, National Guard facilities which the state owns but where the Federal Government covers utility expenses and public housing facilities which are Federally supported but owned by public housing authorities.

- *State and local government facilities.* Federal energy experts can help transfer ESPC techniques to state and local governments so they can access this important approach to energy efficiency.

2. Improve Federal Procurement of Energy Efficient Technology

- *Accelerate the development of Product Energy Efficiency Recommendations.* These cover products that are in the top 25 percent of their class for energy efficiency or have Energy Star ratings, for example electric motors and air conditioning chillers. They provide a guide to Federal purchasers

of the energy efficiency level to request in a specification or procurement.

- *Establish as standard practice, the purchase of energy efficient products for Government use.* Traditionally, federal purchases have been based on lowest price, ignoring the substantial savings many energy efficient products can achieve over their life. The Executive Office of the President will lead an interagency team to streamline and update Executive Orders and procurement practices to encourage the acquisition of these products. Use of alternative contracting vehicles to acquire energy-efficient products will be encouraged, and purchase of products in the top 25 percent of class for energy efficiency or conforming to Energy Star standards will become standard practice, subject to necessary exceptions. The initiative will be augmented by publication of a "best practices" buying guide and expanded training of purchasing decision-makers.

- *Use consolidated purchasing to stimulate markets and lower prices.* Consolidated Federal purchasing can stimulate commercial markets for new and emerging products which offer greater energy efficiency, lower operating costs, and sales opportunities for small businesses that produce these products.

- *Increase Federal procurement of renewable energy.* In states that have implemented retail competition in their electricity industry, Federal facilities will work with their suppliers to ensure that the facilities purchase competitively supplied non-hydro renewable energy at levels equivalent to the percentage specified in that state's retail competition legislation.

- *Report Federal Agencies' Contributions to Reduction of Carbon Emissions.* This initiative will develop an appropriate measurement methodology to convert currently available data on Federal energy use to carbon emissions to aid national carbon reduction efforts.

3. Building for the 21st Century

- *Establish a new level of excellence for Federal building construction and renovation that incorporates energy efficiency, quality, affordability, and sustainability.* By using the latest construction techniques and tapping the knowledge of the building community and local partners, agencies will work to ensure that new Federal buildings achieve energy efficiency increases of 30-50 percent by 2000 as compared to existing facilities. This will be accomplished through a "whole building" approach that treats buildings as integrated systems rather than a series of independent component selections.

- *Deploy solar technologies in Federal buildings.* Show Federal leadership by installing solar photovoltaic and solar thermal systems on 20,000 Federal roofs by 2010 in support of the President's 'Million Solar Roof Initiative'. Utilize alternative financing methods to provide the rapid infusion of investment necessary to support the cost-effective installation of these systems.

- *Expand the use of combined heat and power generation at Federal facilities.* Combined heat and power makes greater use of the waste heat produced in the generation of electricity.

- *Use biomass fuels in Federal boilers.* Biomass would come from agricultural and wood waste and methane from landfill and treatment plant operations.

- *Expand public awareness of energy efficient technologies.* By showcasing energy efficient and

renewable energy technologies at National Parks, Federal offices, embassies, military bases, and other facilities the public will be more aware of their potential to reduce pollution and lower costs.

- *Seek increased resources for civilian agency staffing to expand energy management activities and complete energy efficiency projects.* In recent years, budgets for energy management in several key agencies have been cut by more than 80 percent. These Federal appropriations often provide the most cost-effective funding for Federal energy efficiency projects.

4. Improve Aircraft, Ship, and Heavy Vehicle Fuel Efficiency

- *Public-Private partnerships to improve the energy efficiency of Federal aircraft, ships and vehicles.* Energy use in Federal aircraft, ships and vehicles, predominantly in the military services, is responsible for 43 percent of the $8 billion Federal energy bill. This initiative would improve the energy efficiency of main propulsion systems, with particular emphasis on medium and heavy diesel engines and high performance turbine technology. The initiative -- designed along the lines of the Partnership for a New Generation of Vehicles -- would involve a partnership between Federal agencies and the private sector. Advances under this initiative will have significant application in commercial markets. In addition, the initiative will focus on near-term energy efficiency opportunities such as lighting retrofits on ships.

- *Increase the use of alternative fueled vehicles (AFVs) in the Federal fleet.* Federal agencies are increasing the use of alternative fuel vehicles which, among other things, helps reduce emissions of greenhouse gases. This initiative would enhance the focus of the current program on AFVs such as electrics, hybrid-electrics, natural gas and renewable-fueled vehicles.

5. Greenhouse Gas Assessments

- Federal agencies will be required to assess their greenhouse gas emissions in major actions they undertake.

FACT SHEET ON U.S. GLOBAL CHANGE RESEARCH PROGRAM

October 22, 1997

Background: The U.S. Global Change Research Program (USGCRP) is a National Research Program conducted under the auspices of the National Science and Technology Council (NSTC) Committee on Environment and Natural Resources. The NSTC is a cabinet-level council established by President Clinton in November 1993 to coordinate Federal science and technology efforts. The program's fundamental purpose is to increase understanding of the Earth system, and of human and naturally induced changes in the Earth's environment, and thus provide a sound scientific basis for decision making on global change issues. The USGCRP began as a Presidential Initiative, and was codified by the Global Change Research Act of 1990. The overall FY 1997 USGCRP budget was $1.81 billion.

The core program of the USGCRP is focused on four key scientific areas:

• *Seasonal to Interannual Climate Variability:* The development and refinement of forecasts of seasonal and interannual climate variability, including study and prediction of the El Niño phenomena.

• *Climate Change Over Decades to Centuries:* Analysis and projection of the effects of long-term climate change on natural resources, public health, and socio-economic sectors.

• *Changes in Ozone, UV Radiation, and Atmospheric Chemistry:* Research on the causes, rate, magnitude, and human health and ecological consequences of changes in stratospheric ozone, UV radiation, and atmospheric chemistry.

• *Changes in Land Cover and Terrestrial and Aquatic Ecosystems:* Research on the causes and consequences of land-cover changes, and on basic processes governing the functions and structure of terrestrial, aquatic, and marine ecosystems.

New Research Directions: Global change research is providing the information about the changing Earth system, and in particular, about climate change, that is needed to achieve a sustainable future. New research efforts include:

• *A National Assessment of Climate Change Impacts* to aggregate information across regions and sectors, analyze national-scale consequences, and support development of mitigation and adaptation strategies.

• *Improved Regional-scale Analyses*, including regional estimates of the rate and magnitude of climate change, analyses of the environmental and socio-economic consequences of climate change in the context of other stresses, and integrated assessments of the implications for society and the environment of climate change.

• *Regional Workshops* to examine the vulnerabilities of various regions of the United States to climate change.

FACT SHEET ON PNGV

October 22, 1997

Announced at the White House on September 29, 1993 by President Clinton, Vice President Gore, and the CEOs of the domestic auto makers, the Partnership for a New Generation of Vehicles (PNGV) is a partnership between the U.S. Federal government (7 agencies and 20 federal laboratories) and Chrysler, Ford, and General Motors that aims to strengthen America's competitiveness by developing technologies for a new generation of vehicles. Its programs include research support for over 350 automotive suppliers, universities, and small businesses.

PNGV's long-term goal is to develop production prototypes of an attractive, affordable car that can meet all applicable environmental and safety times and achieve up to three times the fuel efficiency of a comparable automobile sold today. This would mean that a typical midsize car would be able to achieve 80 mpg. The partnership also aims to (i) improve automotive manufacturing, and (ii) introduce efficiency technologies into production vehicles as soon as they are economically justified.

There are numerous reasons for pursuing PNGV, including:

- **Environmental:** Automobiles are a major contributor to atmospheric carbon dioxide, a major greenhouse gas. Already, concentrations of carbon dioxide are 25 percent higher than pre-industrial levels and are expected to double within the next century. Since the number of registered vehicles in the United States is expected to climb from 194 million in 1993, to as many as 270 million in 2010, PNGV's success is critical to any program of controlling US and world greenhouse gas emissions. It will also result in low cost methods for controlling the emissions that contribute to urban air pollution.

- **Reducing U.S. Dependence on Foreign Oil**: The United States currently imports 50 percent of the oil we consume -- this share is expected to grow to more than 60 percent by 2010. Petroleum imports make up ten percent of our country's import inventory and account for a large chunk of the nation's trade deficit. This dependence on foreign oil makes the United States vulnerable.

PNGV Status Report: The industrial partners are now in the process of selecting technologies that will be included in concept vehicles that will be completed by the turn of the century. The federal agencies are working to revise their research priorities to support both technologies that can be incorporated in production prototypes for 2004 and that can be integrated into even more advanced vehicles that would be designed in later years.

The goal of the program, while extremely ambitious, still seems possible given the advances in key technology that have been achieved during the life of the program. These include advances in production of low-cost, light-weight materials for the vehicle body and frame; electrical control systems, batteries; and compact, inexpensive fuel cells -- including the new technology for using gasoline to power fuel cells announced yesterday; and, advanced internal combustion engines for use in hybrid vehicles.

FACT SHEET ON FUEL CELLS

October 22, 1997

THE BREAKTHROUGH: A gasoline-powered technology that would allow you to double the fuel efficiency of a car and emit half the greenhouse gases and virtually no other air pollution. For the first time, gasoline was used to produce electricity from a pollution-free fuel cell, allowing the use of the existing gasoline infrastructure. Previously, fuel cells have been powered by hydrogen or methanol, which are less convenient for use in cars.

The Department of Energy, together with Los Alamos National Laboratory, and A.D. Little, have developed a breakthrough fuel processor, which can extract hydrogen from gasoline and other fuels such as ethanol and natural gas. Last week, this fuel processor was combined with a fuel cell from Plug Power to demonstrate for the first time that a fuel cell electric car could be fueled by gasoline or ethanol. This eliminates the limited driving range and lengthy recharging times associated with electric cars that run on batteries.

WHAT IS A FUEL CELL: The fuel cell converts the chemical energy of a fuel directly into usable electricity and heat without combustion. Fuel cells are similar to batteries in that both produce a direct current by means of an electrochemical process, but fuel cells can operate indefinitely as long as fuel is supplied to them. Fuel cells can provide power for cars and other applications, such as electricity and hot water for buildings.

The Department of Energy working with its partners has brought down the cost of proton exchange membrane (PEM) fuel cells by a factor of twenty in the last ten years. Continued R&D, coupled with the economies of scale from mass production of fuel cells as they enter the marketplace, should allow us to maintain this pace of cost reduction for another decade.

PARTNERSHIP FOR A NEW GENERATION OF VEHICLES (PNGV): The fuel cell breakthrough was accomplished as part of President Clinton's PNGV initiative, an innovative partnership between the government, the national laboratories, the big three automakers, and their suppliers. PNGV's goal is to develop a family-sized vehicle with triple the fuel efficiency of today's cars, without compromising cost or convenience.

POTENTIAL GREENHOUSE GAS REDUCTIONS: One-third of the nation's carbon dioxide emissions comes from the transportation sector, primarily cars. Fuel cell technology alone can directly double fuel efficiency and cut carbon dioxide emissions in half. In combination with other PNGV advances, such as lightweight materials and regenerative breaking, fuel cells will allow a tripling of fuel efficiency and a further reduction in greenhouse gas emissions. Powering the fuel cell with renewable fuels, such as ethanol, could eliminate automotive greenhouse gas emissions entirely in the long run. The buildings sector also generates one-third of the nation's emissions of carbon dioxide. A building that uses the electricity and hot water from a fuel cell fueled by natural gas would have about half of the greenhouse gas emissions of the average building today. Plug Power expects to introduce fuel cells for homes and other buildings in 2000 that will provide electricity for less than the current residential rate. By 2010, fuel cells in buildings could be providing emissions savings of five million metric tons of carbon.

FACT SHEET ON PATH

October 22, 1997

What is PATH? We are working to develop a partnership for 21st century housing bringing together government and industry to develop, demonstrate and deploy housing technologies, designs and practices that can significantly improve the quality of housing without raising the cost of construction. The **Partnership for Advancing Technologies in Housing** includes government (DOE, HUD, EPA, Labor, Commerce, FEMA, and DOD) and industry working together develop, demonstrate and deploy housing technologies and practices so that homes can be built cheaper, more environmentally sustainable, more disaster resistant, and provide a safer working environment.

PATH has a five-part approach:

- Industry-driven research on new technologies and practices
- Working with industry on pilot programs building thousands of marketable houses
- Streamlining of federal, state and local codes and regulations
- Judicious use of existing authority on standards
- Information campaign to influence consumer demand

R&D: Support more funds for accelerated research and demonstration of inexpensive, highly efficient, highly attractive housing. Link with million solar roofs program.

Standards: The success of PATH will in some part be based on utilizing existing authorities on standards for a select few products that have the potential for great savings. There are five appliance/products currently under review by DoE; Clothes Washers, Ranges/Ovens, Ballasts, Residential water heaters, transformers. Of these, the Clothes Washers and Water Heaters seem to have greatest potential.

Creating Markets: The key to making the Partnership successful will be the ability to create markets and consumer demands for homes that meet the PATH goals. The Partnership will work with states and communities to help them understand the benefits of building these homes, and the opportunities it affords the communities for economic growth. The Partnership will attempt to gain agreements between communities that PATH homes can go through an expedited permitting process.

Education and Outreach: Marketing the benefits of these homes to consumers and to encourage consumers to begin to ask for homes that are built to the quality level of >PATH= homes. This will need to be an intensive campaign of getting the message out to communities, builders and developers. This will provide incentives for more and more builders to want to build these homes.

Pilots: The pilots will play an important role in the success of PATH. The pilot sites will begin of developing the markets and demonstrate the feasibility of the homes. The pilot sites can also act as training sites for builders and community leaders to learn about the benefits of the technologies and as a classroom for training on how to use the technologies. Sites under consideration are Stapleton Airport, Denver (Redevelopment of old airport site near downtown) and Florida (Working with the State to link energy and environment to disaster resistance and affordability).

Regulatory Streamlining: Working with states and communities on making the code approval process more efficient and less time consuming.

FACT SHEET ON POTENTIAL INDUSTRY SECTOR SAVINGS

October 22, 1997

The industrial sector produces approximately one-third of total U.S. emissions. We can cut emissions substantially in this sector through the right mix of tax incentives, accelerated research and development, electricity restructuring, and environmental regulatory reinvention. According to a recently released report from five of the nation's energy laboratories, programs such as the ones below can reduce emissions in the industrial sector in 2010 by 28 million metric tons even with no increase in energy prices.

Increasing Energy Efficiency: Energy audits encourage systematic approaches to energy efficiency that typically have high yields. Southwire Corporation, a large manufacturer of wire, rod, and cable, cut their use of natural gas by 60 percent and cut electricity use by 40 percent per pound of product produced. Motors consume 70 percent of industrial electricity used, and there is room for improving their efficiency. The Greenville Tube Company, for example, increased productivity by 15 percent, increased energy efficiency by 30 percent, reduced scrap by 15 percent, and achieved $77,000 per year savings -- a 6 month payback -- by improving the efficiency of their motors.

Cogeneration (Combined Heat and Power): New technologies available in the industrial sector will allow us to capture the waste heat the U.S. now throws away. With the right policies, industrial cogeneration of natural gas or biomass could cut annual carbon emission significantly by 2010. Advanced turbines developed by DOE with industry will be available in three years (orders are already being taken). They have an overall efficiency of 80 percent to 90 percent, produce steam together with low-cost electricity and significantly reduce NOx emissions. These turbines can run on natural gas or biomass. Some industries have their own low-cost biomass feedstocks (for example, black liquor gasification in the pulp and paper industry), which makes possible cogeneration with nearly zero carbon emissions.

Expanding Industries of the Future: The seven most energy-intensive industries—steel, aluminum, petroleum refining, chemicals, pulp and paper products, glass, and metal casting—account for about 80 percent of the carbon emissions in U.S. manufacturing and more than 90 percent of the hazardous waste. Industry, partnering with the Department of Energy, has developed long-term visions of energy-efficient, low-polluting, highly competitive "Industries of the Future" as well as technology roadmaps to identify an R&D and deployment pathway to achieving the vision. Visions typically foresee annual energy efficiency improvements of 1.0 percent to 1.5 percent for two decades.

FACT SHEET ON POTENTIAL BUILDINGS SECTOR SAVINGS

October 22, 1997

The buildings sector also produces approximately one-third of total U.S. emissions. There is substantial opportunity to improve the energy efficiency of our buildings and the appliances in them. Many of these technologies improve the quality of service delivered (i.e. higher quality lighting), and have also been documented in a number of cases to improve productivity. According to a recently released report from five of the nation's energy laboratories, programs such as the ones below can reduce emissions in the buildings sector in 2010 by 25 million metric tons even with no increase in energy prices.

Standards: Substantial carbon emissions reductions in 2010 can be achieved through existing authority of the Department of Energy to establish market-oriented efficiency standards for appliances, such as refrigerators and air conditioners. The Department of Energy uses a consensus-based approach in which manufacturers, environmentalists, consumer advocates, and the states work together to develop applicable standards.

Voluntary Programs: Significant carbon reductions in 2010 could also be achieved by expanding voluntary programs such as the joint EPA–DOE Energy Star program. Energy Star labeling has already transformed a number of markets. For example, it has cut the energy used by computers, monitors, and printers by 50 percent at virtually no incremental cost. It is now being extended to dozens of other products.

Adopting Best Electricity Engineering Practices: Electronic equipment consumes electricity in stand-by mode (even when not being used) generating 12 MMTs of carbon emission each year. Preliminary analysis suggests that 80 percent of that could be saved through adopting best engineering practices without reducing service.

Research and Development: Designing buildings with advanced technology can reduce energy consumption by 25 to 50 percent without increasing the building's initial cost. The extra cost of some of the energy-efficient equipment is offset by the smaller required heating and cooling system.

Combined Heat and Power: As in industry, we can reduce the carbon intensity of the buildings sector by accelerating the use of combined heat and power (CHP). Two CHP technologies—small turbines and proton-exchange membrane (PEM) fuel cells—can convert natural gas to useful energy with 80 to 90 percent efficiency, significantly cutting carbon emissions from a building.

FACT SHEET ON POTENTIAL TRANSPORTATION SECTOR SAVINGS

October 22, 1997

The transportation sector produces approximately one-third of total U.S. emissions. According to a recently released report from five of the nation's energy laboratories, programs such as the ones below can reduce emissions in the transportation sector in 2010 by 73 million metric tons even with no increase in energy prices.

High Efficiency Cars And Light Trucks: The goal of the President's Partnership for a New Generation of Vehicles is to produce cars that are three times more efficient than current vehicles with no compromise in size, safety, comfort or cost. The objective is a production prototype vehicle with a fuel efficiency of 80 mpg in 2004 and commercial availability soon after. A variety of efficient technologies such as hybrid vehicle design, advanced engines, regenerative braking and lightweight materials are under development. These technologies are also applicable to light trucks and sport utility vehicles, so that a PNGV for these heavier passenger vehicles is quite possible with an expanded research effort.

High efficiency heavy trucks: Ongoing federal R&D on advanced diesel engines and lightweight materials have the potential to substantially reduce carbon emissions from heavy trucks. These technologies are projected to be available by about 2003 and be quickly adopted by trucking manufacturers since energy is a major cost component of freight transportation (a truck typically gets 7 to 8 miles per gallon while traveling over 50,000 miles a year).

Advanced Efficient Aircraft and Rail: Ongoing federal R&D on advanced aircraft engines, improved airframes, and air traffic control have the potential to improve aircraft energy efficiency by 35 percent, with an additional increment of carbon emissions reductions achieved by increasing the efficiency of trains.

Low-Carbon Fuel: Government-industry R&D partnerships have brought the cost of ethanol from cellulosic waste (such as crop waste) and dedicated crops (such as switchgrass) from $3.60 per gallon in 1980 to $1.20 per gallon today. Such fuels are carbon neutral because the crops capture carbon dioxide when they grow and release it during combustion.

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Remarks by Vice President Al Gore
The United Nations Committee on Climate Change Conference of the Parties
December 8, 1997
Kyoto, Japan

Thank you. Prime Minister Hashimoto and President Figueres, President Kinza Clodumar, other distinguished heads of state, distinguished delegates, ladies and gentlemen.

