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Financial Resources and Transfer of Technology

The international commercialization of technologies that mitigate greenhouse gas emissions, reduce air pollution, and enhance energy security in a context of economic growth is a central objective of U.S. climate and development policies.

A successful global response to climate change requires the participation of countries from all regions of the world. At the same time the United States is working to address climate change at home, we are working closely with and supporting partners around the world. U.S. policies are seeking to help developing countries to slow emissions growth in the near term and build capacity for longer-term efforts to ensure cleaner, sustainable development and progress toward a low-emissions economy.

The U.S. approach recognizes that progress will be best achieved by embedding climate goals in a broader agenda for developing countries—including the promotion of economic growth, reduction of poverty, access to modern sanitation and clean water, enhanced energy security, and reduced air pollution. Cleaner energy technologies can help achieve all of these development objectives.

The United States is cooperating with countries around the world to promote effective climate approaches in the context of broader development strategies. Many developing countries have rapidly advancing industries and considerable technical capabilities. The United States regards these countries as crucial partners in our efforts to address climate change and promote sustainable development.

Technology transfer is a key component of the U.S. development assistance strategy. Elements of this strategy include establishing partnerships with developing and transition countries and creating incentives for investment in environmentally sound technologies. In turn, these climate-related activities complement core U.S. development assistance priorities that include (1) supporting economic growth and social development that protect the resources of the host country, (2) supporting design and implementation of policy and institutional frameworks for sustainable development, and (3) strengthening in-country institutions and capacity that involve and empower the citizens. The intended outcome of such assistance with a technology component is the development of resilient, robust societies, economies, and ecosystems that have the capacity to address the challenges and opportunities of both current and potential climate change conditions.

U.S. federal agencies promote the transfer of climate-friendly technologies through a range of tools and services. These include export credits, project financing, risk guarantees, and insurance to U.S. companies, as well as credit enhancements for host-country financial institutions. U.S. official development assistance and official assistance provide grants for a variety of technology transfer programs. Investments in physical capital, such as plants and equipment, involve U.S. government-supported project financing and credit enhancements, commercial sales, commercial lending, foreign private equity investment, and foreign direct investment. As a major shareholder in international financial institutions, the

United States has supported efforts to promote investments that will lead to cleaner development, especially in the energy area.

U.S. policies also contribute to both the efficient operation of private equity markets and policy and institutional frameworks to support private investments that promote cleaner and more efficient technology deployment and transfer. As highlighted in the 2002 *U.S. Climate Action Report (CAR)*, private equity investments in clean energy and other projects relevant to climate change are considerably larger than official development assistance (U.S. DOS 2002). Technology transfer is further strengthened by official activities that support policy and institutional environments in recipient countries and globally.

Since the 2002 CAR, the United States has actively promoted international science and technology partnerships that integrate the efforts of partner governments and private-sector wherewithal to address targeted objectives that can contribute to climate goals. Between 2001 and 2006, U.S. funding for climate change in developing countries totaled approximately \$1.4 billion, including \$209 million to the Global Environment Facility (GEF) in support of climate change projects (out of a total GEF contribution of approximately \$680 million) (Tables 7-1 and 7-2).

The United States has also played a leadership role in establishing a number of international partnerships focused on the development and commercialization of climate-friendly technologies and practices, and new mechanisms to transfer funding to and assist development in developing and transition countries. The Millennium Challenge Corporation¹ and the U.S. Agency for International Development's (USAID's) Global Development Alliance are changing how the United States promotes technology transfer and provides development assistance.

This chapter highlights U.S. international efforts. It outlines U.S. initiatives on climate change and clean development, U.S.-sponsored activities addressing vul-

nerability and adaptation, financial and technical assistance by U.S. agencies, trade and development financing, and private-sector involvement. It also explains how the United States is helping to meet the challenge of expected future growth in global energy demand while addressing climate change, by promoting approaches that effectively integrate both the near- and long-term environmental and economic goals. Table 7-3 presents more information on several of these efforts.

MAJOR U.S. INITIATIVES: TECHNOLOGY TRANSFER AND FINANCIAL ASSISTANCE

USAID Climate Change Program

Since 1991, USAID has included global climate change in its development funding, spending approximately \$2.6 billion on climate-related development projects and programs. Though the approach has gone through several iterations, its main thrust has been to incorporate climate change considerations into development projects, whether their focus is energy, land management, or vulnerability and adaptation. USAID works in developing and transition countries to implement “win-win” solutions that provide climate-related benefits, while also meeting development objectives in the energy and water sectors, urban areas, forest conservation, agriculture, and disaster assistance. These solutions include activities that (1) promote the transfer of clean energy technologies, (2) measure reductions in greenhouse gas (GHG) emissions, (3) promote carbon management through improved land use, (4) support countries to participate more effectively in the United Nations Framework Convention on Climate Change (UNFCCC), and (5) assess vulnerability to the impacts of climate change and increase adaptive capacity.²

Group on Earth Observations

Earth observations provide critical input for understanding the Earth system—its weather, climate, oceans, land,

geology, natural resources, ecosystems, and natural and human-induced hazards. This input is crucial to achieving sustainable development. The United States hosted the first Earth Observation Summit in Washington, D.C., on July 31, 2003, attended by 33 nations and the European Commission. The intergovernmental *ad hoc* Group on Earth Observations (GEO) formed at that meeting committed to developing a 10-year plan for implementing an integrated Earth Observation System. At the second Earth Observation Summit in Tokyo in April 2004, the GEO, representing 43 nations, adopted a framework for the system of systems, focusing on nine societal benefit areas. In February 2005, at the third Earth Observation Summit in Brussels, the nearly 60 nations of the GEO brought the first phase of the process to a close by adopting *The Global Earth Observation System of Systems (GEOSS) 10-Year Implementation Plan (GEO 2005)*, and establishing the new GEO.

The U.S. Group on Earth Observations (U.S. GEO) recently released a strategic plan for implementing the U.S. components of a comprehensive, coordinated, and sustained Earth Observation System (IWGEO and NSTC/CENR 2005). The U.S. contribution to GEOSS is the Integrated Earth Observation System (IEOS). GEOSS and IEOS will facilitate the sharing and applied use of global, regional, and local data from satellites, ocean buoys, weather stations, and other surface and airborne Earth-observing instruments. The end result will be access to an unprecedented amount of environmental information, integrated into new data products and services benefiting societies and economies worldwide. Application of these data through decision-support tools, outreach, and capacity building will both help efforts to mitigate and increase resilience to climate change.³

¹ See <<http://www.mca.gov/>>.

² See <http://www.usaid.gov/our_work/environment/climate/index.html>.

³ See <<http://iwgeo.ssc.nasa.gov/>>.

TABLE 7-1 U.S. Financial Contributions to the Global Environment Facility: 2001–2006 (Millions of U.S. Dollars)

From 2001 through 2006, the United States contributed \$679.44 million to the Global Environment Facility, which has a number of focal areas, including climate change.

| Institution | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | Total |
|-----------------------------|--------|--------|--------|--------|--------|-------|--------|
| Global Environment Facility | 107.80 | 100.50 | 146.90 | 138.40 | 106.64 | 79.20 | 679.44 |

Source: U.S. Department of the Treasury.

