

CRS Report for Congress

Received through the CRS Web

Global Climate Change: The Role of U.S. Foreign Assistance

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Summary

With their expanding populations and growing economies, developing countries are expected by the year 2010 to account for roughly half of emissions of the greenhouse gases that most experts believe cause global warming. The Clinton Administration has announced a \$1 billion five year effort to help developing countries cut emissions and meet the goals of the climate change treaty. The initiative follows on years of funding by the U.S. Agency for International Development of projects to promote efficient energy use, combat deforestation, and encourage adoption of appropriate environmental policies in developing countries.

Developing Countries and Global Warming

The part played by developing countries in the global warming phenomenon that many believe may eventually threaten climatic stability, world food supplies, and even the existence of some island nations is the subject of some controversy. The current Framework Convention on Climate Change embraces the principle that developed and developing countries bear different responsibilities and possess different capabilities to deal with the problem. Developed nations are expected to assist developing nations to meet convention objectives with financial and technical aid.

An amendment to the convention to reduce emissions of "greenhouse gases" aimed at establishing legally binding commitments for developed countries is currently under negotiation and is expected to be concluded in Kyoto, Japan in December 1997. Under the Byrd resolution (S.Res. 98), approved in a 95-0 vote, the Senate has gone on record to say that it would not support a treaty that excludes the developing nations from binding commitments and emission reduction targets. Developing countries say they will not make commitments until the developed countries do so first. (See CRS Issue Brief 89005, *Global Climate Change*, for discussion of related issues).

Although the 36 industrialized developed and "transition" countries are historically responsible for the majority of greenhouse gases that may cause global warming, the roughly 130 developing countries, by virtue of their growing populations and nascent, but rapidly expanding, economies, are expected to contribute half of all such emissions by the year 2010. Exacerbating the role of developing countries in climate change are their less advanced methods of pollution control. They currently require 40% more energy than developed nations to produce the same value of goods and services. State-owned utilities, using poor equipment, and subsidized energy prices have led to inefficient energy uses. Further, widespread deforestation — primarily caused by forest burning and a product of population pressures and poverty in developing countries — is estimated to be responsible for up to 20% of net annual increases in carbon emissions.

The President's \$1 Billion Initiative

In June 1997, the Administration announced a \$1 billion 5-year Developing Country Climate Change Initiative that would seek to reduce greenhouse gas emissions and help countries meet the goals of the climate change treaty. It consists of three elements. First, it would provide a minimum of \$750 million — \$150 million per year — in bilateral grant assistance for climate change related programs. Second, it would support up to \$250 million in "climate-friendly" investment through the use of credits, subsidized by the U.S. government. The credit program would require congressional authorization.

The third component of the Initiative is a \$25 million Inter-Agency Climate Change Program. The latter consists largely of two existing programs — a U.S. Initiative on Joint Implementation (begun in October 1993) that encourages U.S. and other-country partners to work on joint projects to reduce greenhouse gases, and a Country Studies Program that provides support to more than fifty countries to assess their greenhouse gas emissions and ways of mitigating climate change.

Much of the proposed spending consists of repackaged or redirected funding already built in to USAID's budget projections, but, in all, the Administration proposes that, over the next five years, as much as \$250 million of the funds targeted on global warming will be new funds — additional to current program expenditure levels. Besides the \$1 billion for the initiative, other funds would go toward helping a number of vulnerable countries adapt to the effects of climate change -- increasing disaster preparedness, developing more adaptive crops, introducing flood control technologies, etc. Funding for the Initiative is expected to come out of amounts normally provided for environmental activities under the annual foreign operations appropriations bill.

The Initiative is primarily aimed at nine countries and three regions thought to be expected to become key contributors to total global greenhouse gas emissions: Brazil, Central Africa, Central America, Central Asia, India, Indonesia, Mexico, Philippines, Poland, Russia, South Africa, and Ukraine. At least 40% of the grant funds are expected to go to these target countries/regions. In addition, a significant percentage of funds under the Initiative will go to Egypt — a major recipient of U.S. foreign assistance — and the rest elsewhere. Two thirds of the credit program would be targeted on focus countries/regions. China, the most significant developing country contributor of greenhouse gases, is not a recipient of U.S. foreign aid.

Background: USAID and Global Climate Change

Under the auspices of the Agency for International Development (USAID), the U.S. foreign assistance program has attempted to affect the environmental policies and practices of developing countries since the 1970s. In response to a 1990 congressional mandate (P.L. 101-167, sec. 534), USAID established a Global Warming Initiative (GWI). This initiative supported projects totaling \$191.6 million in FY1995, \$174.2 million in FY1996, and an estimated \$149.5 million in FY1997. To a large extent, the President's Global Climate Change Initiative is an extension and strengthening of these earlier and on-going efforts.