It is an honor to be here at this historic gathering, in this ancient capital of such beauty and grace. On behalf of President Clinton and the American people, and our U.S. negotiator, Ambassador Stu Eizenstat, I salute our Japanese hosts for their gracious hospitality, and offer a special thank you to Prime Minister Hashimoto, and to our chairs, Minister Ohki, and Ambassador Estrada, for their hard work and leadership.

Since we gathered at the Rio Conference in 1992, both scientific consensus and political will have come a long way. If we pause for a moment and look around us, we can see how extraordinary this gathering really is.

We have reached a fundamentally new stage in the development of human civilization, in which it is necessary to take responsibility for a recent but profound alteration in the relationship between our species and our planet. Because of new technological power and our growing numbers, we now must pay careful attention to the consequences of what we are doing to the Earth - especially to the atmosphere.

There are other parts of the Earth's ecological system that are also threatened by the increasingly harsh impact of thoughtless behavior:

The poisoning of too many places where people -- especially poor people -- live, and the deaths of too many children -- especially poor children -- from polluted water and dirty air.

The dangerous and unsustainable depletion of ocean fisheries. And

The rapid destruction of critical habitats -- rain forests, temperate forests, boreal forests, wetlands, coral reefs, and other precious wellsprings of genetic variety upon which the future of humankind depends.

But the most vulnerable part of the Earth"s environment is the very thin layer of air clinging near to the surface of the planet, that we are now so carelessly filling with gaseous wastes that we are actually altering the relationship between the Earth and the Sun -- by trapping more solar radiation under this growing blanket of pollution that envelops the entire world.

The extra heat which cannot escape is beginning to change the global patterns of climate to which we are accustomed, and to which we have adapted over the last 10,000 years.

Last week we learned from scientists that this year, 1997, with only three weeks remaining, will be the hottest year since records have been kept. Indeed, nine of the ten hottest years since the measurements began have come in the last ten years. The trend is clear. The human consequences -- and the economic costs -- of failing to act are unthinkable. More record floods and droughts. Diseases and pests spreading to new areas. Crop failures and famines. Melting glaciers, stronger storms, and rising seas.

Our fundamental challenge now is to find out whether and how we can change the behaviors that are causing the problem.

To do so requires humility, because the spiritual roots of our crisis are pridefulness and a failure to understand and respect our connections to God's Earth and to each other.

Each of the 160 nations here has brought unique perspectives to the table, but we all understand that our work in Kyoto is only a beginning. Non of the proposals being debated here will solve the problem completely by itself. But if we get off to the right start here, we can quickly build momentum as we learn together how to meet this challenge. Our first step should be to set realistic and achievable, binding emissions limits, which will create new markets for new technologies and new ideas that will, in turn, expand the boundaries of the possible and create new hope. Other steps will then follow. And then, ultimately, we will achieve a safe overall concentration level for greenhouse gases in the Earth's atmosphere.

This is the step-by-step approach we took in Montreal ten years ago to address the problem of ozone depletion. And it is working.

This time, success will require first and foremost that we heal the divisions among us.

The first and most important task for developed countries is to hear the immediate needs of the developing world. And let me say, the United States has listened and we have learned.

We understand that your first priority is to lift your citizens from the poverty so many endure and build strong economies that will assure a better future. This is your right: it will not be denied.

And let me be clear in our answer to you: we do not want to founder on a false divide. Reducing poverty and protecting the Earth's environment are both crucial components of truly sustainable development. We want to forge a lasting partnership to achieve a better future. One key is mobilizing new investment in your countries to ensure that you have higher standards of living, with modern, clean and efficient technologies.

That is what our proposals for emissions trading and joint implementation strive to do.

To our partners in the developed world, let me say we have listened and learned from you as well. We understand that while we share a common goal, each of us faces unique challenges.

You have shown leadership here, and for that we are grateful. We came to Kyoto to find new ways to bridge our differences. In doing so, however, we must not waiver in our resolve. For our part, the United States remains firmly committed to a strong, binding target that will reduce our own emissions by nearly 30 percent from what they would otherwise be -- a commitment as strong, or stronger, than any we have heard here from any country. The imperative here is to do what we promise, rather than to promise what we cannot do.

All of us, must reject the advice of those who ask us to believe there really is no problem at all. We know their arguments: we have heard others like them throughout history. For example, in my country, we remember the tobacco company spokesman who insisted for so long that smoking did no harm. To those who seek to obfuscate and obstruct, we say: we will not allow you to put narrow special interests above the interests of all humankind.

So what does the United States propose we do?

The first measure of any proposal must be its environmental merit, and ours is environmentally solid and sound.

It is strong and comprehensive, covering all six significant greenhouse gases. It recognizes the link between the air and the land, including both sources and sinks. It provides the tools to ensure that targets can be met -- offering emissions trading, joint implementation and research as powerful engines of technology development and transfer. It further reduces

emissions -- below 1990 levels -- in the years 2012 and beyond. It provides the means to ensure that all nations can join us on their own terms in meeting this common challenge.

It is also economically sound. And, with strict monitoring and accountability, it ensures that we will keep our bond with one another.

Whether or not agreement is reached here, we will take concrete steps to help meet this challenge. President Clinton and I understand that out first obligations is to address this issue at home. I commit to you today that the United States is prepared to act -- and will act.

For my part, I have come here to Kyoto because I am both determined and optimistic that we can succeed. I believe that by our coming together in Kyoto we have already achieved a major victory, one both of substance and of spirit. I have no doubt that the process we have started here inevitably will lead to a solution in the days or years ahead.

Some of you have, perhaps, heard from your home capitals that President Clinton and I have been burning up the phone lines, consulting and sharing new ideas. Today let me add this. After talking with our negotiators this morning and after speaking on the telephone from here a short time ago with President Clinton, I am instructing our delegation right now to show increased negotiating flexibility if a comprehensive plan can be put in place, one with realistic targets and timetables, market mechanisms, and the meaningful participation of key developing countries.

Earlier this century, the Scottish mountain climber, W.H. Murray, wrote:

"Until one is committed there is hesitancy, the chance to draw back, always ineffectiveness. Concerning all acts of initiative. . .there is one elementary truth, the ignorance of which kills countless ideas and splendid plans: that the moment one definitely commits oneself, providence moves, too."

So let us press forward. Let us resolve to conduct ourselves in such a way that our children's children will read about the "Spirit of Kyoto," and remember well the place and the time where humankind first chose to embark together on a long-term sustainable relationship between our civilization and the Earth's environment.

In that spirit, let us transcend our differences and commit to secure our common destiny: a planet whole and healthy, whose nations are at peace, prosperous and free; and whose people everywhere are able to reach for their God-given potential.

Thank you.

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Contents

The Articles of the Kyoto Protocol to the United Nations Framework Convention on Climate Change do not have titles; the indicative subject headings below are intended only as an aid to the reader and are not a part of the official text, which starts on p.3.

The following table and three COP decisions do not form part of the Kyoto Protocol but are included here because they provide information relevant to the Protocol's adoption and its implementation.

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 th 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 I, 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 [redacted]ns of a Party included in Annex I in a commitment period are less than its ass[redacted] 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 ac[redacted]eir 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;

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 de[redacted] 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 Part[redacted]nis 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) [redacted]s, 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 [redacted]eration 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.

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.

DECISIONS ADOPTED BY THE CONFERENCE OF THE PARTIES

(12th plenary meeting, 11 December 1997)

Decision 1/CP.3
Adoption of the Kyoto Protocol to the United Nations Framework Convention on Climate Change

The Conference of the Parties,

Having reviewed Article 4, paragraph 2(a) and (b), of the United Nations Framework Convention on Climate Change at its first session and having concluded that these subparagraphs are not adequate,

Recalling its decision 1/CP.1 entitled "The Berlin Mandate: Review of the adequacy of Article 4, paragraph 2(a) and (b), of the Convention, including proposals related to a protocol and decisions on follow-up", by which it agreed to begin a process to enable it to take appropriate action for the period beyond 2000 through the adoption of a protocol or another legal instrument at its third session,

Recalling further that one aim of the process was to strengthen the commitments in Article 4, paragraph 2(a) and (b) of the Convention, for developed country/other Parties included in Annex I, both to elaborate policies and measures, and to set quantified limitation and reduction objectives within specified time-frames, such as 2005, 2010 and 2020, for their anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol,

Recalling also that, according to the Berlin Mandate, the process will not introduce any new commitments for Parties not included in Annex I, but reaffirm existing commitments in Article 4, paragraph 1, and continue to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7,

Noting the reports of the Ad Hoc Group on the Berlin Mandate on its eight sessions,[1]

Having considered with appreciation the report presented by the Chairman of the Ad Hoc Group on the Berlin Mandate,

Taking note with appreciation of the report of the Chairman of the Committee of the Whole on the outcome of the work of the Committee,

Recognizing the need to prepare for the early entry into force of the Kyoto Protocol to the United Nations Framework Convention on Climate Change,

Aware of the desirability of the timely commencement of work to pave the way for a successful outcome of the fourth session of the Conference of the Parties, to be held in Buenos Aires, Argentina,

[1] FCCC/AGBM/1995/2 and Corr.1, and 7 and Corr.1, FCCC/AGBM/1996/5, 8, and 11, FCCC/AGBM/1997/3, 3/Add.1 and Corr.1, 5, 8 and 8/Add.1.

1. Decides to adopt the Kyoto Protocol to the United Nations Framework Convention on Climate Change, annexed hereto;

2. Requests the Secretary-General of the United Nations to be the Depositary of this Protocol and to open it for signature in New York from 16 March 1998 until 15 March 1999;

3. Invites all Parties to the United Nations Framework Convention on Climate Change to sign the Protocol on 16 March 1998 or at the earliest opportunity thereafter, and to deposit instruments of ratification, acceptance or approval, or instruments of accession where appropriate, as soon as possible;

4. Further invites States that are not parties to the Convention to ratify or accede to it, as appropriate, without delay, so that they may become Parties to the Protocol;

5. Requests the Chairman of the Subsidiary Body for Scientific and Technological Advice and the Chairman of the Subsidiary Body for Implementation, taking into account the approved programme budget for the biennium 1998-1999 and the related programme of work of the secretariat,[2] to give guidance to the secretariat on the preparatory work needed for consideration by the Conference of the Parties, at its fourth session, of the following matters, and to allocate work thereon to the respective subsidiary bodies as appropriate:

(a) Determination of 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 to the Protocol included in Annex I to the Convention, as provided for under Article 3, paragraph 4, of the Protocol;

(b) Definition of relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability of emissions trading, pursuant to Article 17 of the Protocol;

(c) Elaboration of guidelines for any Party to the Protocol included in Annex I to the Convention to 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, as provided for under Article 6 of the Protocol;

(d) Consideration of and, as appropriate, action on suitable methodologies to address the situation of Parties listed in Annex B to the Protocol for which single projects would have a significant proportional impact on emissions in the commitment period;

(e) Analysis of the implications of Article 12, paragraph 10, of the Protocol;

6. Invites the Chairman of the Subsidiary Body for Scientific and Technological Advice and the Chairman of the Subsidiary Body for Implementation to make a joint proposal to those bodies, at their eighth sessions, on the allocation to them of preparatory work to enable the Conference of the Parties serving as the meeting of the Parties to the Protocol, at its first session after the entry into force of the Protocol, to accomplish the tasks assigned to it by the Protocol.

Decision 2/CP.3
Methodological issues related to the Kyoto protocol

The Conference of the Parties,

Recalling its decisions 4/CP.1 and 9/CP.2,

Endorsing the relevant conclusions of the Subsidiary Body for Scientific and Technological Advice at its fourth session,[1]

1. Reaffirms that Parties should use the Revised 1996 Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change to estimate and report on anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol;

2. Affirms that the actual emissions of hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride should be estimated, where data are available, and used for the reporting of emissions. Parties should make every effort to develop the necessary sources of data;

3. Reaffirms that global warming potentials used by Parties should be those provided by the Intergovernmental Panel on Climate Change in its Second Assessment Report ("1995 IPCC GWP values") based on the effects of the greenhouse gases over a 100-year time horizon, taking into account the inherent and complicated uncertainties involved in global warming potential estimates. In addition, for information purposes only, Parties may also use another time horizon, as provided in the Second Assessment Report;

4. Recalls that, under the Revised 1996 Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change, emissions based upon fuel sold to ships or aircraft engaged in international transport should not be included in national totals, but reported separately; and urges the Subsidiary Body for Scientific and Technological Advice to further elaborate on the inclusion of these emissions in the overall greenhouse gas inventories of Parties;

[1] FCCC/SBTA/1996/20, paras. 30 and 54.

5. Decides that, emissions resulting from multilateral operations pursuant to the Charter of the United Nations shall not be included in national totals, but reported separately; other emissions related to operations shall be included in the national emissions totals of one or more Parties involved.

Decision 3/CP.3
Implementation of Article 4, paragraphs 8 and 9, of the Convention

The Conference of the Parties,

Noting the provisions of Article 4, paragraphs 8 and 9, of the United Nations Framework Convention on Climate Change,

Noting further the provisions of Article 3 of the Convention and of the "Berlin Mandate" in its paragraph 1(b),[1]

1. Requests the Subsidiary Body for Implementation, at its eighth session, to undertake a process to identify and determine actions necessary to meet the specific needs of developing country Parties, specified under Article 4, paragraphs 8 and 9, of the Convention, arising from adverse effects of climate change and/or the impact of the implementation of response measures. Issues to be considered shall include actions related to funding, insurance and transfer of technology;

2. Further requests the Subsidiary Body for Implementation to report to the Conference of the Parties, at its fourth session, on the outcome of this process;

3. Invites the Conference of the Parties, at its fourth session, to take a decision on actions based on the conclusions and recommendations of this process.

Table: Total carbon dioxide emissions of Annex I Parties in 1990, for the purposes of Article 25 of the Kyoto Protocol [a]

Party	Emissions (Gg)	Percentage
Austria	59,200	0.4
Belgium	113,405	0.8
Bulgaria	82,990	0.6
Canada	457,441	3.3
Czech Republic	169,514	1.2
Denmark	52,100	0.4
Australia	288,965	2.1
Estonia	37,797	0.3
Finland	53,900	0.4
France	366,536	2.7
Germany	1,012,443	7.4
Greece	82,100	0.6
Hungary	71,673	0.5
Iceland	2,172	0.0
Ireland	30,719	0.2
Italy	428,941	3.1
Japan	1,173,360	8.5
Latvia	22,976	0.2
Liechtenstein	208	0.0
Luxembourg	11,343	0.1
Monaco	71	0.0
Netherlands	167,600	1.2
New Zealand	25,530	0.2
Norway	35,533	0.3
Poland	414,930	3.0
Portugal	42,148	0.3
Romania	171,103	1.2
Russian Federation	2,388,720	17.4
Slovakia	58,278	0.4
Spain	260,654	1.9

Swed[illegible]	61,256	0.4
Switzerland	43,600	0.3
United Kingdom of Great Britain and Northern Ireland	584,078	4.3
United States of America	4,957,022	36.1
Total	**13,728,306**	**100.0**

a Data based on the information from the 34 Annex I Parties that submitted their first national communications on or before 11 December 1997, as compiled by the secretariat in several documents (A/AC.237/81; FCCC/CP/1996/12/Add.2 and FCCC/SB/1997/6). Some of the communications included data on CO2 emissions by sources and removals by sinks from land-use change and forestry, but since different ways of reporting were used these data are not included.

Clinton Presidential Records
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Divider Title: _____

The Kyoto Protocol on Climate Change
Fact Sheet released by the Bureau of Oceans and International Environmental and Scientific Affairs
January 15, 1998

BACKGROUND

At a conference held December 1 - 11 1997, in Kyoto, Japan, the Parties to the UN Framework Convention on Climate Change agreed to an historic Protocol to reduce greenhouse gas emissions by harnessing the forces of the global marketplace to protect the environment.

The Kyoto Protocol in key respects -- including emissions targets and timetables for industrialized nations and market-based measures for meeting those targets -- reflects proposals advanced by the United States. The Protocol makes a down payment on the meaningful participation of developing countries, but more needs to be done in this area. Securing meaningful developing country participation remains a core U.S. goal.

EMISSIONS TARGETS

A central feature of the Kyoto Protocol is a set of binding emissions targets for developed nations. The specific limits vary from country to country, though those for the key industrial powers of the European Union, Japan, and the United States are similar -- 8% below 1990 emissions levels for the EU, 7% for the U.S., 6% for Japan.

The framework for these emissions targets is based largely on U.S. proposals:

- Emissions targets are to be reached over a five-year budget period as proposed by the U.S., rather than by a single year. Allowing emissions to be averaged across a budget period increases flexibility by helping to smooth out short-term fluctuations in economic performance or weather, either of which could spike emissions in a particular year.
- The first budget period will be the U.S. proposal of 2008-2012. The Parties rejected proposals favored by others, including budget periods beginning as early as 2003, that were neither realistic nor achievable. Having a full decade before the start of the binding period will allow more time for U. S. companies to make the transition to greater energy efficiency and/or lower carbon technologies.
- The emissions targets include all six major greenhouse gases. The EU and Japan initially favored counting only three gases -- carbon dioxide, methane, and nitrous oxide. Ensuring the inclusion of the additional gases (synthetic substitutes for ozone-depleting CFCs) that are highly potent and long-lasting in the atmosphere provides more comprehensive environmental protection and lends more certainty concerning the treatment of the additional gases.
- Activities that absorb carbon, such as planting trees, will be offset against emissions targets. The treatment of these so-called "sinks" was another controversial issue at Kyoto. Many countries wanted sinks to be excluded. The United States insisted that they be included in the interest of encouraging activities like afforestation and reforestation. Accounting for the role of forests is critical to a comprehensive and environmentally responsible approach to climate change. It also provides the private sector with low-cost opportunities to reduce emissions.

Is the target the United States agreed to actually 7% lower than what the President proposed in October?

No. The 7% target represents at most a 3% real reduction below the President's initial proposal of reducing greenhouse gases to 1990 levels by 2008-2012. The remaining 4 percentage points result from certain changes in the way gases and sinks are calculated and do not reflect any increase in effort as compared to the President's original proposal.

Changing the baseline for the three synthetic greenhouse gasses from 1990 to 1995 accounts for about 1% of the 7% reduction. Use of these three gases has grown since 1990, so that permitting a 1995 baseline allows for a higher overall baseline than the Administration assumed last October when the President announced his goal of reaching 1990 levels by 2008-2012. Making reductions to meet a higher baseline is of course easier than making reductions to meet a lower baseline. Had the United States maintained the same level of effort assumed by the President in October, and no other factors had changed, the shift to a 1995 baseline for the three synthetic gases would, alone, have transformed the President's goal of 1990 levels into a goal equivalent to 1% below 1990 levels.

Altering the accounting method for carbon-absorbing activities, such as planting trees, accounts for about 3% of the 7% reduction. The President's original goal assumed that the 1990 baseline would be lowered by carbon-absorbing activities, but under the method agreed in Kyoto, such activities do not lower the 1990 baseline. Because the 1990 level baseline is thus higher under the Kyoto agreement, the U.S. target becomes somewhat less stringent. Specifically, had the U.S. maintained the same level of effort assumed by the President in October, and no other factors had changed, the shift in the accounting method for carbon-absorbing activities would, alone, have transformed the President's goal of 1990 levels into a goal equivalent to at least 3% below 1990 levels. (As noted above, certain carbon-absorbing activities will count against emission reduction commitments in the budget period.)

INTERNATIONAL EMISSIONS TRADING

The United States prevailed in securing acceptance of emissions trading among nations with emissions targets. This free market approach, pioneered in the U.S., will allow countries to seek out the cheapest emissions reductions, substantially lowering costs for the U.S. and others.

Under an emissions trading regime, countries or companies can purchase less expensive emissions permits from countries that have more permits than they need (because they have met their targets with room to spare). Structured effectively, emissions trading can provide a powerful economic incentive to cut emissions while also allowing important flexibility for taking cost-effective actions.