TABLE 7-2 Annual U.S. Financial Contributions to Multilateral Institutions (Millions of U.S. Dollars)

The U.S. government provides direct funding to multilateral institutions and programs in support of sustainable economic development and poverty alleviation. In many cases, a portion of this funding supports climate change activities.

| | 2001 | 2002 | 2003 | 2004 |
|---|----------------|----------------|----------------|----------------|
| World Bank Group | 783.273 | 797.400 | 846.095 | 908.929 |
| International Bank for Reconstruction and Development | 0.000 | 0.000 | 0.000 | 0.000 |
| International Development Association | 773.295 | 792.400 | 844.475 | 907.812 |
| Multilateral Investment Guarantee Agency | 9.978 | 5.000 | 1.620 | 1.117 |
| International Finance Corporation | 0.000 | 0.000 | 0.000 | 0.000 |
| Other Multilateral Institutions, Funds, and Programs | | | | |
| Inter-American Investment Corporation | 24.945 | 18.000 | 18.232 | 0.000 |
| Inter-American Development Bank - Multilateral Investment Fund | 9.978 | 0.000 | 24.431 | 24.853 |
| Asian Development Bank | 0.000 | 0.000 | 0.000 | 0.000 |
| Asian Development Fund | 71.842 | 98.017 | 97.250 | 143.569 |
| African Development Bank | 6.087 | 5.100 | 5.071 | 5.075 |
| African Development Fund | 99.780 | 100.000 | 107.371 | 112.060 |
| European Bank for Reconstruction and Development | 35.700 | 35.779 | 35.572 | 35.222 |
| International Fund for Agricultural Development | 4.989 | 20.000 | 14.906 | 14.916 |
| NADBank | 0.000 | 0.000 | 0.000 | 0.000 |
| United Nations Development Programme | 87.091 | 97.100 | 100.000 | 101.398 |
| United Nations Environment Programme | 10.000 | 10.750 | 10.500 | 10.935 |
| UNFCCC Supplementary Fund | 0.000 | 0.000 | 0.000 | 0.000 |
| Multilateral Scientific, Technological, and Training Programs | | | | |
| 1. OAS Development Assistance Programs | 5.500 | 5.500 | 5.500 | 5.468 |
| 2. World Food Program | 5.000 | 6.000 | 0.000 | 0.000 |
| 3. U.N. Development Fund for Women | 1.000 | 1.000 | 1.000 | 0.994 |
| 4. World Trade Organization | 1.000 | 1.000 | 2.000 | 0.994 |
| 5. International Civil Aviation Organization | 0.300 | 0.300 | 0.300 | 0.994 |
| 6. Montreal Protocol Multilateral Fund | 26.000 | 25.000 | 23.000 | 20.876 |
| 7. International Conservation Programs | 5.450 | 7.700 | 6.225 | 6.362 |
| 8. Intergovernmental Panel on Climate Change/UNFCCC | 6.500 | 7.400 | 6.000 | 5.567 |
| 9. International Contributions for Scientific, Educational, and Cultural Activities | 1.750 | 1.750 | 1.750 | 1.889 |
| 10. World Meteorological Organization | 2.000 | 2.000 | 2.000 | 1.988 |
| 11. Center for Human Settlements | 0.000 | 0.000 | 0.250 | 0.746 |

Sources: Congressional Budget Justification, World Bank, International Finance Corporation, and Asian Development Bank annual reports.

TABLE 7-3 Sample U.S. Government Efforts Promoting the Transfer of Climate-Friendly Technologies and Practices

Since 2001, the United States has established several partnerships with developing and transition countries, with the primary goal of promoting the development and deployment of climate-friendly technologies and practices. Some examples of those partnerships are presented in this table.

| Purpose | Description | Recipient Countries or Partners | Sector | Funding | Years in Operation | Factors Enabling Project's Success | Technologies Transferred | Impact on GHG Emissions/Sinks |
|---|--|---|------------|---|--|---|--|-------------------------------|
| U.S./China Energy and Environmental Technology Center (EETC) | | | | | | | | |
| Promote the efficient, responsible production and utilization of clean fossil energy; encourage environmental performance, while improving China's quality of life. | Focused on emission-reducing and clean coal technologies, EETC is working with Chinese organizations to create U.S. business opportunities in China's energy sector. | Implemented jointly by the U.S. and Chinese governments, and Tulane and Tsinghua universities. | Energy | \$1,000,000 in fiscal years 2004 and 2005; \$994,000 in fiscal year 2004. | Created in 1997. | U.S. clean energy and environmental technologies and expertise. | | |
| Famine Early Warning System Network (FEWS NET) | | | | | | | | |
| Establish more effective, sustainable, host country-led networks that reduce vulnerability to food insecurity. | FEWS NET assesses short-to long-term vulnerability to food insecurity with environmental information from satellites and agricultural and socioeconomic information from field representatives; conducts vulnerability assessments, contingency and response planning, aimed at strengthening host country food security networks. | Afghanistan, Burkina Faso, Chad, Djibouti, Eritrea, Ethiopia, Guatemala, Haiti, Honduras, Kenya, Malawi, Mali, Mauritania, Nicaragua, Niger, Mozambique, Rwanda, Somalia, Sudan, Uganda, Zambia, Zimbabwe | Adaptation | \$13 million per year. | FEWS: 1985-2000; FEWS NET: 2000-current. | The combined U.S. environmental monitoring expertise of NASA, NOAA, and USGS; implementation by host country field staff. | Information networks: remote-sensing data acquisition, processing, and analysis; geographic information system (GIS) analytical skills. Equipment to facilitate adaptation: GIS hardware and software. | Not applicable. |

TABLE 7-3 (Continued) **Sample U.S. Government Efforts Promoting the Transfer of Climate-Friendly Technologies and Practices**

| Purpose | Description | Recipient Countries or Partners | Sector | Funding | Years in Operation | Factors Enabling Project's Success | Technologies Transferred | Impact on GHG Emissions/Sinks |
|--|--|--|-------------|---|----------------------------|---|--|--|
| International Nuclear Energy Research Initiative | | | | | | | | |
| Leverage research, development, and demonstration funds through joint work with members of the Generation IV International Forum. | <p>The Brazil project includes studies on instrumentation and controls and human interface technologies for the International Reactor Innovative and Secure (IRIS) design.</p> <p>The Republic of Korea project includes studies on innovative safety technologies for advanced light-water reactors and gas-cooled fast reactors; provides simulation testing, computational data, and analyses relating to reactor physics and materials; and researches sensors and computational technologies.</p> | Brazil and Republic of Korea | Electricity | <p>Brazil: \$3 million over 5 years.</p> <p>Republic of Korea: \$25 million over 5 years.</p> | 60 years, when built. | Results of RD&D will lead to design improvements, making future reactor facilities safer and more efficient. | Safety, reactor physics, and materials technologies. | Reactors operated over 60 years in Brazil and Republic of Korea have the respective potential to displace over 2 and 4 MMT of CO ₂ emissions per year, for respective totals in excess of 125 and 250 MMT over their lifetime. |
| Methane to Markets Partnerships | | | | | | | | |
| Reduce global methane emissions to enhance economic growth, promote energy security, improve the environment, and reduce greenhouse gases. | Focuses on cost-effective, near-term methane recovery and use as a clean energy source; creates the framework for encouraging investment in methane capture and use projects. | Argentina, Australia, Brazil, Canada, China, Colombia, Ecuador, Germany, India, Italy, Japan, Mexico, Nigeria, Poland, Republic of Korea, Russia, Ukraine, United Kingdom, United States | Electricity | \$53 million over 5 years. | Launched in November 2004. | Encouraging implementation of proven methane capture and use technologies will result in substantial near-term global methane reductions. | | By 2015, this effort could lead to annual reductions of methane emissions of up to 50 MMTCE or recovery of 500 billion cubic feet of natural gas. If achieved, these results could lead to stabilized or even declining levels of global atmospheric methane concentrations. |

