GLOBAL WARMING
Kyoto Protocol

The Kyoto Protocol on Climate Change
The Kyoto Protocol to the United Nations Framework Convention on Climate Change was adopted by over 160 nations on December 11, 1997. On November 12, 1998 , the United States signed the Protocol in Buenos Aires. As of mid-January, 1999, 71 countries had signed the treaty, including the European Union and most of its members, Canada, Japan, China, and a range of developing countries.

Goals and Objectives
The most important provisions of the Protocol set **binding limits on greenhouse gas emissions** for developed countries, those most responsible for current levels of greenhouse pollution. At the same time, the Protocol creates **significant incentives for developing countries to control their emissions** as their economies grow. In doing so, the Protocol has set the community of nations on a path toward clean, renewable and efficient energy use that will strengthen our global economy and protect our global environment.

While the Protocol is a significant achievement, it also remains a work in progress. Nations must still craft guidelines for important components of the treaty, including an international pollution trading regime and compliance measures. How these components are designed will determine the effectiveness of the Protocol in achieving our long-term goal of environmental protection and sustained economic growth.

Targets and Timetables
The Protocol sets binding limits on greenhouse gas emissions for 38 developed countries, called the "Annex B Parties." (A Party to the Protocol is either a single nation, such as the U.S., or a group of nations, such as the European Union.) Countries accepted varying targets based on the **principle of "differentiation,"** which recognizes that some countries are more capable of reducing their emissions than others because of how they produce and use energy, their access to clean technologies and their relative levels of pollution, among numerous other factors.

The Protocol commits the U.S. to reducing its emissions to an average of **7% below its 1990 levels in the years 2008 - 2012**. The European Union has a target of 8% below its 1990 levels, Japan a target of 6% below its 1990 levels and Australia a target of 8% above its 1990 levels. All Annex B Parties share a 2008 - 2012 budget period. A budget period using a five-year average instead of a single-year target was adopted so that Parties will not be forced into noncompliance by unavoidable short-term jumps in emissions that may result from events like extreme weather. Taken together, Annex B Parties will reduce emissions from developed countries to an average of 5.2% below 1990 levels in the years 2008 - 2012. (See page six for a list of Annex B Parties and their targets.)

What Gases are Covered
The Protocol restricts emissions of six greenhouse gases. They are **carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6)**. The Protocol treats the gases differently. Most of the Annex B Parties, including the U.S., have targets for CO_2, CH_4 and N_2O based on 1990 level emissions, and may select either a 1990 or 1995 base year when setting targets for HFCs, PFCs and SF_6. Annex B Parties that are developing market economies, such as the Russian Federation, may select a different base year for all six gases.

Lowering the Cost of Compliance
The Protocol includes several market-based provisions intended to lower the cost of reducing emissions and spur the creation of clean technology, including **emissions permit trading, project-based credit trading and the Clean Development Mechanism**. Although these policies are established in the Protocol, the rules governing their implementation and operation are to be decided at future talks. How these policies are eventually designed will determine the effectiveness of the Protocol.

Emissions Permit Trading: Largely due to U.S. insistence the Protocol allows for the creation of an **international system of emissions permit trading** among Annex B Parties, similar to the Clean Air Act in the U.S. Under this provision, an Annex B Party with emissions exceeding

its target will be able to buy emissions permits from an Annex B Party with emissions below its target. The intended result will be that an Annex B Party will be able to choose between reducing emissions through domestic measures and purchasing those reductions on the emissions permit market, based on cost. Emissions trading may also be extended to specific companies within Annex B Parties.

Project-based Credit Trading: Project-based credit trading, also referred to as joint implementation (JI), is established under the Protocol for Annex B Parties. Through these provisions, an **Annex B Party will receive credit toward meeting its emissions target by supporting specific projects that reduce emissions in another Annex B Party**. Project-based trading may also be extended to specific companies within Annex B Parties. For example, an American company would have the option to reduce emissions at its facility here in the U.S. or to acquire those reductions by financing an emissions reduction project in an Annex B Party. This may include projects like raising the efficiency of a power plant or factory through financial assistance or technology transfer, or projects that sequester emissions like forest conservation.

Clean Development Mechanism (CDM): The CDM is designed to lower the cost of compliance for Annex B Parties and promote participation by the developing world through the diffusion of clean technologies. Annex B Parties (and likely specific companies) will have two options to acquire reductions through the CDM. First, the CDM extends JI to developing countries by **allowing Annex B Parties to earn credit toward meeting their emissions targets by partnering with a developing country in a project to reduce emissions in that developing country**. For example, an Annex B Party could acquire reductions by helping a developing country distribute solar technology to citizens who would otherwise depend on polluting fuels for energy. Second, Annex B Parties will be able to **purchase reductions permits directly from the CDM**. Proceeds from these permit sales will fund projects to reduce emissions in developing countries, assist nations harmed by the impacts of climate change and pay administrative costs. The CDM also creates a significant incentive for early action by allowing Annex B Parties to count reductions acquired through the CDM starting in 2000 against their budget period in 2008 - 2012.

Developing Countries
The Protocol includes additional provisions that require and encourage the participation of developing countries to slow the growth of their emissions in the near term, and create a pathway for them to eventually accept binding targets. The market-based policies in the Protocol, if designed properly, will create incentives for developing countries to participate more fully by providing them the capital, technology and natural resource management that can help propel sustainable economic growth. The Clean Development Mechanism, emissions trading and project-based credit trading have the potential to create "win-win" transactions between the Annex B Parties and developing countries. For example, in what is expected to be a typical transaction, an Annex B Party would acquire credit toward meeting its emissions target in return for providing a developing country assistance in building an environmentally sound power plant. Developing countries can participate in the CDM immediately, but they must adopt binding targets to participate in emissions credit trading and project-based credit trading. Developing countries can accept binding targets through a three-fourths majority vote of the Parties. The Protocol requires developing countries to inventory and report their emissions, and that they develop national programs to mitigate and adapt to climate change. In addition to these requirements and incentives for developing country participation, the U.S. has made known that it will pursue bilateral talks with the larger developing countries in hopes of securing further participation.

Sinks
Forests, agriculture and other systems that absorb and store carbon are called "sinks." The Protocol recognizes their importance by including the preservation and development of sinks as steps that an Annex B Party can take to meet its emissions target. While the inclusion of sinks may potentially have a positive impact on the protection of the atmosphere and forests, the language of the Protocol is ambiguous and creates both incentives and disincentive to sound forest management. In particular, the Protocol could actually promote the harvest of old growth forests, one of our most valued natural resources. Parties have agreed to resolve this ambiguity by developing guidelines for the counting of sinks at future talks. The outcome of these talks will determine the effectiveness of the Protocol at protecting the atmosphere and forests worldwide.

Compliance

For the Protocol to be effective it must require strict compliance from both Annex B Parties and developing countries. Although the most important compliance measures will be crafted at future talks, the Protocol contains several incentives for Parties to comply. For example, the Protocol includes a <u>requirement</u> that <u>Annex B Parties inventory and report emissions</u>. Any Annex B Party that <u>fails to satisfy this requirement</u> will be <u>prohibited from acquiring emissions credits</u> through the tradable emissions permit market, project-based trading or Clean Development Mechanism. Further, if an Annex B Party acquires emissions credits and is <u>later found in noncompliance</u>, it will <u>not be allowed to count those credits</u> toward meeting its target until it has resolved its compliance issue. The Protocol provides that Parties will craft <u>additional compliance measures after the Protocol enters into force</u>. Any binding compliance measure can only be adopted by a three-fourths majority vote of the Parties.