The Kyoto Protocol enshrines emissions trading. Rules and guidelines -- in particular for verification, reporting, and accountability -- are to be discussed at the next meeting of the Parties at Buenos Aires in November 1998.

The inclusion of emissions trading in the Kyoto Protocol reflects an important decision to address climate change through the flexibility of market mechanisms. Led by the United States, the Conference rejected proposals to require all Parties with targets to impose specific mandatory measures, such as energy taxes.

The United States also reached a conceptual agreement with a number of countries, including Australia, Canada, Japan, New Zealand, Russia and Ukraine, to pursue an umbrella group to trade emissions permits. Such a trading group could further contribute to cost-effective solutions to this problem.

JOINT IMPLEMENTATION AMONG DEVELOPED COUNTRIES

Countries with emissions targets may get credit towards their targets through project-based emission reductions in other such countries. The private sector may participate in these activities.

Additional details may be agreed upon by the Parties at future meetings.

CLEAN DEVELOPMENT MECHANISM

Another important free market component of the Kyoto Protocol is the so-called "Clean Development Mechanism" (CDM). The CDM embraces the U.S. proposal for "joint implementation for credit" in *developing* countries.

With the Clean Development Mechanism, developed countries will be able to use certified emissions reductions from project activities in developing countries to contribute to their compliance with greenhouse gas reduction targets.

This Clean Development Mechanism will allow companies in the developed world to enter into cooperative projects to reduce emissions in the developing world -- such as the construction of high-tech, environmentally sound power plants -- for the benefit of both parties. The companies will be able to reduce emissions at lower costs than they could at home, while developing countries will be able to receive the kind of technology that can allow them to grow more sustainably. The CDM will certify and score projects. The CDM can also allow developing countries to bring projects forward in circumstances where there is no immediate developed country partner.

Under the Clean Development Mechanism, companies can choose to make investments in projects or to buy emissions reductions. In addition, Parties will ensure that a small portion of proceeds be used to help particularly vulnerable developing countries, such as island states, adapt to the environmental consequences of climate change.

Importantly, certified emissions reductions achieved starting in the year 2000 can count toward compliance with the first budget period. This means that private companies in the developed world will be able to benefit from taking early action.

DEVELOPING COUNTRIES

Various Protocol provisions, taken together, represent a down payment on developing country

participation in efforts to reduce greenhouse gas emissions:

- Developing countries will be engaged through the Clean Development Mechanism, noted above.
- The Protocol advances the implementation by *all* Parties of their commitments under the 1992 Framework Convention on Climate Change. For example, the Protocol identifies various sectors (including the energy, transport, and industry sectors as well as agriculture, forestry, and waste management) in which actions should be considered in developing national programs to combat climate change and provides for more specific reporting on actions taken.

Developing countries may, as a prerequisite for engaging in emissions trading, voluntarily assume binding emissions targets through amendment to the annex of the Protocol that lists countries with targets. The Kyoto Protocol does not include a separate article for nations to voluntarily assume binding emissions targets.

Securing meaningful participation from key developing countries remains a priority for the United States. The Administration has stated that without such participation, it will not submit the Kyoto Protocol to the Senate for advice and consent to ratification.

MILITARY EMISSIONS

The Kyoto Protocol achieves the objectives identified by the Department of Defense where international agreement was necessary to protect U.S. military operations.

- Emissions from "bunker" fuels (for international maritime or aviation use) are exempted from emissions limits.
- Emissions from multilateral operations pursuant to the United Nations Charter are exempted from emissions limits. This includes not only multilateral operations expressly authorized by the UN Security Council (such as Desert Storm, Bosnia, Somalia) but also multilateral operations not expressly authorized that are nonetheless pursuant to the UN Charter, such as Grenada.
- Countries may decide, among themselves, how to account for emissions relating to multilateral operations (for example, U.S. training in another NATO country). This provision avoids the need to use emissions trading to allocate such emissions.

COMPLIANCE AND ENFORCEMENT

The Protocol contains several provisions intended to promote compliance. These include requirements related to measurement of greenhouse gases, reporting, and review of implementation.

The Protocol also contains certain consequences for failure to meet obligations. For example, as a result of a U.S.-proposed provision, a Party not in compliance with its measurement and reporting requirements cannot receive credit for joint implementation projects.

Effective procedures and a mechanism to determine and address non-compliance are to be decided at a later meeting. For both environmental and competitiveness reasons, the United States will be working on proposals to strengthen the compliance and enforcement regime under the Protocol.

ENTRY INTO FORCE

The Kyoto Protocol will be open for signature in March 1998. To enter into force, it must be ratified by at least 55 countries, accounting for at least 55 percent of the total 1990 carbon dioxide emissions of developed countries. U.S. ratification will require the advice and consent of the Senate.

Return to: Climate Change | Environment and Development

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Divider Title: _____

Stuart Eizenstat
Under Secretary of State for Economic, Business and Agricultural Affairs
Statement before the Senate Foreign Relations Committee
Washington, DC, February 11, 1998

Thank you, Mr. Chairman.

At the outset, let me thank those members of Congress, in this chamber and in the House of Representatives, who participated with us in the Kyoto Conference and who lent their advice and support to our efforts there. In particular I wish to thank Senators Hagel, Baucus, Chafee, Enzi, Kerry and Lieberman for taking the time to be present. I must also thank Senator Byrd, who could not be with us in Kyoto, for his interest and leadership. Rarely has there been an environmental issue more important or complex than global warming, and rarely has there been a greater need for the Executive Branch and the Congress to work closely together.

It is with great pleasure that I appear here today to explain the Administration's position on global warming. To this end, I will divide my testimony into four parts: (1) a short discussion of the science -- the driving force for all the efforts we have taken to date to mitigate a significant and growing global environmental problem; (2) a discussion of the results of the recent Kyoto Conference and key features of the Kyoto Protocol; (3) an effort to correct misperceptions; and (4) a brief review of the President's Climate Change Technology Initiative. I hope to leave you with a clear understanding of why we believe that it is necessary to act, of how we intend to proceed internationally, and of what the President plans to do here at home.

The Science

Human beings are changing the climate by increasing the global concentrations of greenhouse gases such as carbon dioxide, methane and nitrous oxide. Burning coal, oil and natural gas to heat our homes, power our cars and illuminate our cities produces carbon dioxide and other greenhouse gases as by-products -- more than 6 billion metric tons worth of carbon in the form of carbon dioxide annually. Similarly, deforestation and land clearing also release significant quantities of such gases -- another 1 to 2 billion tons a year. Over the last century, greenhouse gases have been released to the atmosphere faster than natural processes can remove them. There is no ambiguity in the data; since 1860, concentrations of carbon dioxide have risen 30 percent, from 280 parts per million (ppm) to 365 ppm.

In December 1995, the authoritative Intergovernmental Panel on Climate Change (IPCC), representing the work of more than 2,000 of the world's leading climate change scientists from more than 50 countries, concluded that "the balance of evidence suggests that there is a discernible human influence on global climate."

The IPCC Assessment represents the best synthesis of the science of climate change. It concludes:

- Concentrations of greenhouse gases could exceed 700 ppm by 2100 under "business as usual" -- levels not seen on the planet for 50 million years. The projected temperature increase of 2 to 6.5 degrees Fahrenheit over the next 100 years, could exceed rates of change for the last 10,000 years. For perspective, while there is some uncertainty, tropical sea surface temperatures in the last ice age were anywhere from 2 to 9 degrees Fahrenheit cooler than today.
- Increased temperatures are expected to speed up the global water cycle. Faster evaporation will lead to a drying of soils and in some areas increased drought. Overall, however, due to the faster global cycling of water, there will be an increase in precipitation.
  Sea levels are expected to rise between 6 and 37 inches over the next century. A 20 inch

- Sea levels are expected to rise between 6 and 37 inches over the next century. A 20 inch sea level rise could double the global population at risk from storm surges -- from roughly 45 million to over 90 million, even if coastal populations do not increase. Low-lying areas are particularly vulnerable (e.g., much of coastal Louisiana and the Florida Everglades).
- Human health is likely to be affected. Warmer temperatures will increase the chances of heat waves (like the Chicago event in 1995 that killed over 400 people) and can exacerbate air quality problems such as smog, and lead to an increase in allergic disorders. Diseases that thrive in warmer climates, such as dengue fever, malaria, yellow fever, encephalitis, and cholera are likely to spread due to the expansion of the range of disease carrying organisms. By 2100, there could be an additional 50-80 million cases of malaria each year.
- Agriculture, forests, and natural ecosystems are also likely to be affected. The poorest countries, already subject to food production and distribution problems, will likely suffer the greatest agricultural impacts. Doubling current carbon dioxide concentrations could lead to a dramatic change in the geographic distribution of one-third of the Earth's forests. (For example, the ideal range of some North American forest species would shift by as much as 300 miles to the north in the next 100 years -- far faster than their ability to migrate on their own.) Such changes could have profound effects on parks and wildlife refuges, and lead to a reduction in species diversity.

What Changes Have We Seen to Date?

The earth's temperature is increasing: Scientists from our National Oceanic and Atmospheric Administration (NOAA), the U.K. Meteorological Office and the National Aeronautics and Space Administration (NASA) all recently announced that 1997 was the warmest year on record. In fact, nine of the last 11 years are among the warmest ever recorded.

The water cycle of the planet may be speeding up: Since the beginning of the century, NOAA estimates that precipitation in the United States has increased by about 5 - 10 percent, while the frequency of heavy downpours (where more than 2 inches fall in a day) has increased by about 20 percent. The United States has had many recent reminders of how costly extreme events can be: the Mississippi flooding of 1993 led to damages of between $10 and $20 billion; the Southern Plains drought of 1996 was estimated to cost $4 billion; and the Northwest floods of 1996-97 about $3 billion. We have yet to learn what the current floods in California will cost. While no single event can be attributed to global warming, increases in floods and droughts are expected as global warming occurs.

Action Needed Now

Some have argued that we can wait to act until all the details of the climate system have been fully understood. The science tells us that this is a recipe for disaster. We will only fully confirm predictions when we experience them. At that point it will be too late. The concentrations of greenhouse gases in the atmosphere continue to rise each year, and because these gases will persist for many decades to centuries, this problem is only slowly reversed. The earth will continue to warm and the seas continue to rise as long as we continue to load the entire atmosphere of the earth with greenhouse gases. The problem has developed over the course of a century and it will take many decades to solve. Already, we have another 1.0 degree Fahrenheit of warming in the pipeline from emissions that have previously occurred, so some impacts will happen no matter what actions we take. Nevertheless, we can still forestall many others if we begin taking cost-effective actions now.

We should look at the Kyoto Protocol as an insurance policy against the potentially devastating and irreversible impacts of global warming. This insurance policy is fully justified today, based solely on our current understanding of the science. If we act now the premium will be far more reasonable than if we delay and hope the problem created by greenhouse gases will go away. It is like a life insurance policy whose costs grow significantly if we delay year after year insuring ourselves.

year after year insuring ourselves.

But there is a critical difference in the case of the climate system. In most insurance policies, the loser can be made whole -- restitution is possible; the building can be rebuilt, the stolen car replaced, the fire or flood damage repaired. In the case of global warming, we will not have a second chance -- failure to act will lead to irreversible consequences. We will be committing ourselves, our children and our grandchildren to a very different planet, and they will never forgive us.

But the premium for this insurance policy must be reasonable. For this reason we rejected unrealistic targets in Kyoto; we insisted on full recourse to market-mechanisms; and we opposed mandatory policies and measures -- like carbon taxes.

The totality of our scientific information, including that on vulnerability and impacts of global warming, provides a compelling reason to act.

Let me now turn to the recent Kyoto Conference.

Kyoto Protocol

Last December in Kyoto, Japan, the nations of the world reached agreement on an historic step to control greenhouse gas emissions which cause global warming. No sooner had the negotiating session ended, however, than some critics on both ends of the political spectrum, without a full examination of the results achieved, denounced the agreement as either too little too late or too much too soon. In fact, the Kyoto Protocol, reached only through the exercise of vigorous American leadership, represents an important achievement in the best interests of the United States. But it is a framework for action, a work in progress, not a finished product ready for Senate consideration.

U.S. Negotiating Objectives

In order to secure an effective agreement that is environmentally strong and economically sound, while protecting the unique worldwide interests of the U.S. military, President Clinton and Vice President Gore established three major objectives. As a result of the Kyoto negotiations, we achieved the first two -- realistic targets and timetables for reducing greenhouse gas emissions among the world's major industrial nations, which fully protect the unique role of our military in its global reach; and flexible market-based mechanisms for achieving those targets. The third, meaningful participation of developing countries, will be the focus of our work in the coming months and years, but with the Kyoto Protocol we have made an important down payment.

Elements of the Kyoto Protocol and Related Decisions

Our first objective -- realistic targets and timetables among developed countries -- had to be a credible step in reducing the dangerous buildup of greenhouse gases, yet measured enough to safeguard U.S. prosperity at home and competitiveness abroad. In the end, we secured the key elements of the President's proposal on targets and timetables, often over the initial objections of the European Union and other developed countries. The agreement and related decisions include:

- The U.S. concept of a multi-year time frame for emissions reductions rather than a fixed, single-year target. The multi-year time frame will allow the United States, other nations and our industries greater flexibility in meeting our targets. Averaging over five years, instead of requiring countries to meet a specific target each year, can lower costs, especially given an uncertain future. The averaging can smooth out the effects of short-term events such as fluctuations in the business cycle and energy demand, or hard winters and hot summers that would increase energy use and emissions.
- The U.S. specific time frame of 2008-2012, rather than earlier periods preferred by the

- The U.S. specific time frame of 2008-2012, rather than earlier periods preferred by the European Union and others, giving us more time to phase in change gradually and deploy new technologies cost-effectively, and thereby to cushion the effects on our businesses and workers.
- Differentiated targets for the key industrial powers ranging from 6% to 8% below baseline levels (1990 and 1995) of greenhouse gas emissions, with the United States agreeing to a 7% reduction. When changes in the accounting rules for certain gases and offsets for activities that absorb carbon dioxide are factored in, the level of effort required of the United States is quite close to the President's original proposal to return emissions to 1990 levels by 2008-2012, representing at most a 3 percent real reduction below that proposal, and perhaps less.
- An innovative proposal shaped in part by the United States, allowing certain activities, such as planting trees, that absorb carbon dioxide -- called "sinks" -- to be offset against emissions targets. This will both promote cost-effective solutions to climate change and encourage good forestry practices. As a major forestry nation this will be of special benefit to the United States.
- As proposed by the United States, the Kyoto Protocol covers all six significant greenhouse gases even though the E.U. and Japan proposed and fought until the last moment to cover only three. This was an important environmental victory -- also supported by many in our own industry -- because gases that other countries wanted to omit and leave uncovered (including substitutes for the now banned chloro-fluorocarbons that endanger the ozone layer) are among the fastest growing and longest lasting greenhouse gases.

Flexible Market Mechanisms

Our second broad Presidential objective was to make sure that countries can use flexible market mechanisms to reach their targets rather than the mandatory "policies and measures," such as carbon taxes, favored by the E.U. and many other developed countries.

The Kyoto Protocol enshrines a centerpiece of this U.S. market-based approach -- the opportunity for companies and countries to trade emissions permits. In this way, companies or countries can purchase less expensive emissions permits from companies or countries that have more permits than they need (because they have met their targets with room to spare). This is not only economically sensible, but environmentally sound. By finding the least expensive way to reduce emissions, we will be providing a strong incentive for achieving the maximum level of emissions reductions at the least cost. The United States has had a very positive experience with permit trading in the acid rain program, reducing costs by 50 percent from what was expected, yet fully serving our environmental goals.

This was a new concept for developed and developing countries alike -- some of whom fought it vigorously. But we have it firmly enshrined in the Kyoto Protocol and it is a critical way of ensuring cost-effective solutions. Its inclusion was a major victory for us.

We went even further by achieving a conceptual understanding with several countries, including Australia, Canada, Japan, New Zealand, Russia and Ukraine, to trade emissions rights with each other. This 'umbrella group' could further reduce compliance costs.

Ensuring that we can meet our target reductions cost-effectively will depend significantly on access to the flexibility mechanisms we fought hard to include in the Kyoto Protocol. Let me be very clear: The commitment we made in Kyoto would not have been made -- could not have been made -- were it not for the flexibility mechanisms that were also agreed there. Until we are satisfied with the rules and procedures yet to be established, the promise of Kyoto will never be realized.

Meaningful Participation of Developing Countries

Our third objective was to secure meaningful participation of key developing countries, a

Our third objective was to secure meaningful participation of key developing countries, a concern that the Senate obviously shares, as evidenced by last summer's Byrd-Hagel Resolution. Global warming is, after all, a global problem which requires a global solution -- not only from the developed world but also from key developing countries.

Per capita emission rates are low in the developing world and will remain so for some time, and over 70 percent of today's atmospheric concentrations of greenhouse gases attributable to human activities are the result of emissions by the industrialized world. At the same time, it is also true that by around 2015 China will be the largest overall emitter of greenhouse gases, and by 2025 the developing world will emit more greenhouse gases in total than the developed world. So from an environmental perspective, this problem cannot be solved unless developing countries get on board.

We encountered significant resistance in Kyoto by some developing countries to meaningful participation in solving the global warming problem. For example, we had sought to include a specific process through which advanced developing or newly developed countries could take on quantified emission limitation commitments and thereby take part in the international emissions trading regime. While a number of developing countries expressed interest in our proposal and supported it in Kyoto, others rejected it, and it was not possible to include such a specific process in the Protocol. Still, developing countries may nevertheless, as a prerequisite for engaging in emissions trading, voluntarily assume binding emissions targets through amendment to the annex of the Protocol that lists countries with targets.

Some developing countries believe -- wrongly -- that the developed world is asking them to limit their capacity to industrialize, reduce poverty and raise their standard of living. We have made clear that we support an approach under which developing countries would continue to grow -- but in a more environmentally sound and economically sustainable way, by taking advantage of technologies not available to countries that industrialized at an earlier time.

The Kyoto agreement does not meet our requirements for developing country participation. Nevertheless, a significant down payment was made in the form of a provision advanced by Brazil and backed by the United States and the Alliance of Small Island States. This provision defines a "Clean Development Mechanism," which embraces the U.S.-backed concept of "joint implementation with credit." The goal is to build a bridge -- with incentives -- between developed, industrialized countries, and developing nations. This new mechanism will allow companies in the developed world to invest in projects in countries in the developing world -- such as the construction of high-tech, environmentally sound power plants -- for the benefit of the parties in both worlds. The companies in the developed world will get emissions credits at lower costs than they could achieve at home, while countries in the developing world will share in those credits, and receive the kind of technology that can allow them to grow without ruining their environment.

The Clean Development Mechanism has great potential, but developing countries will need to do more in order to participate meaningfully in the effort to combat global warming. In determining what developing countries ought to do, we should be aware that the circumstances of developing countries vary widely, along a kind of continuum. Some today are very poor; their greenhouse gas emissions are negligible and are likely to remain so for the foreseeable future. Others, whose greenhouse gas emissions are not substantial, are relatively well off. Some are poor on a per capita basis, but their greenhouse gas emissions today rival or surpass those of the most advanced industrialized nations. Still others have already joined ranks with the industrialized world in the OECD but have not yet fully accepted the added responsibility for protection of the global environment that comes with their new status.

Any 'one-size-fits-all' approach to the 'meaningful participation of developing countries' and to satisfy the Byrd-Hagel Resolution is thus unlikely to prevail. We found in Kyoto that even among the industrialized countries it was necessary to recognize the individual national circumstances faced by those differently situated in order to reach agreement, notwithstanding our common purpose. Similarly, any uniform, inflexible approach to the 'meaningful

participation of developing countries' is unlikely to prevail.

As Senator Byrd said in his letter of December 15, 1997, to the President, and recently restated on January 29 here in the Senate:

> "...binding commitments for developing nations should be paced according to the ability of each country to achieve greenhouse gas emission limitations appropriate to its national circumstances and economic growth. These limitations could be gradually implemented. Whether such commitments are in fact appropriate and represent best effort by each nation, will not be difficult to discern. As the saying goes, we will know it when we see it."