TABLE 7-3 (Continued) **Sample U.S. Government Efforts Promoting the Transfer of Climate-Friendly Technologies and Practices**

| Purpose | Description | Recipient Countries or Partners | Sector | Funding | Years in Operation | Factors Enabling Project's Success | Technologies Transferred | Impact on GHG Emissions/Sinks |
|--|--|---------------------------------|-------------------------------|-----------|----------------------|--|---|-------------------------------|
| International Partnership for the Hydrogen Economy (IPHE) Hydrogen Energy Technology Roadmap Development Assistance | | | | | | | | |
| Provide technical assistance to key IPHE partners to accelerate the development of hydrogen and fuel cell technologies and improve their energy, environmental, and economic security. | Both Brazil and China have completed their hydrogen energy roadmaps. | China, India, and Brazil | Alternative Energy Technology | \$250,000 | Established in 2003. | Compiling roadmap and strategy information from IPHE partners will facilitate effective and efficient collaboration on hydrogen and fuel cell RD&D activities. | Expertise in development of hydrogen energy technology roadmapping. | |

Asia-Pacific Partnership on Clean Development and Climate

The Asia-Pacific Partnership on Clean Development and Climate is an innovative effort among Australia, China, India, Japan, the Republic of Korea, and the United States to accelerate the development and commercialization of clean energy technologies and practices. Partner countries work together and with their private sectors to meet energy security, national air pollution reduction, and climate change goals in ways that promote sustainable economic growth and poverty reduction. The partnership's inaugural ministerial meeting took place in January 2006 in Sydney, Australia, and resulted in the issuance of a Charter, Communiqué, and Work Plan that guide the work of the partnership. Subsequently, the partnership established eight public/private-sector task forces on (1) cleaner fossil energy, (2) renewable energy and distributed generation, (3) power generation and transmission, (4) steel, (5) aluminum, (6) cement, (7) coal mining, and (8) buildings and appliances. These task forces have drafted action plans that underpin the col-

laborative activities among partner countries in these sectors. The international roll-out of these action plans took place on October 31, 2006, and included the endorsement of 96 projects.⁴ The Asia-Pacific Partnership is a key means of implementing Title XVI of the Energy Policy Act of 2005, which provides for U.S. agencies to undertake a range of activities designed to improve the greenhouse gas intensity levels of large developing countries.

Methane to Markets Partnership

The goal of this action-oriented international initiative is to reduce global methane emissions to enhance economic growth, promote energy security, improve the environment, and reduce greenhouse gases. The partnership initially targets four major methane sources: landfills, underground coal mines, natural gas and oil systems, and livestock waste management. It focuses on the development of strategies and markets for the recovery and use of methane through technology development, demonstration, deployment, and diffusion; implementation of effective policy frameworks; identification of ways and

means to support investment; and removal of barriers to collaborative project development and implementation. Member countries work in collaboration with the private sector, multilateral development banks, and other governmental and nongovernmental organizations (NGOs) to achieve these objectives. The partnership has the potential to deliver by 2015 annual reductions in methane emissions of up to 50 million metric tons of carbon equivalent (MMTCE) or recovery of 500 billion cubic feet of natural gas.⁵

International Partnership for the Hydrogen Economy

The International Partnership for the Hydrogen Economy (IPHE) is committed to accelerating the development of hydrogen and fuel cell technologies to improve their energy, environmental, and economic security. IPHE was established in 2003 as an international institution to accelerate the transition to a hydrogen

⁴ See <<http://www.asiapacificpartnership.org/>>.

⁵ See <www.methanetomarkets.org> and <www.epa.gov/methanetomarkets>.

⁶ See <www.iphe.net>.

economy. Developing and emerging economy country partners include India, the Republic of Korea, Brazil, and China. Hydrogen technology roadmaps have been developed in India and Brazil.⁶

Carbon Sequestration Leadership Forum

An international climate change initiative that includes both developed and developing countries, the Carbon Sequestration Leadership Forum (CSLF) is focused on developing improved and cost-effective technologies for the separation and capture of carbon dioxide and its transport and long-term safe storage. CSLF works to make these technologies broadly available internationally and to identify and address more comprehensive issues, such as regulation, relating to carbon capture and storage. Currently 17 CSLF-endorsed projects are underway to evaluate and demonstrate carbon sequestration technologies.⁷

ITER

ITER is a proposed multilateral collaborative project among the United States, China, the European Union, Japan, Russia, India, and the Republic of Korea to design and demonstrate a fusion energy production system with a goal of commercialization by 2050. The United States is participating in negotiations on the siting, construction, operation, deactivation, and decommissioning of ITER.⁸

Generation IV International Forum

The Generation IV International Forum (GIF) is a multilateral partnership of 10 countries and the European Commission that is fostering international cooperation in research and development (R&D) for the next generation of safer, more affordable, and more proliferation-resistant nuclear energy systems. This new generation of nuclear power plants could produce electricity and hydrogen with substantially less waste and without emitting any air pollutants or GHG emissions. Since GIF's formal establishment in July 2001, the United States has led the development of a technology roadmap and has

increased support for R&D projects carried out in support of GIF's goals.⁹

Global Nuclear Energy Partnership

The Global Nuclear Energy Partnership (GNEP), led in the United States by the U.S. Department of Energy (DOE), is one component of the Advanced Energy Initiative, announced by President Bush in his 2006 State of the Union Address. GNEP has two major goals: (1) expand carbon-free nuclear energy to meet growing electricity demand worldwide, and (2) promote nonproliferation objectives through the leasing of nuclear fuel to countries that agree to forgo enrichment and reprocessing. GNEP partner countries would consist of both fuel supplier nations and reactor nations. Fuel supplier nations would provide reliable nuclear fuel services to reactor nations through an independent nuclear fuel broker, such as the International Atomic Energy Agency.¹⁰

U.S./China Energy and Environmental Technology Center

Located at Beijing's Tsinghua University, the U.S./China Energy and Environmental Technology Center (EETC) was established in 1997 by DOE, the U.S. Environmental Protection Agency (EPA), and China's Ministry of Science and Technology. Jointly operated by Tsinghua University and Tulane University, EETC will assist China with environmental and energy policy development and provide information on technologies and expertise from American industry. EETC projects are meant to be broadly applicable to China's power production infrastructure, focused primarily on clean-coal technologies and technologies for emission reduction, while improving the quality of life in China.¹¹

Clean Energy Technology Export Initiative

Led by DOE, the Clean Energy Technology Export Initiative seeks to increase market access for U.S. exports of cleaner energy technologies, and to improve interagency collaboration and build partnerships with the private sector. The pro-

gram builds on and moves beyond prior R&D and capacity-building efforts to address the market needs of a wide spectrum of U.S. private-sector stakeholders, including relatively sophisticated market participants and new market entrants. The program is focused on activities expected to yield results in the near to mid-term (6 months to 4 years).