Although USAID has climate-related projects in 44 countries, the GWI has been targeted at the same countries now expected to be the focus of the President's Initiative. In terms of overall funding, most assistance has gone to Asia and the Near East — 49% in FY1996. In these regions, Egypt is the leading recipient. This is followed by Europe and the former Soviet Union (21%), Latin America (10%), and Africa (9%), with Armenia, Brazil, and Malawi among the chief recipients in their respective regions.

Most of the hundreds of USAID GWI activities seek to reduce sources or increase sinks of greenhouse gases and focus mainly on two sectors — energy and forestry. The **energy sector** accounts for one half of the potential global warming problem. The chief objectives of USAID within that sector are to promote developing country use of energy efficient technologies, renewable energy facilities, and low carbon-emitting energy systems through encouragement of private sector and public/private partnerships, policy and regulatory reform, and development of improved environmental standards and government institutional capacities.

An Energy Efficiency Project begun in 1992, for example, has helped set up a special \$20-30 million fund for Brazilian medium sized commercial and industrial users to help finance their energy efficiency programs, and conducted workshops in India and elsewhere to introduce bankers and businessmen to energy efficiency financing mechanisms. The Project's Sustainable Cities Initiative hopes to stimulate private investment in energy efficient urban infrastructure with a series of pilot demonstration projects. In Ahmedabad, India, for instance, the Project has helped the municipal government, local utilities, and major resident textile companies to identify problems and solutions and locate financing for energy efficiency projects. Working with Mexico's National Energy Conservation Commission, the Project has supported the development of energy efficiency standards for that country.

Another project, the Clean Energy Production and Use Program, has sought to introduce new technologies to developing countries for cleaner use of fossil fuel-based energy production. For example, it helped retrofit the Manzanillo Power Station in Mexico with advanced combustion hardware that increased burner efficiency, reduced fuel requirements, and reduced plant emissions. In demonstration projects in Bangkok, Thailand, and in India, the Program sought to introduce electric vehicles, through emissions testing and conversion of fossil-fuel transport to electric. In Brazil, the Program is examining the potential recovery and commercial use of methane gas from solid waste landfills, a project with both health and, through associated reduction of carbon dioxide levels, environmental benefits.

USAID also supports projects fostering use of renewable energy. These include an Environmental Enterprises Assistance Fund that provides loans, equity capital, training, and technical assistance to renewable energy businesses in developing countries. The Biomass Energy Systems and Technology project funds demonstration projects using biomass wastes, such as sugar cane residue, for power and liquid fuel production.

Roughly one quarter of all carbon released from combustion comes from tropical forests cleared for agriculture. USAID therefore seeks to foster sound **forestry and natural resource** management practices, with the hope that this will lead to reducing deforestation and other carbon-emitting land-use changes and increasing carbon sinks by establishing new forests. Between 1991 and 1995, USAID spent more than \$425 million in the forestry sector. In Brazil, for instance, USAID supports the development of a model for reduced impact logging with eight demonstration plots in the Amazon, is monitoring forest burning using satellite imagery, and has facilitated a partnership between Brazilian NGOs and the Brazilian government's EPA to manage a national park.

In the Philippines, USAID established a Community-Based Forest Management Program which seeks to give local communities the ability to make decisions regarding land use, by making legal agreements between the government and local groups. In Haiti, USAID funds reforestation efforts, including the planting of 85 million trees. In Guatemala, USAID supports the development of the Maya Biosphere Reserve which is protecting a forest area of 1.9 million hectares. And USAID is assisting the Central African Regional Program for the Environment (CARPE) to reduce deforestation in the Congo basin, by funding research to identify strategies for reducing the negative environmental consequences of logging and to promote better agricultural practices.

Issues for Congress

Despite the Administration's characterization of its Developing Country Climate Change Initiative as something new, it appears to add little substance to what USAID is already doing as a result of the Global Warming Initiative begun at congressional impetus in 1990. Moreover, the funding level proposed — at least \$150 million in grant assistance per year — is less than pre-FY1997 levels for this activity. In the past few years, foreign aid environmental programs, traditionally strongly supported in Congress, have been squeezed by other developmental priorities — child survival and basic education, among them — and a decline in overall aid levels. Efforts to bring the developing countries to accept binding commitments in an amended Climate Change Convention are likely to be met by demands for developed country assistance to help them meet those commitments. While the FY1998 foreign operations appropriations levels suggest that proposed U.S. funding of climate change activities can be implemented in FY1998, future efforts to increase such funding might be problematic.

The effectiveness of these programs is also problematic. Although USAID is hoping to develop a methodology to measure impact, it funds hundreds of projects, where thousands may be needed to significantly affect country emission levels. Many of these are pilot demonstration projects that would have to be reproduced on a larger scale by the tens of thousands of businesses and millions of agriculturalists directly responsible for producing greenhouse emissions. To have a measurable impact on global warming, USAID programs also require the commitment of developing country governments to regulatory reform, strict enforcement, and other programs that might divert precious financial resources away from their economic growth and development priorities.