Recognizing our "common but differentiated responsibilities and respective capabilities" it will be necessary to develop an approach that provides for a meaningful global response to the threat of global warming, while acknowledging the legitimate aspirations of developing countries to achieve a better life for their peoples. To succeed, we will need to ensure that those responsible for a significant share of global emissions accept their responsibility to protect the global environment. We will also need to ensure that those who are able to do so contribute according to their capacities and stage of development.

Some Misperceptions

Before moving on, Mr. Chairman, let me address a few specific points on which I believe there may be some misperceptions. The first of these is that the Kyoto Protocol will damage our national security or imperil the ability of our military to meet its worldwide responsibilities -- this is not true.

We took special pains working with the Defense Department and the uniformed military before and in Kyoto to protect the unique position of the United States as the world's only superpower with global military responsibilities. We achieved everything they outlined as necessary to protect military operations and our national security.

At the Kyoto Conference, the Parties took a decision to exempt key overseas military activities from emissions targets, including exemptions for "bunker fuels" (those used in international aviation and maritime transport) and for emissions resulting from a wide range of multilateral operations, such as peacekeeping and humanitarian relief. This exempts from our national targets not only multilateral operations expressly authorized by the U.N. Security Council (such as Desert Storm or Bosnia), but also multilateral operations that the United States initiates pursuant to the U.N. Charter without express authorization (such as Grenada). Countries may also decide among themselves how to account for emissions relating to multilateral operations (e.g., U.S. training in another NATO country) without going through emissions trading.

Second, it has been suggested that the Protocol will create a super U.N. Secretariat that will threaten U.S. sovereignty and national decision-making through alleged intrusive verification procedures and prior approval of individual emissions trades. That is not so. The review process contained in the Protocol largely codifies the existing practice under the 1992 Framework Convention, to which the United States is a Party. Under the Protocol, small expert review teams will continue to visit Annex I countries for brief periods to review implementation of the Convention and of the Protocol. The review process is intergovernmental, in that experts are nominated by governments. The review teams meet with government officials, and with others by invitation. In reviews under the Convention, the teams have met with Congressional staff, representatives of the private sector and representatives of environmental organizations -- but only with their concurrence. Any other visits, such as site visits, would take place only if approved by the host country and, if the private sector is involved, the relevant interested persons. To date under the Convention, no site visits have taken place.

In addition, let me be unmistakably clear -- while trading rules must be established internationally to have emissions trading work -- as our SEC must set rules for equity trading -- we will not accept nor do we anticipate an approach that would require prior approval of individual emissions trades by an international body. Trading will be done between interested nations and their companies, based on market principles.

Concerns have also been raised that the Protocol is flawed, on the one hand because it will threaten U.S. sovereignty by dictating national decisions on implementation and, on the other hand, because it lacks mechanisms to verify compliance. In fact we believe that the Protocol strikes an appropriate balance between these two extremes.

- The United States firmly opposed mandatory, harmonized policies and measures that would be imposed upon us in order to reach our target. We prevailed. The Protocol leaves Parties entirely free to decide how best to meet their targets based on national circumstances.
- At the same time, we could not tolerate a free-for-all where Parties might or might not meet their commitments, particularly given the conscientious way the United States meets its international obligations. As a result, the Protocol calls for national measurement of emissions, detailed reporting, and in-depth reviews -- on an intergovernmental basis.
- The one area where we believe more work needs to be done is in identifying appropriate consequences for non-compliance; the Protocol provides for elaborating such consequences, with any binding consequences to be done in amendment form, so that the Senate would have the opportunity to approve them.

Finally, some have suggested that the Protocol will result in a huge government transfer of foreign aid to Russia in which we will give away taxpayer money with no leverage on Russian policies with these funds. This also is not true. Under the Protocol's emissions trading provisions, we envision that U.S. private sector firms may choose to purchase international emissions credits in order to meet their emissions obligations. Indeed, the private purchase of emissions credits is one of the crucial ways to achieve cost-effective emissions reductions for U.S. firms.

As with any market transaction, purchases of these credits will have to comply with all U.S. legal and regulatory requirements. In addition, U.S. firms interested in international investment will have an incentive to ensure that other countries meet the international standards for adequate monitoring and reporting of their emissions of greenhouse gases. At the same time, Russia will have significant incentives to use the revenue generated to invest in the most modern, climate-friendly plants and equipment so that, as its economy recovers, it continues to produce emissions credits that it can sell on international markets.

Framework for Action

Where do we go from here? While historic, the Kyoto Protocol is only one step in a long process. It is, in essence, a framework for action, a work in progress, and a number of challenges still lie ahead.

Rules and procedures must be adopted to ensure that emissions trading rights, joint implementation and the Clean Development Mechanism operate efficiently and smoothly. The Kyoto Protocol establishes emissions trading, but leaves open the specifics of operations. We will work hard to ensure that the rules and procedures adopted enable emissions trading, joint implementation and the Clean Development Mechanism to work smoothly and efficiently, thereby encouraging the private sector to engage.

We will also work closely with our industries to be sure they are satisfied that the emissions trading system which is developed is as efficient and effective as possible to meet their needs.

Most significant, we must work to secure the meaningful participation of key developing countries. We must be creative in initiating bilateral agreements. We have made a promising start with an agreement we reached with China during last fall's Summit. We must also use regional and multilateral fora to achieve our objectives -- such as the Summit of the Americas process, in the Asian Partnership for Economic Cooperation (APEC) process, the President's forthcoming trip to Africa, and the G-8 Summit in the United Kingdom. We will put on a full court diplomatic press to bring developing nations into a meaningful role in helping solve the global climate challenge. We will accept nothing less, nor would we expect the United States Senate to do so As the President has indicated, the United States should not assume binding obligations under the Protocol until key developing countries meaningfully participate in meeting the challenge of climate change. Although the Kyoto Protocol was an historic step forward, more progress is necessary with respect to participation of key developing countries. It would be premature to submit the treaty to the Senate for its advice and consent to ratification at this time.

The Administration also plans to continue to work with the international financial institutions to promote market-based energy sector policies in developing countries that will help reduce developing country greenhouse gas emissions. Multilateral development bank policies, including those of the Global Environment Facility, strongly influence international lending and private capital flows for energy, industrial and transportation investments. Policies that favor market pricing, privatization, clean technologies and environmentally-friendly approaches will make implementing the Kyoto Protocol easier and will speed the growth of markets for new technologies that help reduce emissions in developing countries. We will work with the international financial institutions themselves -- from the World Bank to the regional development banks -- and with other countries, especially developed countries, to achieve these goals in the coming years.

The Kyoto agreement does not solve the problem of global warming, but it represents an important step in dealing with a problem that we cannot wish away. A premature decision to reject the Protocol would deprive us of the opportunity to complete its unfinished business. If we fail to take reasoned action now, our children and grandchildren will pay the price.

Mr. Chairman, before turning briefly to our domestic efforts, let me note two other key elements in this equation -- the contributions that the United States provides to carry out work under the U.N. Framework Convention on Climate Change and in the Intergovernmental Panel on Climate Change (IPCC), as well as the contributions that we make to the Global Environment Facility (GEF). For FY 1999, the President has requested $314 million for the International Organizations and Programs Account, a level that represents a 6.6 percent increase over FY 1998. This amount includes $8 million for the Climate Stabilization Fund which supports the Framework Convention and the IPCC. Parties to the Convention have much work ahead of them, as I have already noted. In addition, the IPCC has now embarked on its Third Assessment Report of Climate Change, scheduled for completion in late 2000 or early 2001. These funds are vital to ensuring U.S. leadership in both of these organizations and to ensuring that our views and the work of our scientists are taken fully into account.

In addition, the President has requested $300 million to meet our past and current pledges to help fund the Global Environment Facility (GEF). The GEF helps developing countries act to protect the global environment in several key focal areas including international waters, biodiversity, climate change and depletion of the stratospheric ozone layer. If we want to bring developing countries on board with real commitments to limit greenhouse gas emissions, we need to demonstrate that we are a reliable partner by supporting their concrete efforts with reliable resources. At this point, our GEF shortfall damages U.S. credibility in promising to help developing countries meet the climate change obligations we are urging that they undertake. I would therefore urge the Congress to fund fully our $300 million request, to meet our current pledge and also clear our substantial shortfall of nearly $200 million.

President's Climate Change Technology Initiative

In his State of the Union address, President Clinton said that global warming is "the gathering crisis that requires worldwide action." We need to begin now to launch the sensible, cost-effective efforts that will help us avoid the high future cost of inaction.

The President last October outlined a three-stage approach to addressing climate change at home. The first stage consists of immediate actions to stimulate development and use of technologies that can minimize the cost of meeting U.S. goals in reducing greenhouse gas emissions. Stage two will review options created through ongoing technology development and lead to detailed plans for a domestic, market-based permit trading system for carbon emissions. Stage three will begin to implement a market-based emissions-trading system.

As a first installment on this plan, President Clinton announced in his State of the Union message two weeks ago his proposal for a $6.3 billion Climate Change Technology Initiative over five years to cut U.S. greenhouse gas emissions -- $1.3 billion higher than the President announced in his initial plan in October. This vigorous initiative calls for tax cuts coupled with research and development (R&D) to take cost-effective, practical steps that will position us well to meet the challenge we face early in the next century.

This initiative consists of two parts -- $3.6 billion in tax credits for energy-efficient purchases and renewable energy, and $2.7 billion in new R&D spending over five years.

The tax package includes tax credits of $3,000 to $4,000 for consumers who purchase advanced technology, highly fuel efficient vehicles. It 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. It also includes a 20 percent credit (subject to a cap) for purchasing energy-efficient building equipment, a $2,000 credit for purchasing energy efficient new homes, extension of the wind and biomass tax credit, and a 10 percent investment credit for the purchase of combined heat and power systems.

The R&D component covers the four major carbon-emitting sectors of the economy (buildings, industry, transportation and electricity), plus carbon removal and sequestration, Federal facilities, and cross cutting analysis and research. Examples of this R&D effort include the Partnership for a New Generation of Vehicles (PNGV), a government-industry effort to develop affordable cars that meet all applicable safety and environmental standards and get up to three times the fuel efficiency of today's cars. In 1999, the President's budget for PNGV is $277 million, up from $227 million appropriated for 1998. Our PNGV effort is clearly paying off -- the developments about higher mileage cars announced by the Big Three last month were assisted by research supported under PNGV. It is exciting to see our U.S. automakers already planning for the cars of the future, not as pipe dreams but as achievable greenhouse gas friendly products.

As General Motors Chair and CEO John F. Smith said recently in announcing GM's plans to step up research spending and focus on bringing new products to market, "No car company will be able to thrive in the 21st century if it relies solely on internal combustion engines." And as William C. Ford, Jr., Chair of Ford's Finance Committee, also said in announcing that Ford will join with Daimler-Benz of Germany in developing cars with fuel-cell engines, "There's a compelling business case to be made."

Similar government-industry efforts are proposed to develop cleaner, more efficient diesel engines for both light trucks and heavy trucks. The R&D effort also includes expanded research partnerships for key renewable technologies such as wind, photovoltaics, geothermal, biomass, and hydropower to accelerate price reductions and improve performance. The President's 1999 budget proposes a $100 million increase in appropriations for solar and renewable energy R&D -- a 37 percent increase over 1998.

We hope that the Congress will view the President's initiative favorably and appropriate the funds and enact the tax incentives that he has requested. We look forward to working with you to put the President's proposals into action.

The President and his Administration are committed to working with you in the Congress, both to realize the potential of the Climate Change Technology Initiative and to craft the ongoing U.S. approach to climate change. The United States has the power to lead the global effort, and Congress holds the key. What is done or not done today will determine the kind of world we will leave to future generations and the conditions of life they will face.

Sustained Effort Required

Mr. Chairman, I have mentioned that Kyoto produced a framework for future action, and I have listed a number of the steps that await us.

Coming to grips with the threat of global warming is no small task. We must tackle it in a vigorous, sober and determined manner, understanding that it represents a challenge but also an opportunity. And as we have always done in the face of global challenge, we must assume the responsibilities of American leadership.

Thank you.

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Environment and Development | Global Issues

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7

Divider Title: _____

THE PRESIDENT'S NEW PARTNERSHIP FOR HOUSING:
HELPING HOMEOWNERS CUT ENERGY COSTS AND FIGHT GLOBAL WARMING

Today, President Clinton launches a new partnership with America's building industry to dramatically improve the energy efficiency of our homes -- cutting consumers' energy bills by 30-50 percent, while reducing the greenhouse gases that cause global warming. At a Los Angeles construction site, where building will soon commence on 186 energy-efficient homes, the President will tour a model home with advanced energy-saving features that will cut homeowners' utility bills by $230 a year. By promoting the use of these and other advances in new and existing homes, ***the new Partnership for Advancing Technology in Housing (PATH) could save consumers $11 billion a year in energy costs by 2010 and reduce annual carbon emissions in 2010 by nearly 24 million tons -- the amount produced by some 20 million cars.***

Advanced Housing for the 21st Century. PATH brings together federal agencies, state and local governments, and the building, finance and insurance industries to spur design and construction innovations for the next generation of American housing. The goal is homes that are stronger, more affordable, more comfortable and far more energy-efficient.

> ***Over the next decade, PATH aims to cut energy use by 50 percent in new homes, and by 30 percent in 15 million existing homes, while reducing the monthly cost of new housing by 20%.***

Meeting the Challenge of Climate Change. Rising emissions of greenhouse gases, primarily from the burning of fossil fuels, threaten to warm the planet 2-6 degrees over the next century. Likely results include rising sea levels, the spread of infectious disease, increased flooding and drought, and extreme weather like that caused by this winter's El Nino. ***Energy use at home accounts for about 20 percent of U.S. emissions of greenhouse gases.*** PATH is part of a comprehensive Administration strategy to fight climate change through cost-effective steps that cut emissions while creating opportunities for economic growth.

A Commitment to Work Together. PATH joins government and industry in a coordinated strategy to identify promising housing technologies and swiftly move them to market.

> ***Federal partners,*** led by the Department of Housing and Urban Development and the Department of Energy, commit to support research, facilitate removal of barriers to new technology, and provide technical assistance.
>
> ***Industry partners*** commit to fund research, bring advanced products to market, share information and work with government to demonstrate new technologies.
>
> ***State and Local Government*** partners commit to streamline approval processes so new technologies are rapidly deployed and devote resources to local pilot projects.

PATH Projects Around the Country. The 186-home Village Green development in Los Angeles is one of several PATH pilot projects under way. Others include a Tucson project that is the largest "sustainable" master-planned development in the United States and a "new traditional" neighborhood being built on a decontaminated "brownfields" site in Pittsburgh.

Tax Incentives for Energy Efficiency. To further promote energy efficiency and clean energy technologies, the President's Fiscal Year 1999 budget proposes a five-year $6.3 billion package of tax incentives and research investments. Included are $200 million in tax credits for the purchase of ultra-energy-efficient homes and $1.4 billion in tax credits for the purchase of energy-saving systems and appliances for buildings and homes. The budget also proposes $200 million next year to accelerate R&D for appliances and construction. ***The President calls on Congress to approve this common-sense package of tax and research incentives to build a stronger economy and a stronger environment.***

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Divider Title: _____

PATH: ADVANCED HOUSING FOR THE 21ST CENTURY

PATH's primary goal is to dramatically improve the energy efficiency, quality, durability and affordability of new and existing homes.

The Partnership for Advancing Technology in Housing (PATH) brings together federal agencies, state and local governments, and the building, finance and insurance industries to spur technological innovations for the next generation of American housing. Federal agencies, with policy leadership provided by the Department of Housing and Urban Development and the Department of Energy, will serve as a catalyst, working with the private sector to identify promising technologies and swiftly bring them to market. Some examples: ultra efficient heating and cooling systems, a new generation of windows that provide as much insulation as most walls today, and roof shingles that generate solar power.

PATH partners will work together on:

Collaborative Research on Next-Generation Technologies. PATH partners will collaborate to develop and evaluate technologies that can achieve both performance and cost goals. A national ***Conference on the Future of the American House*** in early 1999 will help set the research agenda. Federal research related to residential housing will focus on PATH goals and the evolving research agenda.

Moving Technology from the Laboratory to the Marketplace. Because the housing industry is large and dispersed, it can take 10 to 25 years for a new technique or product to gain wide acceptance. PATH aims to cut that time in half by removing market barriers, developing national testing and evaluation standards and streamlining approval processes. A ***blue-ribbon panel*** made up of experts from among PATH members will investigate regulatory and other barriers. Federal, state and local organizations are committed to helping remove unnecessary barriers and encourage adoption of cost-effective new technologies.

Stimulating Wider Use of Existing Products. One way to move technology to markets more efficiently is to ensure that accurate information about innovative products and experience with their use is readily available. PATH will help get the work out to builders, suppliers and consumers through a ***new website*** available in early June (**http://www.pathnet.org**). Information for consumers about making their homes more energy efficient is available now at (**http://eetd.lbl.gov/path**).

PATH GOALS

Using voluntary approaches, the partnership aims to develop innovative housing components, designs and production methods and reduce by half the time needed to move quality technologies to market. Our goal is that within a decade, technologies widely accepted in the market will make it possible to produce housing that is affordable and at the same time to:

- Cut the environmental impact and energy use of new housing by 50 percent and reduce energy use in at least 15 million existing homes by 30 percent or more.

- Improve durability and reduce maintenance costs by 50 percent; and reduce by at least 10 percent the risk of loss of life, injury and property destruction from natural hazards; and,

- Reduce the monthly cost of new housing by 20 percent or more.

PATH PARTNERS

More than three dozen companies and major trade associations are joining with federal agencies and state and local governments as charter members of this new partnership.

Federal partners will coordinate their efforts to serve as a one-stop shop for other PATH partners and to support a range of PATH activities. Federal participants are: the Departments of Agriculture, Commerce, Energy, Housing and Urban Development, and Labor; the Environmental Protection Agency; NASA; the Federal Emergency Management Agency; the National Institute of Occupational Safety & Health; and the National Science Foundation. HUD will have responsibility for the day-to-day management of PATH, while HUD and DOE will jointly provide federal policy leadership for the partnership.

- More than $70 million is already committed, and the Administration has requested over $100 million for Fiscal Year 1999 to develop and test new building systems, equipment and appliances.

- The 1999 funding request includes $10 million in additional funds for HUD's work to further expand the PATH partnership and move more quickly toward achievement of its goals.

- A new program at the National Institute of Standards and Technology (NIST) will develop tools to evaluate the performance of new housing technologies.

- The Federal Emergency Management Agency (FEMA) will help communities struck by emergencies such as hurricanes, earthquakes use disaster-resistant technologies when rebuilding.

- The Environmental Protection Agency will expand its Energy Star residential program to encourage improvement in the home energy efficiency and resulting increased comfort, improved indoor air quality, and improved construction quality.

Industry partners, including the National Association of Home Builders, the Manufactured Housing Institute, and the Institute for Business and Home Safety, will make good-faith efforts to make products meeting PATH goals widely available. In addition, they will:

- Work with federal and state agencies to test new designs and share testing costs.

- Share non-proprietary information on costs, benefits and other characteristics of building innovations.

- Test experimental technologies in pilot homes and more mature technologies on a

larger scale.

- Share in the costs of research and development.

State and local government partners will work with the private sector to carry out pilot projects and will promote wider adoption of promising technologies. They will:

- Find ways to streamline permitting and other approval processes to ensure rapid adoption of PATH technologies.
- Provide personnel and other resources to ensure the success of pilot projects.
- Provide flexibility in local building codes to promote PATH goals.

PATH PILOT PROJECTS

Several major developments around the country -- some being planned, others already under way -- will serve as the first PATH pilot projects. They include:

Los Angeles -Village Green, adjacent to the Sylmar/San Fernando Metrolink Station, is the largest transit-based development in Los Angeles County. With help from PATH, the 186 single-family homes will be at least 30 percent more energy-efficient than typical new homes. In addition, the L.A. Department of Water and Power will help pay the of cost of super-energy-efficient refrigerators, washing machines and other appliances.

Tucson - The city is working with Community of Civano LLC on the largest "sustainable" master-planned development in the United States. A solar photovoltaic manufacturing plant has been built. Construction of a 20,000 square-foot neighborhood center is under way, and work will soon begin on the first of 2,500 homes incorporating advanced materials and energy and telecommunications technologies.