U.S. Climate Technology Cooperation Gateway

The U.S. Climate Technology Cooperation (US-CTC) Gateway provides the framework for a range of programs, projects, resources, and actions supported by the U.S. government to promote international technology cooperation to address global climate change. The US-CTC Gateway enables climate technology cooperation stakeholders to work together and highlights U.S.-sponsored activities that have resulted in clear, measurable benefits. The US-CTC Gateway is designed to serve as an on-line resource on specific activities and to provide useful information and resources that can allow users to implement climate-friendly technologies and practices throughout the world.¹²

U.S. Clean Energy Initiative

At the August 2002 World Summit on Sustainable Development (WSSD) in Johannesburg, the United States launched a Clean Energy Initiative consisting of three market-oriented, performance-based partnerships: Efficient Energy for Sustainable Development, led by DOE; the Global Village Energy Partnership, led by USAID; and Partnership for Clean Indoor Air, led by EPA. The Clean Energy Initiative's mission is to bring together governments, international organizations, industry, and civil society in partnerships

⁷ See <www.csforum.org>.

⁸ See <www.iter.org>.

⁹ See <<http://gen-iv.ne.doe.gov/GENIVintl-gif.asp>>.

¹⁰ See <<http://www.gnep.energy.gov/default.html/>>.

¹¹ See <<http://www.tulane.edu/~uschina/intro.html>>.

¹² See <http://www.usaid.gov/our_work/environment/climate/policies_prog/ghg.html>.

to alleviate poverty and spur economic growth in the developing world by modernizing energy services.¹³

Efficient Energy for Sustainable Development

Efficient Energy for Sustainable Development (EESD) aims to improve the productivity and efficiency of energy systems, while reducing pollution and waste, saving money, and improving reliability through less energy-intensive products, more energy-efficient processes, and production modernization. EESD is helping developing economies get ahead of their development curves by focusing on promoting public leadership in the efficient use of clean energy technologies in public facilities, facilitating locally managed financial programs to attract long-term financing for energy efficiency and renewable energy projects, and building capacity in the local private sector to adopt cleaner and more efficient technologies.¹⁴

Global Village Energy Partnership

The Global Village Energy Partnership brings together developing and industrialized country governments, public and private organizations, multilateral institutions, consumers, and others in an effort to ensure low-income families have access to modern energy services. The partnership aims to reduce poverty and enhance economic and social development for millions around the world. Its work will be carried out under a 10-year implementation-based program. The partnership's objectives are to catalyze country commitments to village energy programs; bridge the gap among investors, entrepreneurs, and energy users; facilitate policy and market regulatory frameworks; serve as a marketplace for information and best practices; and create and maintain an effective coordination mechanism.¹⁵

Partnership for Clean Indoor Air

Some three billion people worldwide burn traditional biomass and coal indoors for home cooking and heating. Indoor air pollution from household energy ranks as the fourth leading health risk in develop-

ing countries, with women and children being most significantly affected. The Partnership for Clean Indoor Air was created in response to this challenge. Its more than 120 public and private organizations are contributing their resources and expertise to improve health, livelihoods, and quality of life in Asia, Africa, and Latin America by reducing exposure to indoor air pollution from household energy use. The partnership is focusing on four priority areas: meeting social and cultural needs, developing local markets, improving technology design and performance, and monitoring impacts.¹⁶

EPA Programs for Energy Efficiency

EPA supports several programs that promote energy efficiency in products and buildings.

Energy Efficiency Endorsement Labeling Programs

Drawing on the lessons, experience, information, and tools available from its successful ENERGY STAR program, EPA is working with developing countries (primarily China and India) to enhance their capacity to design and implement their own effective, voluntary energy efficiency endorsement labeling programs. For example, with technical assistance from EPA and other international organizations, the China Standard Certification Center has established a China-specific endorsement label that is now applied to 21 products.¹⁷ It is estimated that by 2014, product labeling will reduce GHG emissions in China by up to 27 MMTCE.

eeBuildings

A second program, eeBuildings, helps building owners, managers, and tenants improve the energy efficiency of their buildings worldwide. eeBuildings forms partnerships with multinational corporations, local businesses and NGOs, government agencies, and other organizations that share eeBuildings' goal of improving energy efficiency to save energy and money. Key elements of eeBuildings are technical resources and training, links to other programs with related goals, and

recognition for implementing or promoting energy efficiency in commercial buildings.¹⁸

Collaborative Labeling and Appliance Standards Program

The Collaborative Labeling and Appliance Standards Program (CLASP) was formed in 1999 as a partnership devoted to promoting best practices in energy efficiency standards and labeling programs in developing and transition countries. CLASP includes the design, implementation, and enforcement of energy efficiency standards and labels for appliances, equipment, and lighting products. Supported by USAID, DOE, and EPA, the partnership includes governments, intergovernmental organizations, industry, NGOs, and technical institutions. CLASP has provided technical support to Argentina, Bahrain, Brazil, Chile, China, Colombia, the Dominican Republic, Ecuador, Egypt, Ghana, India, Mexico, Nepal, Poland, Sri Lanka, Thailand, Tunisia, and Uruguay. It has also supported regional standards and labeling projects in 30 countries. The overall result of energy efficiency standards and labels is to reduce both required investments in power plants and fuel consumption for their operation, with powerful economic gains (e.g., freeing up capital for investments in nonenergy social infrastructure, such as schools, roads, or hospitals) and environmental benefits (e.g., avoiding carbon emissions).¹⁹

Integrated Environmental Strategies Program

EPA's Integrated Environmental Strategies program engages developing countries to build support for integrated planning to address both local environmental concerns and global GHG emissions. The program promotes the analysis

¹³ See <www.sdp.gov>.

¹⁴ See <<http://www.sdp.gov/sdp/initiative/c17707.htm>>.

¹⁵ See <<http://www.gvcp.org/>>.

¹⁶ See <<http://www.epa.gov/iaq/pcia.html> and www.PCIAonline.org>.

¹⁷ See <<http://www.cecp.org.cn/englishhtml/index.asp>>.

¹⁸ See <www.epa.gov/eeBuildings>.

¹⁹ See <<http://www.clasponline>>.

of and local support for implementation of clean energy technology policies and measures, with multiple public health, economic, and environmental benefits. To date, government agencies, research institutions, businesses, and NGOs in Argentina, Brazil, Chile, China, India, Mexico, the Philippines, and the Republic of Korea have participated in the program.²⁰

Central America Greenhouse Gas Inventory Improvement Project

In partnership with the seven nations of Central America, USAID and EPA are carrying out an extensive three-year project to improve the quality and sustainability of national GHG inventories in the region. The project focuses on developing long-term national inventory management systems, improving the methods and data used in the agriculture and the land-use change and forestry sectors, and training regional experts. The project includes experts from the United States, Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama.²¹

International Renewable Energy Program

The mission of the International Renewable Energy Program (IREP) is to promote international capacity building in support of market-focused transfer of clean energy technology. Application of DOE's world-class technical expertise contributes to U.S. goals for sustainable development and improved trade, security, climate, and environment. IREP activities are focused on capacity building in support of optimal use of energy efficiency and renewable energy technologies, and market and trade development to enhance commercialization of these technologies. To address these needs, IREP provides technical assistance, disseminates information, and conducts trade missions and reverse trade missions.²²

United States–Asia Environmental Partnership

Since 1992, the United States–Asia Environmental Partnership (US–AEP) has

been USAID's primary program in Asia supporting efforts to improve environmental conditions in selected Asian countries. US–AEP has developed valuable partnerships, strengthened the capacities of Asian environmental institutions, addressed the challenges of urbanization and industrialization, and promoted sustainable economic growth to improve the environment and quality of life for the people of Asia. After more than a decade of accomplishments, US–AEP formally concluded on September 30, 2005.