Pittsburgh - Summerset at Frick Park, a "new traditional" neighborhood of 713 homes, will be built on a decontaminated "brownfields" site 5 miles from downtown. The project, a public/private partnership, will incorporate advanced materials and technologies and the homes will use at least 35 percent less energy than required by local standards.

Denver - The City and County of Denver have committed to work with the PATH program to develop and incorporate sustainable development guidelines at the redevelopment of the former Stapleton Airport; and to develop a PATH pilot project at one or more sites in the community, including as possible sites the former Lowry Air Force Base or the former Stapleton Airport.

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Divider Title: _____

Meeting the Challenge of Global Climate Change
June 1998

Global climate change is one of our greatest environmental challenges. The world's leading scientists tell us that this problem is real and that the threats it poses -- such as increasingly frequent and severe storms and droughts, potential increases in asthma and infectious diseases and rising sea levels -- are too serious to ignore.

The Clinton Administration is working hard at home and with our partners abroad to address climate change. Domestically, we are working to implement the President's balanced, reasonable plan for reducing greenhouse gas emissions. Internationally, we are seeking to build on the agreement reached in Kyoto last December.

THE SCIENCE OF CLIMATE CHANGE

Scientists know that greenhouse gases in nature keep the Earth's temperature an estimated 60 degrees Fahrenheit warmer than it would be absent such gases, thus sustaining our existence on the planet.

As a result of human activities, the concentration of carbon dioxide (the principal greenhouse gas) has increased 30% since preindustrial times. If we continue on a business-as-usual trajectory, concentrations could double current levels of carbon dioxide by 2100, producing the highest level of CO2 in 50 million years. Climate models project an increase in global temperature of about 2-6.5° F by 2100. By way of reference, a cooling in average temperatures of 9° F brought on the last ice age.

There is substantial evidence that global warming is well under way. Studies have shown that the 20th century has been the warmest century in 600 years, 1990s have been the warmest decade in that period, and 1997 has been the single warmest year.

POTENTIAL IMPACTS OF CLIMATE CHANGE

The impacts could be serious as CO2 concentrations reach and exceed two times preindustrial levels:

- ***Human health.*** Warmer temperatures are projected to increase fatalities from heat stress of the kind that killed 400 in Chicago in 1995 and expand the geographic ranges for diseases like malaria and dengue fever. The incidence of asthma and other respiratory illnesses, particularly among children and the elderly, is expected to increase from the additional smog caused by warmer temperatures.

- ***Extreme weather.*** Warmer, wetter weather is projected to increase the frequency and intensity of extreme events such as floods and drought. The 1993 Mississippi River flood alone caused damages of $10-20 billion, while the Pacific Northwest floods in 1996-97, and the 1997 Ohio River and Red River floods resulted in substantial costs to business and homeowners.

- *Sea level rise.* Scientists project that sea level will rise by an additional 6-38 inches by 2100. A 20-inch rise could inundate 7,000 square miles of the U.S. coastline, with Florida and the Gulf Coast at greatest risk. Changes in rain and snowfall could affect water supplies and water quality, posing threats to irrigation, fisheries, and drinking supplies.

- *Agricultural impacts.* Changes in growing seasons, water availability, soil moisture and precipitation could cause significant regional shifts in food productivity, with decreases in food production in many of the world's poorest regions.

- *Degrading of natural ecosystems.* During the next century, the geographical range of forests is expected to move several hundred miles north exceeding the ability of many forests to migrate. The northeast may lose its beech trees and sugar maples. Western conifer forests will likely shrink.

PRESIDENT CLINTON'S PLAN

Domestic Program

In October 1997, President Clinton outlined an environmentally and economically sound plan for reducing U.S. greenhouse gas emissions. This plan emphasizes win-win initiatives designed to cut emissions by increasing energy efficiency; developing new, cleaner energy technologies; working with industry and others to promote sensible solutions; and relying on market-based mechanisms to ensure cost-effective reductions.

- *Tax incentives and R&D.* The President's plan includes a vigorous program of tax cuts and research and development aimed at improving energy efficiency and spurring the use of renewable energy sources. The package amounts to $6.3 billion over 5 years -- $3.6 billion in tax cuts and $2.7 billion in new investment.

  ▸ The **tax incentive package** includes a tax credit of up to $4,000 for consumers who purchase highly efficient vehicles; a tax credit of up to $2,000 for energy-efficient new homes; a 15% tax credit (with a $2,000 limit) for rooftop solar equipment; a 20% tax credit (subject to a cap) for energy-efficient building equipment for homes and offices; a 10% tax credit for investment in combined heat and power systems; and an extension of a current tax credit of 1.5 cents per kilowatt hour for the production of electricity from wind and biomass.

  ▸ The **investment package** includes research and development spending in the major carbon-emitting sectors of the economy -- buildings, transportation, and industry. Among projects to be expanded is the Partnership for a New Generation of Vehicles, a government-industry effort to develop highly-efficient cars, and the Partnership for Advancing Technologies in Housing. Substantial funds will also be invested in research partnerships for key renewable energy technologies.

- *Industry consultations.* A second component of the President's plan 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. As part of these consultations, the Administration will discuss ways to ensure credit for that businesses that act early.

▸ On May 4, President Clinton announced one important new partnership -- the **Partnership for Advancing Technology in Housing (PATH)**. This partnership with the homebuilding sector is designed to build new homes that are 50% more energy efficient within a decade and to retrofit at least 15 million existing homes within a decade to make them 30% more energy efficient. Meeting PATH goals would save consumers $11 billion a year in energy costs by 2010 and reduce annual carbon emissions in 2010 by nearly 24 million tons -- the amount produced by some 20 million cars.

▸ In another recent government-industry development, the Environmental Protection Agency and the Department of Energy extended their joint **Energy Star** program to commercial buildings that achieve a 30% reduction in energy use. The Energy Star program allows manufacturers of selected energy efficient products to promote their products with an "Energy Star" label. Among the major buildings that have already signed up for the Energy Star building program are the Empire State Building, World Trade Center, and Chicago's Sears Tower.

- ***Federal energy use and procurement.*** A third element of the President's plan is to substantially reduce the Federal government's own greenhouse gas emissions by improving the energy efficiency of Federal facilities and activities and by reforming procurement practices. These actions would be important in their own right, since the Federal government is the nation's largest single energy user, but they can also set an important example for the private sector.

- ***Electricity restructuring.*** Another core element of the President's plan involves restructuring the electricity industry in such a way as to reduce greenhouse gas emissions while saving consumers millions on their energy bills. The Administration's restructuring proposal includes a renewable portfolio standard to increase the use of electricity from renewable sources and a $6 billion/year Public Benefits Fund to spur greater investment in energy efficiency and renewable resources.

- ***Domestic emissions trading.*** The President has proposed a domestic emissions trading system to begin by 2008, after a decade of experience in reducing emissions The goal of such a regime is to ensure that further cuts are achieved as cost-effectively as possible. The U.S. has used emissions trading successfully to reduce the pollution that causes acid rain -- exceeding environmental objectives at costs far lower than anticipated.

- ***Scientific research.*** The Administration is continuing strong support for the U.S. Global Change Research Program. This program is focused on increasing our knowledge of the timing and regional patterns of the climate changes we expect, the combined effects of natural variation and human actions, and the vulnerability of natural resources. A strong foundation of peer-reviewed science results will support sound policy making and the evaluation of actions taken to confront the challenge of climate change.

Diplomatic Agenda

U.S. leadership ensured that the international climate change agreement negotiated in Kyoto, Japan, brought the power of the free market to bear in protecting the global environment. The protocol includes strong, realistic emissions reduction targets and U.S. proposals for flexible, market-based mechanisms to achieve them. The U.S. continues to work towards meaningful participation by developing countries and to work towards establishing rules and guidelines for putting agreed market mechanisms into practice.

- ***Emissions targets.*** The flexibility the U.S. negotiated into the emissions targets include a multi-year time frame (2008-2012), giving our economy and our technologies more time to adapt; differentiated targets for developed countries; coverage of all six greenhouse gases and of so-called "sinks" -- activities that absorb carbon dioxide.

- ***Flexible market mechanisms.*** The Protocol includes key market mechanisms that will provide companies with real flexibility in how they achieve emissions reductions -- international emissions trading and the Clean Development Mechanism (CDM). International trading among countries that have taken on targets has the potential to cut the cost of reducing emissions significantly. The CDM establishes the right for U.S. companies to secure low-cost emissions credits by participating with developing countries in specific projects to reduce their emissions.

- ***Meaningful participation by developing countries.*** President Clinton has called for the meaningful participation of key developing countries in reducing emissions and will not submit the Kyoto Protocol to the Senate until such participation is achieved. The Kyoto Protocol makes an important down payment (principally through the CDM), and the Administration is actively engaged now in seeking greater participation from key developing countries.

CONCLUSION

For the past 25 years, efforts to protect the environment, whether by cleaning our air and water, eliminating acid rain or closing the ozone hole, have been repeatedly assailed as a threat to our economy. Yet today we have the cleanest environment in a generation and the strongest economy in a generation. President Clinton's balanced approach to the challenge of climate change will allow us to grow the economy and protect the environment at the same time.

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Divider Title: _____

Remarks By Vice President Al Gore
New Findings on El Nino and Climate Change
Monday, June 8, 1998
(As Prepared)

Thank you, Dr. Baker. I commend you and the entire staff at NOAA for the work you've done throughout this El Nino. Your forecasters saw the El Nino coming well in advance, and if not for the early warning, the damage would have been far greater. We owe you a great deal of thanks for that.

James Lee Witt of FEMA couldn't be with us today, but we're indebted to him and his staff as well for all they did to help families and communities brace for this El Nino and recover from its devastating impact. The two agencies formed a very solid team, and we can be thankful for the fine job they've done.

Let me add that I've seen first-hand the terrible human impact of extreme weather this past year -- from the ice storms in Maine, to the ferocious twister that struck my state of Tennessee, to the powerful tornado that swept through Spencer, South Dakota just last week.

At its heart, this is about much more than weather and climate patterns -- it's about flesh-and-blood families who need protection from disaster, and help rebuilding their lives and communities once disaster strikes.

We can be thankful that El Nino is showing signs of winding down.

It wreaked havoc not just in the United States, but across the world -- including record heat and drought, record rainfall, and now blazing forest fires. And the impact of those fires is felt right here. Smoke and haze from the Mexican fires have blanketed Southern Texas and blown as far north as Minnesota and Wisconsin. We are working with Mexico to contain these terrible fires.

And this morning, I am pleased to announce that we will also support Mexico's efforts to replant and restore damaged forests -- concentrating on those that are rich in biodiversity. In addition, I'm pleased to announce a new NASA website tracking these fires around the world with state-of-the-art satellite imagery.

As El Nino fades, we need to take a very careful look at the extreme weather we've just been through and what it implies for our future. The report we are releasing today is an important first step. Here is what it tells us: Global warming appears to be making the effects of El Nino even worse.

Let me be very clear about what we're saying. El Ninos are naturally occurring events. We experienced El Ninos long before human activity dramatically increased the concentration of greenhouse gases in our atmosphere. But now, when an El Nino arrives, it comes against the backdrop of rising global temperatures. This century is the warmest in 600 years, 1997 was the warmest year on record, and global temperatures in the first five months of this year have been unprecedented.

As the data in this report show **[POINT TO CHART 1]**, each and every month so far this year has set a new record for global temperature. And the new records are substantially higher than the old ones.

When you look at the January-through-May figures going back to 1880 **[POINT TO CHART 2]**, you see the long-term warming trend, and you see just how unprecedented this year's temperatures are. Across the United States, temperatures were 2.5 degrees higher than average. The Northeast was 4.4 degrees warmer than normal. And in the Great Lakes region, the difference was a full 6.4 degrees. As you can see on this map **[POINT TO MAP]**, nearly half the states had temperatures well above normal.

Thirteen had their warmest January-through-May on record.

So, how does this warming trend affect El Nino? NOAA's scientists have gone back and looked at the 10 strongest El Nino events of this century. They found two things **[POINT TO CHART 3]**: First, El Ninos are occurring more frequently. Second, they are getting progressively warmer. We can't say for sure whether the increased frequency is a direct result of global warming. But we know that as a result of global warming, there is more heat in the climate system, and it is heat that drives El Nino. So when El Nino comes, its effects -- extreme temperatures, extreme precipitation -- are likely to be compounded by global warming.

It's like pumping high-octane fuel into your El Nino engine.

Clearly, it will take more research to fully understand the relationship between El Nino and global warming. That is why, today, I am asking NOAA, FEMA and other appropriate agencies to undertake a more detailed review of this winter's El Nino, as well as its impacts and costs, so we have a firmer understanding of how our climate system is changing, and what that means for us.

There are certain things we know right now. We know that we are affecting the Earth's climate, and that we must act now or face grave consequences.

This winter's El Nino gives us a taste of the extreme, erratic weather our children and grandchildren can expect more of unless we reverse the trend of global warming. It is a window on the future -- a future that could include more flood, drought, disease, and forest fires -- if we don't act today.

I believe that if we heed the signs of climate change, we can guard against that kind of future. President Clinton and I have created a climate change plan to do just that -- by tapping our ingenuity, our technological prowess, and our entrepreneurial spirit. If we do this the right way, we can meet the challenge of global warming without economic cooling.

In fact, we can turn this challenge into new economic opportunity -- creating new jobs for Americans and leading the world in the emerging $400 billion market for technology to clean up our environment.

We are starting already, forging partnerships with the auto industry, the building industry and others to dramatically improve energy efficiency and reduce greenhouse gas emissions. Together, we are creating the "solution industries" of tomorrow. As an investment in these "solution industries," we are proposing $6.3 billion in tax and research incentives to spur the development and use of energy-efficient products and clean energy technologies.

For instance, consumers who buy super-efficient cars, homes or appliances would receive tax credits -- they'd save energy, and save money.

Regrettably, some in Congress want to pretend that climate change is not real. Not only are they blocking our common-sense plan, they are trying to eliminate vital programs already in place. Just last week, the Senate Energy and Water Appropriations Subcommittee voted to cut funding for solar and other renewable energy programs.

These actions are short-sighted, and it is future generations that will pay the price.

Every month this year has delivered new evidence of global warming, and El Nino has given us a picture of what the future may hold if we fail to act. It is time for Congress to wake up to the mounting evidence of climate change, and help us meet this challenge head on. The time to act is now -- and we owe it to America's families to rise to that challenge.

Before I conclude, I want to say a brief word about the initiative known as the "e-rate" -- our effort to give schools and libraries greatly discounted Internet connections, so all our children can seize the full promise of the Information Age.

Every child in America deserves a 21st Century education, and access to 21st Century technology.

The e-rate is critical to our effort to put computers in every classroom and library -- giving every child the tools to succeed. But some in industry and in the Congress would undermine this program, and hold our children back. That's the wrong approach for America's future.

Let me be clear: I strongly oppose any effort to pull the plug on the e-rate, and deny our children the full promise of the Information Age. I call on both Congress and industry to put all politics aside, and work with us to put 21st Century educational technology in every classroom and library. Cutting off the e-rate would close the door to our children's future. That is something America simply cannot afford to do. Thank you.

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11

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THE WHITE HOUSE

Office of the Vice President

For Immediate Release
Monday, June 8, 1998

Contact:
(202) 456-7035

VICE PRESIDENT GORE ANNOUNCES RECORD GLOBAL TEMPERATURES IN THE FIRST FIVE MONTHS OF 1998

New Data Suggests That Global Warming May Be Making Effects of El Nino Even Worse

Washington, DC -- Vice President Gore today announced new data showing record global temperatures in the first five months of 1998, and a new analysis by federal scientists suggesting that global warming may be making the effects of El Nino even worse.

The Vice President released a report by the Commerce Department's National Oceanic and Atmospheric Administration (NOAA) showing that average global temperatures for January through May far exceed previous records for those months. The report also shows that over the past century, El Ninos have become more frequent and progressively warmer.

"This century is the warmest in 600 years, 1997 was the warmest year on record, and we've set new temperature records every month since January," Vice President Gore said in remarks at the White House. "This report is a reminder once again that global warming is real, and that unless we act, we can expect more extreme weather in the years ahead."

The Vice President called on Congress to approve the Administration's Climate Change Technology Initiative, which would reduce greenhouse gas emissions by providing $6.3 billion over five years for tax and research incentives to spur the development and use of energy-efficient products and clean energy technologies. The package includes tax credits for consumers who buy super-efficient cars, homes and appliances.

"Regrettably, there are those in Congress who'd rather pretend that climate change is not real," the Vice President said. "It's time for Congress to wake up to the mounting evidence and help us meet this challenge head on. The time to act is now."

The NOAA analysis examined the 10 strongest El Nino events of this century and found that they have become more frequent and warmer. During El Nino, a naturally occurring phenomenon, rising ocean temperatures in the Southern Pacific Ocean set off climatic shifts that can produce extreme heat and extreme precipitation in different regions of the world. Although it is not clear that the increasing frequency and warmth of El Ninos is a direct result of global warming, the analysis suggests that the effects of El Nino are compounded by rising global temperatures.

For the first five months of 1998, new temperature records were set in five states, and new precipitation records in 13. Temperature or precipitation, and in some cases both, were far above normal in 32 states. Tornadoes have killed 122 people this year, matching the annual record set in 1984. Elsewhere around the world, unusually warm ocean temperatures have severely damaged fragile coral reefs from the Florida Keys to Australia, and prolonged drought have contributed to thousands of wildfires in Malaysia, Brazil and Mexico.

"This El Nino gives us a taste of the extreme, erratic weather our children and grandchildren can expect more of unless we reverse the trend of global warming," the Vice President said.

The Vice President directed NOAA and the Federal Emergency Management Agency to work with other agencies in preparing a detailed review of the 1987-88 El Nino, its impacts and its costs. He also announced a new National Aeronautics and Space Administration web site (http://modarch.gsfc.nasa.gov/fire_atlas/fires.html) tracking major forest fires around the world with state-of-the-art satellite imagery.

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Divider Title: _____

SOLAR ENERGY: MEETING THE CHALLENGE OF GLOBAL WARMING

June 25, 1998

One year after President Clinton launched the Million Solar Roofs Initiative -- with a goal of placing solar energy systems on 1 million U.S. roofs by 2010 -- a new private-sector partnership will provide homeowners with low-cost loans to help meet that goal. The Administration is calling on Congress to help encourage other voluntary efforts to meet the challenge of global warming by approving the President's proposed tax and research incentives for energy efficiency, solar energy and other clean energy sources.

Million Solar Roofs. In June 1997, President Clinton set a goal of placing solar energy systems on 1 million roofs across the country by 2010. Just a year later, the Department of Energy already has received commitments for over half a million solar roofs. Today, spurred by the President's initiative, the General Motors Acceptance Corporation and the Solar Energy Industries Association are announcing a new partnership to provide long-term, low-cost financing for solar energy systems. This breakthrough removes a significant barrier to the installation of solar energy systems in new and existing homes. Meeting the goal of 1 million solar roofs will help:

- Reduce carbon emissions equivalent to the annual emissions from 850,000 cars;
- Create approximately 70,000 high-tech jobs; and
- Increase domestic production of solar technologies, helping reduce production prices and keeping the U.S. solar energy industry competitive in the $1.5 billion solar global market.

Meeting the Challenge of Climate Change. Global climate change is one of our greatest environmental challenges. The world's leading scientists tell us the problem is real and the threats it poses -- such as increasingly frequent and severe storms and droughts, potential increases in respiratory and infectious diseases and rising sea levels -- are too serious to ignore.

In October 1997, President Clinton outlined an environmentally and economically sound plan for reducing U.S. greenhouse gas emissions. One element of the President's plan is a vigorous program of tax cuts and research and development aimed at improving energy efficiency and spurring the use of renewable energy sources, including solar. The package amounts to $6.3 billion over 5 years -- $3.6 billion in tax cuts and $2.7 billion in new investment.

- The **tax incentive package** includes a 15% tax credit (with a $2,000 limit) for rooftop solar equipment and tax credits for consumers who purchase highly efficient vehicles, new homes or energy-efficient building equipment for homes and offices. In addition, the package includes a credit for investments in combined heat and power systems and extends a current tax credit for the production of electricity from wind and biomass.

- The **investment package** includes research and development spending in the major carbon-emitting sectors of the economy -- buildings, transportation, and industry. Among projects to be expanded is the Partnership for a New Generation of Vehicles, a government-industry effort to develop highly-efficient cars, and the Partnership for Advancing Technologies in Housing. Substantial funds will also be invested in research partnerships for key renewable energy technologies.

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THE WHITE HOUSE

Office of the Press Secretary
(Xian, People's Republic of China)

For Immediate Release **June 25, 1998**

STATEMENT BY THE PRESIDENT

I would like to applaud the announcement today of a new partnership to help meet the challenge of global warming by making it easier for homeowners to tap clean energy from the sun.

Last June, I announced an initiative with the goal of placing solar energy panels on one million roofs around the nation by 2010. Just a year later, the Department of Energy already has received commitments for more than half a million installations. This new partnership between the General Motors Acceptance Corporation and the Solar Energy Industries Association will make low-cost loans for solar energy systems available nationwide, helping us to meet our goal even faster.

This agreement demonstrates that through partnerships and the power of the marketplace, we can reduce greenhouse gas pollution while saving consumers money and creating new economic opportunities. I encourage other businesses to seek creative ways to meet the challenge of climate change. And I urge Congress to help speed this effort by funding my proposals for a solar energy tax credit and other tax and research incentives for energy efficiency and clean power.

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THE WHITE HOUSE

Office of the Press Secretary

Embargoed For Release
Until 10:06 A.M. EDT
Saturday, July 25, 1998

RADIO ADDRESS BY THE PRESIDENT
TO THE NATION

THE PRESIDENT: Good morning. This year, we've seen a disturbing string of weather-related emergencies all around our country, from flash floods in Tennessee to wildfires in Florida to ice storms last winter in New England. This summer, record heat and drought are taking a terrible human toll, destroying crops, causing power outages, worst of all, taking lives. Just since June, more than 130 people have died because of the heat.

Certainly, the latest El Nino is partly to blame for the severe weather conditions that have besieged so many communities. But growing evidence suggests that the extreme and erratic weather we're seeing in America and around the world is being intensified by global warming.

Consider this: 1997 was the warmest year on record, and 1998 is on track to break that record. Five of the hottest years in history -- the five hottest years have all occurred in the 1990s. Scientists predict that July may be the hottest month since mankind began recording temperatures. The world's leading climate experts predict even more extreme weather unless we reverse this dangerous warming trend.

We're doing everything we can in the short-term to help communities cope with this devastating heat wave. This week, I released $100 million in emergency funds to the 11 hottest states. On Monday, Agriculture Secretary Glickman and FEMA Director James Lee Witt will travel to Texas and Oklahoma to see what more we can do to help there. Today, I'm pleased to announce that the Department of Energy will begin providing new crisis assistance to low-income families, repairing and replacing air-conditioners and fans, installing insulation, and giving advice on the best way to keep homes cool in this extreme heat.

But to meet the long-term challenge of global warming, we must do more. Vice President Gore and I have launched a comprehensive, cost-effective strategy to protect our environment, while creating new opportunities for economic growth. I've proposed $6.3 billion in research and tax incentives over the next five years to encourage the private sector to work with us to improve our energy efficiency, generate clean power, and reduce the greenhouse gases that contribute so much to global warming.

We must all do our part to protect the environment, and as the nation's largest energy consumer, the federal government must lead. At my direction, we're undertaking a multipart initiative to put our own house in order. Today, I'm pleased to announce the first four parts of this plan, aimed at increasing the efficiency of federal buildings.

First, I'm directing federal agencies to work more closely with private contractors to retrofit federal buildings and other facilities with the best energy-saving technology, at no cost to taxpayers. Second, we'll replace hundreds of thousands of conventional light bulbs and fixtures with more efficient

fluorescents, which will pay back in energy savings nearly five times what they cost to install. Third, I'm directing all agencies to work toward bringing their existing buildings up to EPA's "Energy Star" standard of energy efficiency. And fourth, the Defense Department and six other federal agencies will adopt "sustainable design" guidelines for all new federal buildings to reduce their energy use.

Now, together these measures will save taxpayers as much as $1 billion a year in energy costs. They'll help to jump-start markets for new technologies, and they'll protect our environment by reducing greenhouse gas emissions.

We are facing squarely the problem of global warming -- but there are still some in Congress who would rather pretend it doesn't exist. Despite mounting evidence, they would deny the science and ignore the warning signs. Rather than invest in a common-sense strategy to reduce greenhouse gas emissions, they want to cut programs for energy efficiency and renewable energy -- programs that long have enjoyed bipartisan support.

Worst of all, some have even tried to keep the public from learning the facts about global warming by barring federal agencies from even talking about the issue. Thankfully, this gag order was defeated in the House of Representatives just this week. Global warming is real; the risks it poses are real; and the American people have a right to know it and a responsibility to do something about it. The sooner Congress understands that, the sooner we can protect our nation -- and our planet -- from increased flood, fire, drought, and deadly heat waves.

To protect our environment, we must put progress ahead of partisanship. For nearly 30 years now, we've had a bipartisan commitment to preserving the environment. We have to bring it to this new challenge.

As sweltering as this summer has been, if we don't act now, our children may look back on the summer of 1998 as one that was relatively mild and cool. There's no excuse for delay. We have the tools, we have the ingenuity to head off this threat. We have the opportunity and the deepest of obligations to leave our children and our grandchildren a healthy, thriving planet -- God's great gift to us all.

Thanks for listening.

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THE WHITE HOUSE

Office of the Press Secretary

EMBARGOED UNTIL
July 25, 1998
10:06 AM

FACT SHEET

Meeting the Challenge of Global Climate Change
Increasing Energy Efficiency & Reducing Energy Use in Federal Buildings
July 25, 1998

In his radio address to the nation, President Clinton today cited new evidence of record-breaking heat, and called on Congress to take responsible action to meet the challenge of climate change by funding common sense energy efficiency and renewable energy programs that will allow us to continue to grow the economy while protecting the environment.

The President also took further action by announcing four new steps to decrease energy use in Federal buildings and facilities, thereby reducing greenhouse gas emissions and saving taxpayer dollars.

Directing Cabinet agencies to work more closely with private contractors to retrofit Federal buildings and other facilities with the best energy saving technology, saving as much as $700 million in energy costs per year and reducing as much as 2 million metric tons of carbon annually, at little or no cost to taxpayers;

Replacing 300,000 light bulbs with energy efficient flourescents over the next three years, saving taxpayers $13.5 million in energy costs and reducing as much as 40,000 metric tons of carbon emissions;

Directing agencies to bring existing Federal buildings up to the EPA ENERGY STAR efficiency standard, and;

Announcing that the Department of Defense and six other Federal agencies will adopt "sustainable design" guidelines for construction of new Federal buildings.

If fully carried out, these energy-saving, cost-cutting efforts can save taxpayers as much as $1 billion per year and

reduce over 3 million metric tons of carbon annually for the next 15 years.

President Clinton's Four Steps to Improve the Energy-Efficiency of Federal Buildings

The Federal government is the nation's largest energy consumer with an annual energy bill of $8 billion. Significantly reducing Federal energy expenditures saves tax payer dollars, cuts emissions that contribute to global warming, and helps create markets for energy efficient and renewable technologies. Today, President Clinton announced four new steps to have the Federal agencies lead in energy efficiency.

1. Expand Use of Energy Savings Performance Contracts

Energy Savings Performance Contracts (ESPCs) leverage private sector investment and expertise to accomplish energy and cost saving projects in Federal facilities at little or no cost to taxpayers. Under ESPC authority, Federal agencies hire contractors to audit facilities, propose energy saving retrofits, and privately finance, install and maintain retrofits. Contractors are paid from a share of the savings; remaining savings return to taxpayers and the agency.

The President directed all Cabinet agencies to expand the use of ESPCs, and to step up efforts to reduce Federal energy use to 30% below 1985 levels by 2005. ESPCs can save as much as $700 million per year, and cut over 2 million metric tons of carbon emissions. The President will seek Congressional approval to renew and expand ESPC authority beyond the year 2000.

The Department of Energy today announced $1.5 billion in new ESPC contract authority, bringing to $5 billion the total amount of ESPC authority currently available.

2. Federal Lighting Purchasing and Retrofit Campaign

Today, the President launched an effort to purchase and install an additional 100,000 compact fluorescent bulbs for each of the next three years, which will generate electricity cost savings of $13.5 million, and cut about 40,000 metric tons of carbon emissions over the life of the bulbs. Also, ESPCs can be used to save an additional $10 million dollars a year for three years in energy costs by upgrading old-style institutional lighting fixtures. This will prevent up to 600,000 metric tons of carbon emissions over the life of the fixtures.

3. Federal ENERGY STAR Buildings

The ENERGY STAR Building Label is offered to the top 25% of energy efficient buildings. Today, the President directed all agencies to take the steps needed to bring existing Federal buildings up to ENERGY STAR standards, including through use of ESPCs, utility programs and other agency funded efforts. Increasing energy efficiency will save money in energy bills and reduce the emissions that contribute to global warming.

4. Sustainable Design in New Federal Buildings

The Department of Defense and six other Federal agencies will adopt "sustainable design" in all new buildings. The Defense Department, for example, has committed to build facilities that use as much as 50% less energy than similar buildings. "Sustainable design" includes: using the most efficient practices, products and services; utilizing recycled materials; and siting buildings near public transportation. This magnitude of reduction in a typical medium-sized office building would save $70,000 a year and reduce emissions by over 90 metric tons of carbon per year.

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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 low-cost reductions both at home and abroad; and that the benefits of averting climate change 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, 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 <u>not</u> 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, the 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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United States Department of State

Washington, D.C. 20520

SEP 15 1998

Dear Mr. Chairman:

In response to your letter of September 9 to Under Secretary Eizenstat, attached are extensive answers to your remaining questions concerning the Administration's climate change policies. We wish to work with Congress, in a bipartisan fashion, to ensure that the threat of climate change is addressed globally, and in a manner that is cost-effective, innovative, prudent and flexible.

We hope that the attached materials will allow the Senate without further delay to confirm Frank Loy as Under Secretary for Global Affairs. The Secretary of State believes that she needs Mr. Loy now as Under Secretary to help her manage our international law enforcement, refugee, human rights and environmental diplomacy, as well as to facilitate discussions with Congress on climate change and other important issues.

We trust that this explanation satisfies your desire for more information from us on this matter. Please contact me directly as soon as possible should you require further assistance.

Sincerely,

Barbara Larkin

Barbara Larkin
Assistant Secretary
Legislative Affairs

The Honorable
Chuck Hagel, Chairman,
Subcommittee on International Economic Policy,
Export and Trade Promotion,
Committee on Foreign Relations,
United States Senate.

"Meaningful Participation" by Developing Countries

As Under Secretary Eizenstat explained in his briefing on this subject, the State Department has neither a formal definition of "meaningful participation" by developing countries in global climate change efforts, nor an agreed upon list of "key developing countries." In light of your desire to understand our application of these concepts more clearly, we have outlined below illustrative criteria for determining which nations are "key developing countries" and what we mean by "meaningful participation."

Key developing countries. Although we have not drawn up a firm list of "key developing countries," among the principal factors in determining whether a country is "key" are net emissions of greenhouse gases, per capita income and relative diplomatic influence. In light of these criteria, as Under Secretary Eizenstat conveyed to you in his oral briefing, some examples might include Argentina. Brazil, China, Chile, India, Mexico, South Korea and Turkey.

Meaningful participation. In evaluating what constitutes meaningful participation, one must be mindful of the substantial differences among developing countries in 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 that constitutes meaningful participation, but the phrase is intended to convey that key developing countries must commit to serious steps to limit their greenhouse gas emissions and help the world to start on the road to controlling global warming. This could be effectively accomplished through developing countries' taking on their own emissions targets, consistent with strong 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.

In our approach to developing countries, we have tended to group them into several categories. One category is formed grouping together relatively high-income developing and newly industrialized countries. Among these are the two non-Annex I OECD members, South Korea and Mexico, which are also relatively high emitters. We have not only pressed hard bilaterally for their participation, but have achieved the backing of other OECD countries to urge these countries to take on binding growth targets that would limit the rate of increase to their emissions. There are also relatively low emitters in this category, such as Israel and Singapore.

Secondly, there are large emitters with low per capita incomes, like China and India. Neither of these countries to date has indicated a willingness to take on quantitative targets. We have engaged vigorously with them at the highest levels and will continue to do so. Moreover, we have urged others to do the same. We now have in place a high-level dialogue with China, for example, through which we have stressed the potential impacts of climate change on China, as well as the health, energy efficiency and

other benefits of early action. We had initiated a similar climate change dialogue with India prior to its nuclear tests and hope to resume discussions with India at an appropriate time.

There is another, mixed category of middle-income countries of varying sizes and emission levels. We see particular opportunities in Latin America and the Caribbean, such as Argentina and Central America. Argentina, as chair of the COP-4 meeting is an important leader in this process. Brazil also is clearly important to solving the problem. While Brazil has yet to consider binding targets, it introduced the Clean Development Mechanism at Kyoto and has been a leader on renewable energy and alternative fuel strategies in the region. We are working with Annex I countries and partners in Latin America in particular to create a stronger understanding that taking action on climate change, including through the Clean Development Mechanism, is fully consistent with growth and development. We have had setbacks in our progress with other middle income countries in Asia due to recent economic events, but we continue to work with them bilaterally and multilaterally.

Finally, there is a sizable category of poor countries with low emissions per capita income that we do not see as key developing countries. For them, although climate change often poses serious potential threats, they have limited capacity to undertake the kinds of actions and commitments that we expect of countries with more advanced economies. These include, for example, most of Sub-Saharan Africa and least developed countries elsewhere, such as Bangladesh. We are working with these countries to build their capacity to participate in solving the global problem of climate change. Moreover, the small island states, which are uniquely vulnerable to climate change, also offer opportunities for cooperative activities.

Beyond these working guidelines, our policies continue to evolve based on active discussions bilaterally and multilaterally with our partners in developed and developing countries, as well as consultations with the Congress. We expect that it will take time to develop a critical mass of developing countries engaged in meaningful participation.

Economic Analysis of the Kyoto Protocol

Regarding economic analysis of the Kyoto Protocol in general, you may recall that the Department of State has made available to you and your staff, in the interest of openness and cooperation, all the information and documents in our possession that pertain to the Administration's economic analysis. In addition to the documents provided to you earlier, many as yet to be reviewed documents remain available for your staff to examine at the Department at their convenience, as we have indicated several times previously.

As Under Secretary Eizenstat discussed with you, most of the Administration's economic documentation was prepared by and remains with the economic agencies. Naturally, the Department has been unable to provide you with information concerning documents that are not in its possession. As Under Secretary Eizenstat has indicated to you previously, CEA would be happy to brief you on its recently released economic analysis, which we provided to you on the day of its release. Furthermore, Under Secretary Eizenstat contacted CEA on your behalf in August and they agreed to make available to you the economic documents that they provided earlier to Senator Enzi. As we indicated in previous correspondence and conversations with your staff, we suggested to your staff that you submit a brief written request to CEA. As such a request was not forthcoming, we contacted CEA again last week on your behalf. In a departure from their ordinary practice, CEA has agreed to make available to you without your written request the Enzi documents, as well as a group of additional technical documents they are now gathering related to the economic analysis underlying some elements of our Kyoto negotiating positions. We have urged that they do this in this instance based on the specificity of your recent written request to us, the link you see between the technical economic information and our diplomatic activities, and your important role as Subcommittee Chair of our oversight committee. We have asked, furthermore, that CEA respond directly to you regarding your September 9 request for additional technical information on the contents of the economic analysis that was the basis for our approach at Kyoto. We understand they intend to do so early this week.

Regarding your question on economic analysis available to Under Secretary Eizenstat during the Kyoto negotiations, as we have explained previously, the only documents of the type to which you refer available to the Under Secretary at that time were the two charts already reviewed by your staff. These charts summarized the key parameters flowing from a review of emissions data and cost curves used by the Administration. They were prepared using the best available data on greenhouse gas emissions and the Battelle Second Generation Model, as well as related outside research. Attached are two publicly available articles on the Second Generation Model, which we have obtained on your behalf.

As we have explained before, Jonathan Gruber formerly of the Treasury Department, in close consultation with economic agencies in Washington and others on the Kyoto team, was able to analyze with these charts the economic implications for the

United States of different negotiating positions that arose in Kyoto. For instance, he was able to analyze quickly the economic implications of various forms of the flexibility mechanisms we sought to obtain in Kyoto, in addition to emissions targets that were considered to be potentially acceptable. The charts played an important role for us in Kyoto, in that they were designed precisely to allow the kind of quick but effective assessments of rapidly changing positions needed to conduct time-sensitive negotiations. They reflect the careful preparation of the Administration's economic team that allowed us to achieve our goals in Kyoto.

With regard to Under Secretary Eizenstat's reference to Mr. Gruber's "handy computer" in his February 11th testimony, this phrase did not refer to the use of a computer-based economic model in Kyoto. Neither Mr. Gruber nor other members of the team in Kyoto ran a computer-based economic model during the negotiations. Mr. Gruber did use the computer facility in our operations center in Kyoto to review emissions data pertaining to our negotiations. No economic model runs were conducted there, but some basic calculations were performed, as the records we have made available to you demonstrate. During the negotiations, Mr. Gruber used the emissions data along with information provided by the economic agencies in Washington to assess various proposals. We have already made available to you all of the documents in our possession that relate to these assessments and, as mentioned above, CEA is now prepared to share with you documents they sent to the delegation in Kyoto. The phrase "handy computer" was, and remains, accurate, though we regret it was misinterpreted to imply that economic model runs were conducted on the spot in Kyoto.

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EMISSIONS TRADING: SOLVING THE GLOBAL ENVIRONMENTAL PROBLEM OF CLIMATE CHANGE COST-EFFECTIVELY

(Remarks by U.S. Under Secretary of State Stuart E. Eizenstat at the Tokyo Climate Change Ministerial, September 17, 1998)

The United States strongly supported the inclusion of emissions trading and other flexible market mechanisms, like Joint Implementation with credits -- JI -- and the Clean Development Mechanism -- CDM -- in the Kyoto Protocol. We did so in the firm belief that they are key to achieving a global solution to the serious problem of global warming in a manner that is environmentally effective while not imposing an undue economic burden on our people or our industries, or those of other countries.

It has never been more clear than it is today, at a time of financial stress around the globe, that we need to be smart and innovative to address climate change in ways that promote clean growth and protect economic prospects. I am convinced that we can make the emissions trading system, as well as JI and CDM, work beyond expectations and help lay the foundation for new paths to clean growth and sustainable development.

Let's remember why we worked so hard at Kyoto to include emissions trading. Emissions trading is good for the environment. Our goal in this enterprise is to stabilize atmospheric concentrations of greenhouse gases at a safe level. A ton of carbon emissions reduced provides the same global benefit wherever it occurs. Emissions trading has the potential to mobilize the private sector to help make these reductions worldwide, and become the thereby

become the Protocol's most powerful engine for meeting our Kyoto targets.

The United States' experience with emissions trading in our acid rain program has shown trading to be much less expensive - up to 50 percent - and far more effective in achieving reductions than had been originally expected. We have met our objectives at a fraction of the cost. We have developed innovative ways to give our trading system the integrity it needed to achieve these remarkable results, including through strong monitoring requirements. We also learned that setting up an effective trading system requires a strong domestic commitment, and involves action and responsibility on the part of both buyers and sellers. There is no free lunch, but the benefits are tremendous.

Global trading without quantitative limitations is the most cost-effective, and environmentally sound, international means to achieve the significant emissions targets agreed to in Kyoto, and to support further action in the future. Some have argued for limits on trading and other flexible mechanisms. To us, this seems counterproductive for several reasons.

Limits on the flexible mechanisms, would deny all nations access to worldwide options for cost-effective emissions reductions, and add to compliance and monitoring costs. These lost resources would be better spent on reductions themselves. Moreover, higher costs and greater compliance penalties would discourage developing country participation and reduce the investments in clean technologies needed to spur their sustainable growth.