A new USAID regional environmental program was launched in October 2005. This new program continues and extends US–AEP's support of a number of activities promoting regional environmental initiatives, such as the Asian Environmental Compliance and Enforcement Network, ASEAN Sustainable Cities Initiative, and Southeast Asia Water Utilities Network.²³

Climate Technology Initiative

The Climate Technology Initiative (CTI) is a multilateral cooperative activity that supports implementation of the UNFCCC by fostering international cooperation for accelerated development and diffusion of climate-friendly technologies and practices. CTI was originally established at the first Conference of the Parties to the UNFCCC in 1995. Since July 2003, CTI has been operating under an implementing agreement of the International Energy Agency that includes the United States, Austria, Canada, Denmark, Finland, Germany, Japan, Norway, and the United Kingdom. Through a variety of capacity-building activities, CTI has promoted meaningful technology transfer to and among developing and transition countries. In addition to their current and future environmental benefits, these efforts are promoting near- and long-term global economic and social stability.²⁴

Renewable Energy and Energy Efficiency Partnership

Formed at the WSSD in Johannesburg, the United Kingdom-led Renewable En-

ergy and Energy Efficiency Partnership (REEEP) seeks to accelerate and expand the global market for renewable energy and energy efficiency technologies. As the world's largest producer and consumer of renewable energy, and with more renewable energy generation capacity than Germany, Denmark, Sweden, France, Italy, and the United Kingdom combined, the United States is one of 17 partners in REEEP. The United States also actively participated in Germany's Renewables 2004 conference in June 2004, and submitted five action items intended to provide specific technology plans and cost targets for renewable energy technologies using solar, biomass, wind, and geothermal resources.²⁵

FOREST CONSERVATION PARTNERSHIPS

Tropical Forest Conservation Act

The Tropical Forest Conservation Act (TFCA) was enacted in 1998 to offer eligible developing countries options to relieve certain official debt owed to the United States, while at the same time to generate funds to support local tropical forest conservation activities. As of June 2006, TFCA programs are being implemented in Bangladesh, Belize, Colombia, El Salvador, Jamaica, Panama (two agreements), Paraguay, Peru, and the Philippines, and agreements for two additional countries are being negotiated. The 12 agreements completed to date will directly generate more than \$135 million for tropical forest conservation in these countries over the life of the agreements, and additional resources will be created through returns on investments and matching funds.

²⁰ See <www.epa.gov/IES>.

²¹ See <http://www.usaid.gov/our_work/environment/climate/country_nar/gcap_profile.html>.

²² See <www.eere.energy.gov/wip/program/international.html>.

²³ See <<http://www.usaep.org/transition.html>> and <http://www.usaid.gov/locations/asia_near_east/counties/rdma/>.

²⁴ See <<http://www.climate4tech.net/>>.

²⁵ See <www.reEEP.org>.

A number of other countries have qualified for or expressed interest in the TFCA program, and agreements beyond those mentioned here are anticipated as the program continues to expand. In addition to forest conservation and debt relief, TFCA is intended to strengthen civil society by creating local foundations to support small grants to NGOs and communities. The program also offers a unique opportunity for public–private partnerships. Six of the agreements to date have included more than \$7 million in cash raised by U.S.-based NGOs, in addition to the approximately \$60 million in appropriated debt-reduction funds contributed by the U.S. government.²⁶

President’s Initiative Against Illegal Logging

On July 28, 2003, Secretary of State Powell launched the President’s Initiative Against Illegal Logging to assist developing countries in combating illegal logging, including the sale and export of illegally harvested timber, and in fighting corruption in the forest sector. The initiative represents the most comprehensive strategy undertaken by any nation to address this critical sustainable development challenge, and reinforces the U.S. leadership role in taking action to counter the problem and preserve forest resources that store carbon. The initiative focuses on three critical regions—the Congo Basin, the Amazon Basin and Central America, and South and Southeast Asia—and four key strategies: good governance, community-based actions, technology transfer, and harnessing market forces.²⁷

Congo Basin Forest Partnership

The Congo Basin Forest Partnership (CBFP) studies and implements sustain-

able natural resource management within the Congo Basin. Announced by Secretary Powell at the WSSD in Johannesburg in 2002, CBFP builds on USAID’s Central African Regional Program for the Environment. The U.S. goal in this partnership is to promote economic development, poverty alleviation, improved governance, and natural resource conservation through support for a network of national parks and protected areas, well-managed forestry concessions, and assistance to communities that depend upon the conservation of the outstanding forest and wildlife resources of 11 key landscapes in 6 Central African countries. The climate change impacts of the CBFP include increased carbon sequestration and reduced GHG emissions through preservation of the forest biomass.²⁸

Amazon Basin Conservation Initiative

The Amazon Basin Conservation Initiative (ABCI) is a new regional conservation program to support the national governments and civil societies of the Amazon in their efforts to conserve the Amazon Basin’s unique and globally important resources. ABCI is the second in a series of initiatives designed to address the shared responsibility of the United States for the stewardship of globally important biodiversity. Over the next five years, USAID plans to make an initial investment of \$50 million to support community groups, governments, and public and private organizations in their efforts to conserve the Amazon’s globally important biodiversity. This investment will be in addition to the current portfolio of conservation efforts supported by USAID in the region.²⁹

U.S.-SPONSORED ACTIVITIES ADDRESSING VULNERABILITY AND ADAPTATION

The United States has undertaken a broad range of activities to assist countries to develop flexible and resilient societies and economies that have the capacity to address both the challenges and the opportunities presented by changing climatic

conditions. The United States was one of the first nations to assist developing countries to build core capacity to undertake vulnerability assessments through its Country Studies Program (CSP).³⁰ Between 1994 and 2001, the CSP helped 56 countries build the human and institutional capacities necessary to assess their vulnerability to climate change. Subsequent activities have built off those efforts, with the goal of furthering knowledge gained through the assessments and mobilizing adaptation actions. This section describes some of the wide-ranging adaptation activities the United States is pursuing.

Building Resilience Through Development Assistance

USAID has broadened its climate change portfolio to include activities aimed at strengthening the capabilities of developing and transition countries to respond to the challenges posed by climate-related impacts and risks. These activities include sustainable forestry and support for agricultural research for stress-resistant crops. USAID seeks to strengthen the capabilities of program managers, host-country institutions, project implementers, and sectoral experts to assess relative vulnerabilities and to evaluate and implement adaptation options for agriculture, water, and coastal zone management projects within USAID’s development assistance portfolio. Pilot projects to identify adaptation options are underway in South Africa, Honduras, Mali, and Thailand. Lessons learned from the pilot projects will be incorporated into a guidance manual on adaptation activities for development projects.³¹

Regional Climate Outlook Forums

The National Oceanic and Atmospheric Administration (NOAA) and USAID jointly fund Regional Climate Outlook Forums. These forums have become a principal vehicle for providing advance information about the likely character of seasonal climate in several developing regions. They bring together climate forecasters and forecast users

²⁶ See <http://www.usaid.gov/our_work/environment/forestry/tfca.html>.