MOVED TO P. 4

Trading creates incentives to tap enormous opportunities worldwide for increased energy efficiency and conservation, and promotes investments in clean technology as countries grow or capital stock turns over. A well-designed emissions trading system will allow countries that take on binding commitments to take advantage of the fact that the economic cost of emissions reductions varies tremendously from country to country. For developing countries, participation in trading, even more than CDM, would greatly expand their access to these opportunities. Early action is especially critical to limiting the growth in developing country greenhouse gas emissions.

Emissions trading will deliver similar benefits on a larger scale than developing countries can obtain through the CDM, or that developed countries can access through JI. If a nation adopts a target and timetable, that nation then has a powerful incentive to generate a surplus of emission reductions and become an exporter of reductions in the international marketplace if its abatement costs are relatively low. Allowing developing countries the option to adopt a target and timetable lets them take advantage of these substantial market benefits.

Emissions trading has an unparalleled ability to ensure that cost-effective emissions reductions are taken in developed as well as developing countries. If there are "cheap and easy" reductions that could be made through domestic action in the U.S., for example, trading gives firms worldwide a clear spur to find and make them.

Our representatives have already discussed in various fora the importance of making progress in the areas of reporting, monitoring, verification and compliance as we

approach Buenos Aires. They have also recognized their importance in bringing integrity to the emissions trading system, and the other flexible mechanisms. At the same time, we must avoid bureaucratizing the mechanisms to such a degree that we sharply limit their effectiveness. I believe that if we work together to build upon our common ground, emissions trading, as well as JI and the CDM, can achieve their potential for reducing greenhouse gas emissions cost-effectively.

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Make no mistake, the United States shares with others a commitment to strong action both at home and internationally to address climate change. We cannot achieve our Kyoto goals without strong domestic action. President Clinton has proposed a $6.3 billion package of tax incentives and R&D measures to promote domestic efforts, and the Administration is working with industry groups on sound, voluntary efforts. The U.S. government will set an example of how to reduce greenhouse gas emissions through programs to improve energy efficiency within government operations and cut our $8 billion annual energy bill. Moreover, our domestic electricity restructuring plan is likely to further reduce carbon emissions. Like many of you, we also have a wide range of nationwide programs that have been in place for years.

Yet, to ensure the success of our efforts, we will need to generate new momentum in Buenos Aires based upon clear progress. We must do this to protect current and future generations everywhere from the damaging effects of climate change. To do so, our work will need to include making real progress on a global, unrestricted emissions trading system. I look forward to our cooperation on the most important worldwide environmental problem of the 21st century.

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THE KYOTO PROTOCOL: THE OUTLOOK FOR BUENOS AIRES AND BEYOND

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND POWER

OF THE

COMMITTEE ON COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

OCTOBER 6, 1998

Serial No. 105–140

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other nations to support our positions on the flexibility mechanisms and securing meaningful participation.

Under Secretary of State Stuart Eizenstat led our delegation to an informal Ministerial on Climate Change held in Tokyo, September 17 and 18. Among the approximately 20 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 issues critical to COP-4, especially emissions trading.

One week later, I led the U.S. delegation to a ministerial on the Clean Development Mechanism, co-hosted by Canada, Brazil, and Argentina. The meeting sought to inform ministers and other high-level officials on technical issues of the Clean Development Mechanism and its potential to facilitate the transfer of technology and investment opportunities in developing countries.

These meetings, and many others, have provided a number of occasions to have bilateral discussions with many countries.

Within the last month, I have traveled to China, Korea, Japan, and Canada on the climate change agenda. I have also traveled to Europe and will be traveling to Europe at the end of this month.

In early September, I led an interagency delegation to China as part of the fulfillment of the agreement at the Summit to open a high-level dialog on climate change. We had productive discussions with a number of ministries identifying areas of cooperation between our countries. We have continued to build on these discussions with the recent visit of the Chinese Environment Minister.

We also went to Korea and discussed the same idea of how to advance full acceptance of the flexibility mechanisms and explored technical bilateral cooperation in a number of climate-related areas.

I want to assure you that we are continuing our ongoing dialog across a range of countries to explore how meaningful participation can be achieved, and I look forward to your questions and a discussion of this issue.

Thank you.

[The prepared statement of Melinda L. Kimble follows:]

PREPARED STATEMENT OF MELINDA L. KIMBLE, ACTING ASSISTANT SECRETARY OF STATE FOR OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, DEPARTMENT OF STATE

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 con-

straints, 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 groundbreaking 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 prac-

tices 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 under-

stand 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.

Mr. BURR. Thank you, Ms. Kimble.

One of the reasons that I think all members patiently waited through your testimony was the fact that we didn't get it until 6:45 last night and haven't had as much time to prepare as we'd like to.

Let me ask unanimous consent that all members be given the opportunity to include opening statements. Without objection, so ordered.

[Additional statement submitted for the record follows:]

PREPARED STATEMENT OF HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS

Thank you, Mr. Chairman, and I commend you for calling today's hearing to examine the expectations for the upcoming international meeting in Buenos Aires next month and the economic consequences of the Kyoto Protocol.

Three years ago, the worldwide community passed a milestone with regard to global warming. The United Nations Intergovernmental Panel on Climate Change issued a report drawing on the contributions of nearly 2500 scientists from around the world. The report concluded "that the balance of evidence suggests there is a discernible human influence on global climate." This remarkable statement reflects an unprecedented degree of consensus in the scientific community, and it sends a clear signal to policy makers that this environmental issue must be addressed by policy makers around the world. Despite some remaining scientific uncertainties regarding the impacts of global warming, the clear consensus of the scientific community is that the public health and environmental risks of not acting at this time are too great. The question then is what should we do?

President Clinton and Vice President Gore have shown great leadership in developing a national policy on this complex issue that emphasizes the need to act in accordance with both the best scientific information available and on an understanding of the economic impacts of any actions we may take. They have undertaken a careful economic analysis of implementing the Kyoto protocol, which we will be examining here today. We will also be hearing from some industry economists who disagree with this analysis, and I look forward to hearing their testimony. I wish that we had also had an opportunity to hear testimony from economists associated with the environmental or public interest community, but I see that no such witnesses will be appearing today. That's unfortunate.

As we examine the economic impacts of reducing greenhouse gases, it is my own view that technological innovation will play an important role in meeting the emissions reductions targets established by the Kyoto Accord. Improved energy efficiency, technological advances in electricity generation, transmission and distribution, increased reliance on renewable energy sources, and innovations in automobile technologies can and will have a profound effect on our national efforts to curb greenhouse gas emissions. I firmly believe that we have not yet reached our technological limits with respect to any of these technologies. However, to make innovation happen, and to spur the flow of capital to the entrepreneurs who are developing new technologies in this area, Congress must send a clear signal to industry and to consumers that we are committed to moving forward and reducing greenhouse gas emissions. This commitment, once translated into binding implementation legislation, will create the marketplace incentives for new technologies to be introduced that will greatly reduce compliance costs.

In addition to highlighting the need for improved technology, energy efficiency, and use of renewable energy, I believe it is important that we also have a discussion today about the effect of increasing competition in the domestic electric utility markets on reducing emissions of greenhouse gases. Moving from the current world of electric utility monopolies towards a competitive environment in which consumers can choose suppliers has the potential to greatly enhance the economic efficiency of this critical industry. Those of my colleagues who have concerns about the economic burdens of Kyoto should be thinking of how to hasten, rather than delay, the advent of retail electricity competition. Just as the break up of Ma Bell in 1982 spurred the modern telecommunications era, so too the break up of the existing electric utility monopolies has the potential to drive a wide range of technological and marketplace changes that will make achieving Kyoto emissions targets much easier.

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THE WHITE HOUSE

Office of the Vice President

For Immediate Release:
Tuesday, October 27, 1998

Contact:
(202) 456-7035

VICE PRESIDENT LAUDS GROWING CONSENSUS ON STEPS TO FIGHT GLOBAL WARMING,

Also Receives Recommendations of President's Council on Sustainable Development

WASHINGTON, D.C. - Vice President Gore lauded today the growing consensus on steps to address climate change, and he received recommendations from the President's Council on Sustainable Development on ways to encourage early, voluntary action to reduce greenhouse gas emissions.

In remarks at the White House, the Vice President applauded recent pledges by leading corporations, some in collaboration with environmental organizations, to take action to reduce their emissions. In particular, he noted today's announcement by Monsanto, British Petroleum, General Motors, and the World Resources Institute, and yesterday's pledge by IBM.

"While many in Congress still want to ignore the mounting evidence of global warming, many in the business community are paying heed," the Vice President said. "They recognize the challenges we face -- and the opportunities we can seize. They are accepting responsibility as good corporate citizens, and they are forging common-sense plans to reduce their emissions."

The Vice President also commended the recommendations of the President's Council on Sustainable Development as an important step toward developing concrete measures to encourage companies to take voluntary steps to curb emissions before binding requirements are in place.

The Council, which brings together business, environmental, civic, and government leaders from across the country, presented a statement of principles that could serve as the basis for legislation that ensures that companies taking early, voluntary action receive credit toward future emissions targets.

The Vice President said climate change efforts will also benefit from a significant boost in clean energy research funding that the Administration secured in this year's budget. Specifically, the 1999 budget contains over $1 billion for research on energy efficiency and renewable energy technologies, a 25 percent increase.

"These developments send a strong message: A healthy environment and a healthy economy go hand in hand," the Vice President said. "Through technology and innovation, we can turn this challenge into a huge opportunity for businesses and for America. And the sooner we act, the easier it will be."

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President's Council on Sustainable Development
Climate Task Force
Principles for Early Action
October 27, 1998

In November 1997, PCSD's Climate Task Force released a set of Climate Change Principles that stated, "the risk of climate change . . . is of sufficient concern that timely and effective actions should be taken" and "policies to reduce emissions of greenhouse gases or other measures to protect the climate should include incentives for early action."

The term "early action" refers to a suite of voluntary steps that could be taken before any domestic or international binding requirements are in place. Voluntary efforts by businesses and consumers to protect the climate could be facilitated by a systematic legislative approach to stimulate early action. The following principles should be considered in designing a flexible program that broadly encourages measures to protect the climate. Members of the Task Force envision that the award of formal credit is but one part of the whole early action program. In addition, members believe that an early action strategy must evolve over time in response to advances in scientific knowledge and technology. These principles do not presume a decision as to whether the United States should become a party to the Kyoto Protocol. The potential benefits of early action justify the program on its own merits.

1. ***Appropriate incentives for early action to protect the climate***

An early action strategy should aim to reduce greenhouse gas emissions. Any program should ensure that those that take or have taken voluntary steps to protect the climate are rewarded and not inadvertently penalized for their efforts. Market-based incentives, fiscal policies, federal funding, procurement policies, regulations, and public recognition should be combined into a coherent effort that effectively stimulates early action.

2. ***Broadly-based participation***

Incentives for early action should encourage activities that protect the climate with the broadest possible level of participation by business, communities, government agencies, academia, non-governmental organizations, and individuals. These incentives should facilitate the formation of partnerships and the leveraging of resources among participants.

3. ***Learning, innovation, flexibility, and experimentation***

The program should accommodate economic growth while contributing to the achievement of significant emissions reductions by encouraging flexibility, innovation, and experimentation to facilitate learning about cost-effective ways to protect the climate. Policy should allow a broad menu of options that can also result in environmental and societal benefits for all segments of the population.

4. ***Formal credit for greenhouse gas emissions reduction efforts***

As part of the overall early action strategy, formal credit should be granted to early actors for legitimate and verifiable measures that reduce overall greenhouse gas emissions relative to defined benchmarks. Those undertaking these efforts should receive assurances that earned credits can be applied towards future reduction obligations. The program ultimately needs to be codified to provide certainty to these actors. Formal credit for domestic actions should be issued with the understanding that these credits are allocated from any future limit on U.S. emissions.

5. ***Accountability for emissions***

Dependable measurement techniques and credible reporting methods should be used to account for claimed emissions reductions. Policies to grant formal credit should aim to keep transaction costs and risks low while ensuring the integrity of awarded credits.

6. ***Compatibility with other climate protection strategies and environmental goals***

The design of an early action program should be compatible with other domestic or international strategies to protect the climate and with other environmental goals.

7. ***Government leadership***

Governments should demonstrate leadership in an early action program by achieving significant greenhouse gas emissions reductions from their activities, relative to their defined benchmarks.

Climate Task Force Membership

John Adams
Natural Resources Defense Council

The Honorable Aida Alvarez
U.S. Small Business Administration

Ray C. Anderson
Council Co-Chair
Interface, Inc.

The Honorable D. James Baker
Task Force Co-Chair
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Richard Barth
Novartis, (retired)

The Honorable
Carol M. Browner
U.S. Environmental Protection Agency

Richard Clarke (retired)
Pacific Gas and Electric

Scott Bernstein
Center for Neighborhood Technology

David T. Buzzelli
The Dow Chemical Company

The Honorable Andrew Cuomo
U.S. Department of Housing and Urban Development

The Honorable
William M. Daley
U.S. Department of Commerce

Dianne Dillon-Ridgley
Women's Environment and Development Organization

E. Linn Draper, Jr.
America Electric Power

Judith Espinosa
Alliance for Transportation Research

The Honorable Randall Franke
Marion County, OR

The Honorable Dan Glickman
U.S. Department of Agriculture

The Honorable
Sherry Goodman
U.S. Department of Defense

Jay D. Hair
National Wildlife Federation

Samuel C. Johnson
SC Johnson Wax

Fred Krupp
Environmental Defense Fund

Jonathan Lash
Council Co-Chair
Task Force Co-Chair
World Resources Institute

Kenneth Lay
Enron Corporation

Harry J. Pearce
General Motors Corporation

Steve Percy
Task Force Co-Chair
BP America, Inc.

Michele Perrault
Sierra Club

The Honorable Bill Richardson
U.S. Department of Energy

The Honorable
Richard W. Riley
U.S. Department of Education

The Honorable
Richard E. Rominger
U.S. Department of Agriculture

The Honorable Susan Savage
City of Tulsa, Office of the Mayor

John C. Sawhill
The Nature Conservancy

The Honorable Rodney Slater
U.S. Department of Transportation

Theodore Strong
Columbia Inter-Tribal Fish Commission

PRESIDENT'S COUNCIL ON
SUSTAINABLE DEVELOPMENT
730 Jackson Place, NW Washington, D.C. 20503

October 27, 1998

The President
The White House
Washington, DC 20500

Dear Mr. President,

Your strong voice has called attention to the risks of human-induced climate change and the need to take timely and effective steps to address it. We are pleased to report further progress in our efforts to advise you on climate policy options that could help encourage these steps. In the statement on climate that we sent to you last November, we recognized -- as you have -- the need for early action to protect the climate and the importance of incentives to catalyze that action. Members of the Climate Task Force of the President's Council on Sustainable Development have reached agreement on a set of principles for the design of a program that we believe would broadly encourage voluntary action.

This consensus statement from a diverse group of Climate Task Force members -- including leaders from business, environmental and civic organizations, as well as local and federal government -- is based on the Task Force's examination of the key policy issues that must be considered in designing an early action program. In the course of our work, we listened to a wide range of experts and sought the views and ideas of citizens. As a result of our studies, we recommend an incentive-based program that encourages broad-based participation, learning, innovation, flexibility, and experimentation; grants formal credit for legitimate and verifiable measures to protect the climate; ensures accountability; is compatible with other climate protections strategies and environmental goals; and includes local, state, and federal government leadership.

An early action program is justified entirely on its own merits because it will improve economic performance and will reduce local environmental pollution as well as greenhouse gas emissions. However, we recognize that discussion of the value of an early action program has also, and we believe erroneously, become tied to the debate over the Kyoto Protocol. These principles do not presume a decision as to whether the United States should become a party to the Protocol. But they do allow for the possibility that the United States could agree to limit its greenhouse gas emissions in the future. An early action program that grants credits against potential future obligations would facilitate achievement of any binding agreement because it would create a powerful incentive for many emitters to get on a gradual "glide path" for emissions reductions.

We hope you will find these principles helpful, and that they will provide a useful foundation for policy discussions on early action strategies in your Administration. We welcome your response and guidance as we continue carrying out your request to recommend climate policy options.

Sincerely,

Ray Anderson
Co-Chair, PCSD
Chairman, Interface, Inc.

D. James Baker
Co-chair, Climate Task Force
Under Secretary for Oceans and Atmosphere

Jonathan Lash
Co-Chair, PCSD and Co-Chair, Climate Task Force
President, World Resources Institute

Steve Percy
Co-Chair, Climate Task Force
Chairman and CEO, British Petroleum America, Inc.

Fact Sheet -- Principles for Early Action October 27, 1998

Why do we need an early action program?

The PCSD Climate Task Force accepts that the risk of human-induced climate change and the potential for serious impacts is of sufficient concern that timely and effective actions should be taken to reduce those risks. Greenhouse gases have atmospheric lifetimes of decades to centuries, and both the concentration of greenhouse gases in the atmosphere and the rate at which those concentrations increase are important factors in determining the risk of climate change. Incentives for early action can encourage steps to reduce emissions and other measures to protect the climate now.

Are these Principles for Early Action conceptually different from the Climate Change Action Plan and the Climate Change Technology Initiative?

The 1993 Climate Change Action Plan (CCAP) includes over 40 federal programs that are working in partnership with small and large businesses, state and local governments, and other organizations to reduce U.S. greenhouse gas emissions. The proposed 5-year Climate Change Technology Initiative would expand these programs and target additional opportunities to reduce emissions. These two programs will significantly reduce the rate of growth of U.S. greenhouse gas emissions compared to forecasted levels. Members of the PCSD Climate Task Force envisioned an incentives program that will further encourage everyone to take seriously the need for action. The Task Force recommends an early action program that includes broadly-based participation; encourages learning, innovation, flexibility, and experimentation; grants formal credit for legitimate and verifiable actions that reduce overall emissions; ensures accountability; is compatible with other climate protection strategies and environmental goals; and includes government leadership.

What is the relationship between "credit for early action" and the Kyoto Protocol?

The Principles state that "Formal credit for domestic actions should be issued with the understanding that these credits are allocated from any future limit on U.S. emissions." These principles do not presume a decision as to whether the United States should become a party to the Protocol. But they do allow for the possibility that the U.S. could agree to limit its greenhouse gas emissions in the future.

Why should an early action program offer formal credit?

Although only part of an overall early action strategy, credits for early action are an important insurance policy for those who want to take voluntary steps to protect the climate, but are concerned they could be penalized in the future for having taken proactive steps today. An early action program that grants credits against potential future obligations would facilitate achievement of any binding agreement because it would create a powerful incentive for many emitters to get on a gradual "glide path" for emissions reductions.

If we give credits away now, will that increase future compliance costs?

Taking cost-effective action to reduce overall emissions now is a down payment on any future limit on emissions. By acting now, we will reduce the total amount of emissions we have to reduce later. By creating a more gradual glide path for emissions reductions, this incremental approach could save money compared to a wait-and-see strategy that could require significant emissions reductions sometime in the future.

Why should governments take the lead in a voluntary program?

Members of the the Task Force believe that voluntary efforts by businesses and consumers to protect the climate could be facilitated by a systematic legislative approach to stimulate early action. In addition, local, state, and federal governments are large energy consumers and, therefore, are significant emitters of greenhouse gases. Governments can save taxpayers money by taking cost-effective steps to reduce emissions.

Why is broadly-based participation important?

Greenhouse gas emissions come from a variety of stationary, mobile, small, and large sources. By encouraging everyone to take action, more businesses and consumers have the opportunity to reduce emissions cost-effectively and realize the environmental and other economic benefits of voluntary climate protection.

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Speech by Stuart E. Eizenstat
Under Secretary of State for Economic, Business,
and Agricultural Affairs

FIGHTING GLOBAL WARMING: FROM KYOTO TO BUENOS AIRES AND BEYOND

Center for National Policy
October 28, 1998

Good morning. I am especially pleased to be at the Center for National Policy. I was present at its creation and involved in its initiation, served on its Board for many years, and became a great admirer of Mo Steinbruner, the Center's talented President. I want to talk about the progress the Administration has made on climate change, and what we hope to accomplish at the upcoming negotiations in Buenos Aires. I had the privilege of heading the U.S. team in Kyoto, and will do so again in Buenos Aires. We have a fine team of experts working on this issue. It shows in the tremendous progress we have made towards achieving an international approach that can insure at a reasonable cost against the potential damage of climate change.

In just under a year since some 160 countries reached the historic Kyoto agreement on climate change at the third Conference of the Parties (COP3), we have made significant progress on multiple fronts. We look to COP4 in Buenos Aires not as a place for spectacular diplomatic breakthroughs as we accomplished in Kyoto, but as a significant milestone in efforts to consolidate our gains and to make concrete and operational our Kyoto achievements.

Kyoto Accomplishments:

Kyoto was a genuine breakthrough. For the first time markets will be put to work to help international efforts to address an environmental problem -- climate change, the most profound environmental challenge of the 21st Century. International action was taken in response to powerful scientific consensus that global warming is indeed

occurring, and that the cause is greenhouse gas emissions related to human activity. In Kyoto, industrialized countries took on binding targets to cut aggregate emissions by 5.2% below 1990 levels.

The Protocol reflects the environmentally and economically sound approach of the United States. It is strong and realistic; it is market-based and flexible. As the U.S. called for, the Protocol established a commitment period of 2008 to 2012, which gives us start-up time to adjust and a five-year period over which to achieve our emissions reduction goal. As we wanted, the Kyoto agreement also provided similar but differentiated targets among developed countries to allow for varying economic profiles and levels of industrialization. We achieved the inclusion of all six gases that contribute to the problem, over the objections of the European Union and Japan. The United States also pressed successfully for coverage of carbon "sinks" in the Protocol, knowing that agriculture and forestry practices can help reduce carbon in the atmosphere and should be recognized as a tool in fighting global warming.

Perhaps the greatest achievement at Kyoto was the inclusion of the market-based, approach with flexibility mechanisms we championed to supplement domestic measures to reduce greenhouse gas emissions. These mechanisms provide the flexibility and incentives to help us find the least-cost reductions worldwide to achieve Kyoto's overall emissions target. The flexibility mechanisms include international emissions trading, the Clean Development Mechanism (CDM), and Joint Implementation (JI).

Emissions trading enables those countries with binding emissions targets to participate in an international market that for the first time gives explicit value to emissions reductions. If the cost of abatement in a given country is low by world standards, and that country is therefore able to get below its emissions target, it would have allowances to sell to those countries where abatement costs are relatively high. Both a seller and a buyer willing to pay for the allowance would have to play by the rules.

Kyoto's Clean Development Mechanism, involves voluntary, project-based investments by developed countries and their firms in developing countries. These would be win-win investments. Countries with binding emissions targets would get credit toward their targets for making beneficial investments in developing countries that provide capital and clean technology. Developing countries would get world-class technology as developed countries act to meet their targets. Joint Implementation allows developed country investors to share efforts on environment-friendly projects that limit emissions, and to share credit for the results against their emissions targets.

The Administration's economic analysis underscores the importance of trading in achieving emissions reductions agreed at Kyoto in a cost-effective manner. It shows that an effective international market for trading emissions allowances among industrialized countries alone could dramatically lower the resource cost to the United States. At the same time, making agreed reductions in greenhouse gases would help the United States avoid the damage of climate change, which some estimates place in the billions of dollars annually, and enjoy related health and other benefits. Moderate estimates of the economic cost of meeting the Kyoto targets assume implementation of the very flexibility mechanisms for which we fought at Kyoto, and now work to make a reality.

The Kyoto framework reflects both the view that climate change is a serious, global environmental problem which must be addressed at the lowest cost to the world economy, and the experience that it can be done without a large bureaucracy, overly-intrusive regulation or high taxes. The trading system used in our domestic SO2 program to reduce acid rain, for example, has achieved our environmental goals at just 50 percent of initial cost estimates. Despite the complexity of making Kyoto's provisions operational, and the need to build confidence in the international community that we can make them work to the benefit of all, much has happened in the last year to make this task all the more urgent.

It is becoming harder for skeptics to contest the science. Significant new findings over the past year reinforce the broad, scientific consensus that human activities are disrupting the earth's climate. New analyses of tree ring, ice melt, borehole and satellite data provide further evidence that global temperatures are rising as a result of increasing concentrations of greenhouse gases. Following 1997, the hottest year on record, the first nine months of 1998 have been even hotter. This year's extreme weather events have been of historic proportion and devastating cost – from raging fires in Indonesia, the Amazon, Florida and Mexico, to drought in Texas followed by life-threatening floods, and floods in China and Bangladesh that left tens of thousands homeless, hungry and sick. These events are a window on what the Earth may be like with global warming.

Progress This Year:

The past year has also seen tremendous progress in our fight against global warming. First, we have stepped up our domestic efforts. Since ratifying the original climate change treaty in 1992, the United States has put more than 50 domestic programs in place to help address the problem. There should be no doubt about our commitment to aggressive, domestic action. In just-completed budget negotiations, the Clinton Administration secured a 25 percent increase in investments against climate change -- in energy efficiency, renewables and R&D -- with resources now totaling some $1 billion for FY1999. These funds will go to a wide array of programs such as the Partnership for the Next Generation Vehicle, where we expect to see new U.S. cars in production early in the next decade with triple the gas mileage of today's cars, and the Partnership for Advancing Technology in Housing, or PATH, which will make new housing up to 50 percent more energy efficient. In addition, the Administration's electricity restructuring plan will increase efficiency, spur renewables and help cut emissions as well.

The Administration will come back with a request for more in the FY2000 budget, including added emphasis on incentives for farmers and others to explore opportunities in biofuels and to identify how land use practices can help clean carbon from the air. These are promising areas through which our agriculture and forestry sectors may well benefit from our efforts against global warming.

Second, the Administration has undertaken intensive consultations and mutual education efforts with business, agriculture and other citizens groups. We have successful discussions with industry groups to improve energy efficiency and cut emissions. Credit for early action on climate change is high on their list of priorities and on ours, so we welcome the bipartisan legislation on this issue recently introduced by Senators Chaffee, Lieberman and Mack. Industry is taking active steps already. Important companies such as IBM, Sunoco, British Petroleum, Shell, United Technologies and Intel have recently committed to reduce significantly their greenhouse gas emissions. BP is putting in place an internal trading system designed to keep the cost of meeting this goal as low as possible. We will be very interested in the results of these innovative efforts.

Third, over the last year, we have also mounted a comprehensive diplomatic effort to encourage developing countries to become meaningfully involved in limiting the increase in their emissions, consistent with needed growth. While we intend to sign the Protocol to help lock in the gains made at Kyoto, the President has indicated he will not submit the Kyoto Protocol for advice and consent by the Senate without meaningful participation by key developing countries. Many developing countries remain resistant to emissions targets, and mistrust the flexibility mechanisms. But our discussions with them have become more regular, substantive and detailed and they are becoming aware of their potential vulnerability to climate change, and of the benefits of taking action.

We are engaged with dozens of developing countries through our bilateral assistance programs to encourage them to take steps toward sustainable development. With $193 million appropriated for the Global Environmental Facility in this year's budget talks to cover U.S. arrears, the Facility should be able to complement some of these efforts through their climate-related programs.

Developing Countries:

In our approach to developing countries, we find it helpful to group them into several categories. This recognizes the substantial differences among them in terms of

emissions profiles, levels of development, capacity for effective action, and economic and political conditions. One category of developing countries combines relatively high-income developing and newly industrialized countries. This includes new members of the OECD and those nations that aspire to OECD membership. We have not only pressed hard bilaterally for their participation, but have achieved the backing of other countries to urge them to take on binding growth targets to limit the rate of increase in their emissions.

In another category are large emitters with low incomes. While none of these countries to date has indicated a willingness to take on quantitative targets, we have engaged vigorously with them at the highest levels and will continue to do so. In our discussions we emphasize strongly that flexibility mechanisms such as emissions trading and the Clean Development Mechanism will not only reduce greenhouse gases, but offer powerful financial incentives for new investments in their economies. The United States now has in place a high-level dialogue with China, for example, through which we have stressed the potential impacts of climate change on China as well as the health, energy efficiency and other benefits of early action.

There is another, mixed category of middle-income countries of varying sizes and emissions levels. Here we see particular opportunities in Latin American and the Caribbean. Argentina, as chair of the COP4 meeting is an important leader in this process. Brazil introduced the Clean Development Mechanism at Kyoto, and has led on renewable energy and alternative fuel strategies in the region. We have had setbacks in our progress with other middle income countries in Asia due to recent economic events, but we continue to work with them bilaterally and multilaterally.

Finally, there is a sizeable category of poor countries with low emissions and low incomes. Although climate change often poses serious potential threats to them, they have limited capacity to undertake the kinds of actions and commitments that we expect

of countries with more advanced economies. These include, for example, most of Sub-Saharan Africa and the small island states that are uniquely vulnerable to climate change. We are working with such countries to build their capacity to participate in solving the global problem of climate change.

Buenos Aires and Beyond:

At Kyoto we created the architectural structure of international efforts to address climate change. We hope Buenos Aires will create a process for installing the interior plumbing and circuitry to make Kyoto a reality.

First, in Buenos Aires we will oppose any backsliding on the grand bargain that was struck in Kyoto. At Kyoto, we joined others in taking on a strong emissions reduction target. We did it with the clear understanding that, like the European countries have done with their Bubble, we would be able to use the flexible, market-based Kyoto mechanisms without arbitrary limits to meet our obligations cost-effectively. That agreement must hold.

We have formed a successful alliance since Kyoto with eight other like-minded countries (including Canada, Japan and Russia) the "Umbrella Group" to develop common positions on Kyoto's flexibility mechanisms. With us they strongly oppose efforts by the EU countries to restrict the legitimate use of emissions trading and the other agreed flexibility mechanisms.

There should be no limit on how much the United States can do at home -- and we are making aggressive efforts -- but neither can there be a limit on what we can accomplish through agreed flexible mechanisms. We will adamantly oppose efforts to set arbitrary limits on trading. They threaten to undo the Kyoto agreement, and would impose unsustainable costs on the U.S. economy and actually discourage deeper reductions in greenhouse gas emissions.

Second, we will stress that Buenos Aires should avoid divisive polemics regarding caps on the flexibility mechanisms and concentrate instead on developing a work plan and a working group process, with clear timetables for elaborating the rules for trading and the other market mechanisms. This is urgent if we are to make sufficient progress to have the CDM up and running by 2000 as the Protocol provides. At the same time, the rules must not entail too much red tape or excessive bureaucracy. The Buenos Aires work plan must also recognize the need to develop appropriate mechanisms for measurement, reporting and compliance in a system with high standards.

Third, we will hold intensive bilateral and multilateral discussions directly with developing countries and work to build the momentum for action. We cannot solve the problem without them. It is critical that we strongly encourage discussion of these issues among the Parties in Buenos Aires and strive for progress on developing country participation. We will encourage developing countries to see that it is in their interest to take committed action and to view the Conference of the Parties as a venue to work together to address climate change responsibly, so that it promotes their sustainable development.

November's international negotiations on climate change in Buenos Aires will not have the glamour and novelty of Kyoto. But they can advance the tough work needed to make Kyoto's remarkable promise a reality. We hope to get beyond rhetoric and ideology and shape the tools needed to get the job done for the benefit of all.

Thank you.

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22

Divider Title: _____

Cut-price emissions

10/28/98

Emissions trading is good for the world economy and the environment

On November 2 in Buenos Aires, the parties to the agreement on global climate change reached in Kyoto last December will gather to pursue the hard work of filling in the blanks to that historic accord. But a controversy over how to implement critical market-based provisions negotiated last year threatens to disrupt the steady progress that should be everyone's goal.

The Kyoto protocol sets ambitious targets for developed countries to reduce their greenhouse gas emissions, which most scientists believe are causing higher temperatures and disrupting the world's climate patterns. Preserving a stable and hospitable climate will require a sustained commitment to reduce emissions over time. That it why it is so important, right from the start, to focus on how countries can meet their targets at the lowest possible cost.

This link between ambitious environmental targets and low-cost implementation was central to the success of the Kyoto negotiations. In the protocol, parties agreed that countries may meet their targets through a combination of domestic and international actions, including "emissions trading". This is a market mechanism that promotes cost-effective reductions by allowing countries or companies to trade emissions allowances. Without this flexibility, it simply would not have been possible to take on targets as ambitious as we agreed to in Kyoto.

Unfortunately, many countries and organisations most passionately committed to solving the problem of climate change are, in our view, mistakenly opposed to emissions trading or determined to place counterproductive restrictions on it. If this view succeeds, it will dramatically increase the costs of protecting our environment and imperil many countries' ability to go forward with Kyoto.

Emissions trading is the key to strong targets because it makes possible the largest greenhouse gas reductions for each available

Up for sale: companies will have to pay for the right to pollute

dollar, mark, pound, franc, or yen. In America's acid rain emissions trading programme, every emitter must have an allowance for each ton of sulphur dioxide it emits. For some emitters, the cost of cutting a ton of emissions is many times greater than for others. Those who find the cheapest ways to cut emissions are tangibly rewarded, because they can sell any allowance they do not need to others that face higher costs.

The results speak for themselves. US acid rain-causing emissions are being cut ahead of schedule at 50 per cent of the expected cost, bringing cleaner air to millions of Americans. Economists of every stripe agree that the costs of reducing greenhouse gas emissions for all countries – not just the US – will be dramatically lower with an efficient trading system. Within the European Union alone, measures to control greenhouse gases are as much as *six times* more expensive in some countries than in others, according to European private sector analysts. The cost differences are even greater when looking at all industrialised countries, and greater still between developed and developing countries. Trading gets the incentives right by encouraging cuts where they can be achieved at the lowest cost.

Of course, emissions trading is not a substitute for an aggressive national commitment to controlling greenhouse gases. Rather, it is just one tool for carrying out such a commitment. The US has been pursuing nearly 50 programmes to reduce emissions and improve energy efficiency since 1993, the year after it ratified the original climate change treaty. In October last year, President Bill Clinton proposed a significantly stepped-up effort, including $6.3bn over five years in tax incentives and R&D to cut carbon dioxide through increased energy efficiency and renewable energy, and to reduce the other greenhouse gases. In the recently completed budget negotiations, the president secured a 25 per cent increase in climate change investments over last year's total.

The US plan also includes restructuring the electricity industry to provide market incentives for renewables and increased efficiency; consultations with industry to develop sector-by-sector plans to reduce emissions; an aggressive plan to improve the federal government's own use and procurement of energy; and ultimately, after US ratification of the Kyoto protocol, a greenhouse gas emissions trading programme based on our acid rain experience.

We recognise that many people have questions about how emissions trading can be made to work internationally. Some are concerned about weaknesses in national and international institutions to measure emissions and ensure compliance. That is why the US is committed to building an international trading system of the highest integrity, with strong incentives for compliance. In fact, the US is already working with a number of developed and developing countries to help strengthen their capacity to measure emissions and participate in an emissions trading system with high standards.

Others have argued for limits on how much of a nation's Kyoto target can be met through international emissions trading. This is a deeply flawed idea. Limits on trading would greatly increase administrative costs, be exceedingly difficult to implement, and generally make it much more expensive to address climate change.

In fact, the adverse impact would be even greater in Europe than in the US: restrictions currently proposed by some governments could well double carbon allowance prices in the US and triple those allowance prices in the EU – without providing any reductions in worldwide greenhouse gas emissions beyond the targets established in Kyoto. Limiting trading will make any given amount of emissions reductions cost more. It makes little sense to waste resources at a time of uncertain growth prospects in the global economy, nor to limit the potential of emissions trading to spur investment and innovation and to expand job opportunities.

We owe it to future generations to protect them from the damaging effects of climate change. That is why it is vital that Buenos Aires build on the momentum generated at Kyoto. The best way to protect the environment is to provide the right economic incentives and, by so doing, get the fastest, deepest reductions at the lowest possible cost. Let us work together, do this right, and take good care of both the world's environment and its economy.

Carole Browner is the administrator of the US Environmental Protection Agency. Stuart Eizenstat is US undersecretary of state for economic, business and agricultural affairs.

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23

Divider Title: _____

"Climate Change: Taking Stock"
By Todd Stern

This past year the world has made important progress in mobilizing to confront the threat of global warming, one of the great environmental challenges of the 21st century. Now, as the 160 nations that negotiated last year's landmark Kyoto Protocol gather in Buenos Aires for the next round of talks, it is fitting to take stock of how far we have come and how far we still have to go.

The United States is heading into Buenos Aires with significant momentum thanks to President Clinton's success in securing over $1 billion for his climate change technology initiative for fiscal year 1999, a 25% increase. This funding will support research and development in energy efficiency and renewable energy -- investments that will reduce greenhouse gas emissions, create jobs, and save money for consumers and business. The Administration also succeeded in defeating a series of anti-environmental riders, including a gag order that sought to bar us even from educating the public about climate change.

Still more encouraging are the constructive developments in the private sector, where a growing number of businesses are publicly recognizing the threat of climate change and the need for precautionary action. For example, the 18 members of the Pew Center's Business Environmental Leadership Council have explicitly called for prompt action to reduce greenhouse gases emissions. Recently, British Petroleum, Shell, United Technologies and IBM have announced specific numerical commitments for reducing their emissions. And just last week, General Motors, Monsanto, BP and the World Resources Institute jointly declared that there are real business opportunities for corporate leaders who act early to reduce the risk of climate change. This growing receptivity on the issue has been reflected as well in the Administration's own consultations with U.S. industry on how, with government support, they can take effective, voluntary action to reduce emissions.

The past year has also produced important new scientific findings -- including new analyses of tree ring, ice melt, borehole and satellite data -- reinforcing the consensus that human activities are starting to disrupt the Earth's climate. And it has been a year of truly extraordinary weather. Last year was the hottest on record, and so far 1998 has been even hotter. Meanwhile, El Niño offered us a troubling window on the kind of extreme weather that global warming may bring: drought-driven fires in Indonesia, the Amazon, Florida and Mexico; droughts followed by floods in Texas; and ruinous floods in China and Bangladesh.

On the international front, last December's Kyoto Protocol was the seminal event of the year. By agreeing to cut their greenhouse gas emissions, the world's leading economies took an historic step forward in addressing global warming. Thanks largely to the efforts of the United States, the Protocol takes a flexible, market-based approach that will allow emissions to be reduced in ways that make the most sense both environmentally and economically. This flexible approach includes emissions trading, and the new "Clean Development Mechanism," under which industrialized companies can undertake clean energy projects in the developing world and share

the resulting emissions credits with the host countries. These provisions will help the world reduce emissions at the lowest cost, ensuring that we get the biggest environmental bang for the buck. The Protocol also contains provisions that protect our national security, ensuring that our Kyoto targets will in no way constrain the activities of our military forces.

Despite significant progress, we still have a long way to go. Diplomatically, important work remains on the flexibility measures, the way to treat carbon-absorbing "sinks" (such as forests), developing country participation, and compliance. What we need in Buenos Aires is not a great leap forward, but steady, solid progress that can begin to turn the Kyoto Protocol into reality. The United States delegation will work to advance our positions in all these areas. Among other things, we will continue to press for meaningful participation by developing countries, and we will resist efforts by some to limit a country's right to engage in emissions trading or make investments in developing countries under the Clean Development Mechanism. Such limitations would accomplish only one result -- making the reduction of greenhouse gases more expensive for everyone. In a world where there is limited capital to deal with an array of profound challenges, it makes no sense to deliberately design a system that makes reducing carbon emissions more expensive than it needs to be.

As we look past Buenos Aires to the year ahead, the Administration will be working on new domestic efforts to spur development and broader use of clean energy technologies and will continue engaging with private industry to achieve better energy efficiency and reduce greenhouse gas emissions. And we will strongly support efforts to ensure that U.S. companies earn credit for early actions to reduce their emissions.

The threat of climate change has been decades in the making and it will take many years to solve. But with our best science and technology, smart market-based solutions and, most of all, firm political will, we can get the job done. President Clinton's balanced approach to the challenge of global warming will allow us both to maintain a growing economy and protect the environment.