²⁷ See <<http://www.state.gov/r/pa/prs/ps/2003/22843.htm>>.

²⁸ See <http://www.usaid.gov/locations/sub-saharan_africa/initiatives/cbfp.html>.

²⁹ See <http://www.usaid.gov/locations/latin_america_caribbean/environment/abci.html>.

³⁰ See <www.gcrio.org/CSP/webpage.html>.

³¹ See <http://www.usaid.gov/our_work/environment/climate/index.html>.

to develop a consensus forecast from multiple predictions and to discuss methods of dissemination and application of information. They provide a unique opportunity for stakeholders to meet, share information and concerns, and forge an informal network to address common problems.

The Hermosillo Project: Vulnerability and Adaptation Support for Mexico

EPA and Mexico's National Institute of Ecology initiated the Hermosillo Project to integrate consideration of climatic risks into the city's policy formation process, with support from USAID. The overarching goals of the project were to identify and evaluate options for adapting to climate stresses on water resources in northern Mexico, work with stakeholders to prioritize these options, and begin a process for evaluating such options for other cities in Mexico and the Americas. Stakeholder involvement in design and implementation, close institutional collaboration at various levels, and coordination of adaptation proposals with local policy priorities were important features of the project.

Famine Early Warning System Network

USAID, the National Aeronautics and Space Administration (NASA), the U.S. Geological Survey (USGS), the U.S. Department of Agriculture (USDA), and NOAA are collaborating with local, regional, and international partners to provide early-warning and vulnerability information on emerging or evolving food security issues, including information relating to variability and changes in regional climate conditions. A primary goal of the Famine Early Warning System Network (FEWS NET) program is to produce high-quality information for disaster and crisis prediction. FEWS NET provides demand-driven information products that pinpoint and assess emerging or evolving food security problems. Program professionals in the United States and Africa monitor data and information—including remotely sensed as well as ground-based

data on meteorological, crop, and rangeland conditions—for early indications of potential threats to food security. The program also works to strengthen African early-warning and response networks by increasing local technical capacity, building and strengthening networks, developing policy-relevant information, and forming consensus about food security problems and solutions.³²

RANET Program

USAID and NOAA are working with a range of humanitarian and meteorological organizations to provide useful weather and climate information to rural communities. The RANET program (Radio and Internet for the Communication of Hydro-Meteorological and Climate-Related Information for Development) uses reserve capacity on the WorldSpace digital satellite system to transmit forecasts, bulletins, imagery, seasonal assessments, and data to remote areas. The goal of the program is to provide environmental information that assists governments and populations in coping with hydro-meteorological hazards and environmental fluctuations. RANET also supports the formation of community groups and associations that are instrumental in disseminating information and extending the network to new communities. The program operates in Africa, South and Southeast Asia, and the Western Pacific.³³

U.S. FINANCIAL AND TECHNICAL ASSISTANCE

U.S. government agencies provide trade and development financing to developing and transition countries. They facilitate the transfer of climate-friendly technologies by providing official assistance, export credits, project financing, risk guarantees, and insurance to U.S. companies, as well as credit enhancements for host-country financial institutions. Trade and development financing leverages foreign direct investment, foreign private equity investment, and host-country and non-U.S. private capital by decreasing the risk involved

in long-term capital-intensive projects and projects in nontraditional sectors.

U.S. Agency for International Development

The Bush Administration's climate change policy states that USAID "serves as a primary vehicle for transferring American energy and sequestration technologies to developing countries to promote sustainable development and minimize their greenhouse gas emissions growth." USAID's foreign assistance and development role is key to the involvement of developing countries in resolving climate change issues, as climate change is a global problem that requires action by all. Meeting the future economic and energy needs of developing countries will require developing and transferring the technologies and expertise necessary to reduce the GHG emissions and natural resource demands of current technologies.³⁴

U.S. Environmental Protection Agency

A global leader in methane mitigation and energy efficiency promotion, EPA spearheaded the Methane to Markets Partnership, which focuses on cost-effective, near-term methane recovery and use as a clean energy source. EPA supports the international Collaborative Labeling and Appliance Standards Program, as well as several bilateral programs that encourage energy efficiency. EPA designs and implements innovative programs on a variety of global environmental challenges, including efforts to make transportation cleaner, reduce GHG emissions, and improve local air quality. EPA also works with developing countries on 14 climate change bilaterals.³⁵

U.S. Department of Energy

In addition to providing funding support for such interagency activities as the Climate Change Technology Program and

³² See <www.fews.net>.

³³ See <<http://www.ranetproject.net/>>.

³⁴ See <www.usaid.gov>.

³⁵ See <<http://www.epa.gov/>>.

the Climate Change Science Program, DOE works directly with foreign governments and institutions to promote dissemination of energy efficiency, renewable energy, and clean energy technologies and practices. Since the 2002 CAR, DOE has launched major international initiatives in key technology areas, including hydrogen, carbon sequestration, and next-generation nuclear power, that involve industrialized, emerging, and developing economies. DOE's International Renewable Energy Program works with foreign governments, industry, and NGOs to help them implement viable activities that address climate change, transportation needs, local air quality, and related health risks. DOE also works with developing countries through 14 climate change bilateral collaborations and participates in market development efforts for clean energy technologies through the Energy Efficiency for Sustainable Development program and the United Kingdom-led Renewable Energy and Energy Efficiency Partnership, both of which are WSSD partnerships.³⁶

U.S. Department of State

The U.S. Department of State (DOS) serves as a coordinating agency for transferring technology and providing financial resources to developing countries. DOS has implemented bilateral climate change partnerships with a number of developing countries, which enable DOS to coordinate, monitor, and facilitate both joint projects and assistance to U.S. partners.³⁷

U.S. Department of Agriculture

Through its participation in a variety of bilateral agreements, multilateral agreements, and international partnerships, USDA provides technical and financial assistance to help countries carry out a wide set of agriculture- and forest-sector activities that support their efforts to mitigate or adapt to the impacts of climate change. These activities include developing methods and protocols for measuring GHG emissions from agricultural sources, developing methods and protocols to estimate carbon fluxes from forest and agricultural

systems, designing and implementing agriculture- and forest-sector components of national GHG inventories, reducing GHG emissions through improved agricultural practices, increasing carbon sequestration through improved forest management (including forest conservation, sustainable forestry, and agroforestry), and encouraging sustainable and renewable bioenergy technology and use.³⁸

National Oceanic and Atmospheric Administration

NOAA provides weather, water, and climate services; manages and protects fisheries and sensitive marine ecosystems; conducts atmospheric, climate, and ecosystem research; promotes efficient and environmentally safe commerce and transportation; supports emergency response; and provides vital information in support of homeland security. NOAA's climate mission is to: "Understand and describe climate variability and change to enhance society's ability to plan and respond." NOAA's long-term climate efforts are designed to develop a predictive understanding of variability and change in the global climate system, and to advance the application of this information in climate-sensitive sectors through a suite of process research, observations and modeling, and application and assessment activities.³⁹

National Aeronautics and Space Administration

NASA advances scientific knowledge by observing the Earth system from space; assimilating new observations into climate, weather, and other Earth system models; and developing new technologies, systems, and capabilities for its observations, including those with the potential to improve future operational systems managed by NOAA and others. NASA is a major participant in the U.S. Climate Change Science Program and in U.S. activities to support the GEO. NASA's Earth observation data are openly available to all nations, organizations, and individuals, and the Agency has many active partner-

ships with U.S. and international agencies to facilitate the use of its data in research and operational applications.⁴⁰

U.S. Department of Commerce

The U.S. Department of Commerce recently established an International Clean Energy Initiative that links U.S. companies with foreign markets to facilitate dissemination of clean energy technologies, products, and services. The initiative seeks to realize a vision for enhanced exports of clean energy technology.⁴¹

TRADE AND DEVELOPMENT FINANCING

U.S. government agencies provide trade and development financing to developing and transition countries. These agencies facilitate the transfer of technologies by providing official assistance, export credits, project financing, risk and loan guarantees, and investment insurance to U.S. companies, as well as credit enhancements for host-country financial institutions. These activities help leverage direct investment by decreasing risks associated with long-term, capital-intensive projects or projects in nontraditional sectors. Several agencies engage in this type of financing, including activities that promote climate change objectives.

Overseas Private Investment Corporation

The Overseas Private Investment Corporation's (OPIC's) core mission is to support economic development by promoting U.S. private investment in developing countries and transition economies. OPIC provides project financing, political risk insurance, and investment guarantees for U.S. company projects covering a range of investments, including many independent power projects in developing countries.

³⁶ See <www.energy.gov> and <www.iisd.ca/wssd/partnerships.html>.

³⁷ See <www.state.gov>.

³⁸ See <www.usda.gov>.

³⁹ See <www.noaa.gov>.

⁴⁰ See <www.nasa.gov>.

⁴¹ See <www.commerce.gov>.

OPIC also supports a variety of funds that make direct equity and equity-related investments in new, expanding, and privatizing companies in emerging market economies. OPIC evaluates all project applications on the basis of their contribution to economic development to ensure the successful implementation of the organization's core developmental mission, and prioritizes the allocation of scarce resources to projects on the basis of their developmental benefits.⁴²

Export-Import Bank

The Export-Import Bank (Ex-Im), the export credit agency of the United States, provides financial support to exporters of U.S. equipment and services through its insurance, working capital, and loan guarantee programs. Ex-Im also features an Environmental Exports Program (EEP) that provides enhanced financial support for renewable energy and other environmentally beneficial exports. Under the EEP, Ex-Im provides special support for exports of air, water, and soil pollution cleanup; ecological and forestry management; renewable and alternative energy projects, including photovoltaic, wind, biomass, fuel cells, waste to energy, hydroelectric, clean coal, and geothermal projects; products to measure or monitor air or water quality; equipment to reduce emissions or effluents; environmental impact assessments and ecological studies; environmental training services; and products designed to improve energy efficiency.

Ex-Im also offers foreign buyers extended repayment terms of up to 15 years to cover the purchase of U.S. goods and services for renewable energy projects. This special support is available for exports to wind energy, geothermal energy, tidal, wave power, solar photovoltaic, solar thermal, ocean thermal, sustainable biomass, and certain bioenergy projects. In fiscal year 2006, Ex-Im authorized approximately \$9.8 million in loan guarantees, insurance, and working capital guarantees to support U.S. renewable energy exports to various foreign countries.⁴³

USAID Development Credit Authority

The Development Credit Authority (DCA) is a broad financing authority that allows USAID to use credit to pursue any of the development purposes specified under the Foreign Assistance Act of 1961, as amended. DCA seeks to provide USAID the flexibility to make more rational choices about appropriate financing tools used in project development, including individual or combined loans, guarantees, and grants. DCA activities are designed and managed by USAID's overseas missions. Credit projects offer several distinct and attractive advantages over other forms of assistance, and leverage and maximize USAID resources by providing access to local private capital, sharing risk to encourage lending, mobilizing local private capital, and enhancing "the demonstration effect."⁴⁴ For example, USAID is providing an Indian bank a 10-year, \$20 million loan portfolio guarantee to facilitate financing of small-scale renewable energy, energy efficiency, and water conservation projects by small and medium enterprises. This assistance will increase energy access and reduce GHG intensity.

USAID Global Development Alliance

USAID's Global Development Alliance (GDA) business model links U.S. foreign assistance with the resources, expertise, and creativity of governments, business, and civil society. Through public-private partnerships, USAID and its partners combine their assets to address pressing development problems, achieving a solution that would not be possible for any individual partner alone. Through fiscal year 2005, USAID funded 400 alliances, with \$1.4 billion of USAID funding leveraging \$4.6 billion from partners. To provide an alternative to traditional grants and contracts for nontraditional partners,⁴⁵ USAID created a new obligating instrument—the collaborative agreement—that became operational in fiscal year 2005.⁴⁶ For example, USAID and General Electric have launched a GDA to pilot commercially viable rural electrification in India using renewable energy systems, thus in-

creasing energy access and economic growth while reducing the growth of GHG emissions.

U.S. Trade and Development Agency

The U.S. Trade and Development Agency (USTDA) is a foreign assistance agency that delivers its program commitments through overseas grants, contracts with U.S. firms, and the use of trust funds at several multilateral development bank groups. The projects supported by USTDA activities represent strong and measurable development priorities in host countries and offer opportunities for commercial participation by U.S. firms. Public- and private-sector project sponsors in developing and middle-income countries request USTDA support to assist them in implementing their development priorities. USTDA's program is designed to help countries establish a favorable trading environment and a modern infrastructure that promotes sustainable economic development. To this end, the agency funds overseas project sponsor access to U.S. private-sector expertise in the areas of (1) trade capacity building and sector development, and (2) project definition and investment analysis. As a priority, USTDA facilitates development in emerging markets by promoting U.S. partnerships in high-priority overseas projects. USTDA has promoted the transfer of climate-friendly technology in the energy, environment, and water resources sectors.⁴⁷

⁴² See <www.opic.gov>.

⁴³ See <www.exim.gov>.

⁴⁴ Demonstration effects are effects on the behavior of individuals caused by observation of the actions of others and their consequences. The term is particularly used in political science and sociology to describe the fact that developments in one place will often act as a catalyst in another place. See <http://www.usaid.gov/our_work/economic_growth_and_trade/development_credit/index.html>.

⁴⁵ Nontraditional partners include private industry, local partners, and faith-based organizations that are outside the typical set of contractors and NGOs.

⁴⁶ See <http://www.usaid.gov/our_work/global_partnerships/gda/>.

⁴⁷ See <<http://www.tda.gov/>>.

PRIVATE-SECTOR ASSISTANCE

Private-sector participation is critical to the successful transfer of much-needed technical know-how and technologies to most regions of the world. Because the private sector finances, produces, and supplies most climate-friendly technologies, it can provide much of the human and financial capital for effective deployment of these technologies. U.S. government agen-

cies, foundations, NGOs, and businesses each have a different role to play in promoting climate technology transfer to developing and transition countries.

Foreign direct investment (FDI) and commercial lending together represent the primary investment vehicle for long-term, private-sector technology transfer. Along with financial capital, these vehicles also bring other assets vital to production, in-

cluding technology, knowledge, and skills. It is estimated that U.S. FDI comprises the vast majority of funding going to climate change and related activities in developing and transition countries. However, because most information relating to financing and implementation of private-sector projects is proprietary, very little FDI is reported in Table 7-4.

TABLE 7-4 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/ REGION | MITIGATION | | | | | | | | | | ADAPTATION | | | | | | TOTALS | | | |
|---------------------------|------------|-----------|-----------|-----------|----------|--------|-------------|----------|------------------|----------|------------|-----------|-------------------|------|-------------------------|------|-----------------------------|------|------------|------------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | 2001 | 2004 |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 |
| WORLD | 13,816.37 | 15,878.76 | 38,711.78 | 39,020.63 | 65.73 | 142.78 | 7,439.71 | 8,538.75 | 0.03 | 8,538.75 | 71,752.57 | 72,778.24 | 0.00 | 0.14 | 0.00 | 0.02 | 0.65 | 5.98 | 131,786.85 | 136,365.30 |
| Africa | 205.40 | 233.16 | 1,931.55 | 1,722.01 | 20.91 | 48.84 | 994.46 | 1,506.44 | 0.00 | 1,506.44 | 891.83 | 1,090.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 4,044.15 | 4,601.68 |
| Africa Regional | 0.93 | 0.13 | 0.00 | 0.00 | 3.95 | 0.00 | 21.26 | 3.57 | 0.00 | 3.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 26.14 | 3.70 |
| Angola | 8.09 | 7.49 | 19.62 | 25.85 | 0.00 | 0.00 | 153.26 | 352.03 | 0.00 | 352.03 | 21.79 | 43.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 202.76 | 428.77 |
| Benin | 2.34 | 0.08 | 1.47 | 24.48 | 0.00 | 0.00 | 0.82 | 2.07 | 0.00 | 2.07 | 6.69 | 1.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.31 | 28.36 |
| Botswana | 0.72 | 0.62 | 16.81 | 5.70 | 0.00 | 0.00 | 0.05 | 0.01 | 0.00 | 0.01 | 2.65 | 15.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.23 | 22.04 |
| Burkina Faso | 0.32 | 0.08 | 0.17 | 1.66 | 0.00 | 0.00 | 0.16 | 9.96 | 0.00 | 9.96 | 0.50 | 1.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.14 | 13.49 |
| Burundi | 0.01 | 0.00 | 0.91 | 4.11 | 0.00 | 0.00 | 0.03 | 1.74 | 0.00 | 1.74 | 0.49 | 2.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.43 | 8.48 |
| Cameroon | 1.66 | 1.63 | 111.04 | 3.90 | 0.00 | 0.00 | 32.27 | 39.96 | 0.00 | 39.96 | 13.81 | 7.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 158.78 | 53.11 |
| Cape Verde | 0.18 | 0.09 | 5.55 | 46.50 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.05 | 0.21 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 46.82 |
| Central African Rep. | 0.12 | 0.09 | 0.28 | 5.72 | 0.00 | 17.03 | 0.49 | 8.55 | 0.00 | 8.55 | 1.60 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.49 | 32.17 |
| Chad | 2.44 | 0.22 | 9.87 | 0.90 | 0.00 | 0.00 | 61.63 | 30.58 | 0.00 | 30.58 | 16.67 | 1.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 90.61 | 33.56 |
| Comoros | 0.00 | 0.00 | 0.03 | 0.04 | 0.00 | 0.00 | 0.16 | 0.53 | 0.00 | 0.53 | 0.95 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 | 0.62 |
| Congo (DROC) | 0.30 | 2.56 | 0.22 | 1.25 | 0.00 | 1.52 | 3.42 | 3.20 | 0.00 | 3.20 | 1.99 | 7.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.94 | 15.80 |
| Congo (ROC) | 6.63 | 1.25 | 0.88 | 4.61 | 0.00 | 0.00 | 31.67 | 28.43 | 0.00 | 28.43 | 8.08 | 4.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 47.26 | 38.57 |
| Cote d'Ivoire | 3.30 | 2.18 | 3.09 | 9.22 | 0.00 | 0.00 | 18.01 | 12.42 | 0.00 | 12.42 | 12.69 | 17.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.10 | 41.35 |
| Djibouti | 0.16 | 0.39 | 0.30 | 1.09 | 0.00 | 0.00 | 4.47 | 5.13 | 0.00 | 5.13 | 0.81 | 2.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.73 | 8.77 |
| East Africa Regional | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Equatorial Guinea | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Eritrea | 0.06 | 0.07 | 0.81 | 0.83 | 0.00 | 0.00 | 4.06 | 0.73 | 0.00 | 0.73 | 1.64 | 1.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.56 | 3.08 |
| Ethiopia | 0.22 | 0.96 | 4.36 | 305.99 | 0.05 | 0.00 | 9.13 | 23.79 | 0.00 | 23.79 | 3.94 | 9.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.70 | 340.30 |
| Gabon | 0.82 | 2.15 | 2.46 | 2.80 | 0.00 | 0.00 | 44.93 | 30.78 | 0.00 | 30.78 | 5.89 | 32.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 54.10 | 67.92 |
| Gambia | 0.08 | 0.17 | 0.64 | 2.24 | 0.00 | 0.00 | 0.01 | 0.10 | 0.00 | 0.10 | 1.54 | 1.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.26 | 3.95 |
| Ghana | 4.36 | 8.39 | 25.19 | 26.71 | 0.00 | 0.90 | 25.05 | 60.97 | 0.00 | 60.97 | 22.93 | 37.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.53 | 134.46 |
| Guinea | 0.54 | 0.68 | 4.82 | 5.03 | 0.00 | 3.77 | 13.78 | 10.84 | 0.00 | 10.84 | 6.48 | 4.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.63 | 25.14 |

TABLE 7-4 (Continued) 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/ REGION | MITIGATION | | | | | | | | | | ADAPTATION | | | | TOTALS | | | | | |
|---------------------------|------------|-------|-----------|--------|----------|------|-------------|--------|------------------|--------|------------|--------|-------------------|------|-------------------------|------|-----------------------------|------|----------|----------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | | |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | | |
| Guinea-Bissau | 0.00 | 0.07 | 0.02 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 0.88 |
| Kenya | 3.44 | 2.98 | 441.84 | 216.51 | 2.20 | 2.72 | 10.65 | 9.81 | 0.00 | 9.81 | 27.11 | 31.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 485.23 | 264.01 |
| Lesotho | 0.02 | 1.25 | 0.35 | 0.10 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.03 | 0.35 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.72 | 1.44 |
| Liberia | 0.28 | 0.58 | 2.23 | 8.00 | 0.00 | 0.00 | 4.38 | 2.22 | 0.00 | 2.22 | 2.16 | 9.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.05 | 19.91 |
| Madagascar | 0.21 | 0.45 | 5.20 | 4.64 | 8.68 | 8.23 | 0.50 | 3.04 | 0.00 | 3.04 | 4.81 | 2.60 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.41 | 18.95 |
| Malawi | 2.08 | 0.20 | 2.19 | 0.35 | 0.00 | 2.90 | 4.49 | 4.38 | 0.00 | 4.38 | 1.16 | 3.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 9.92 | 10.89 |
| Mali | 1.08 | 0.50 | 1.59 | 4.22 | 0.00 | 0.10 | 8.00 | 13.49 | 0.00 | 13.49 | 7.27 | 6.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 17.94 | 26.15 |
| Mauritania | 1.63 | 1.48 | 0.23 | 45.19 | 0.00 | 0.00 | 15.31 | 15.53 | 0.00 | 15.53 | 3.40 | 2.95 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.57 | 65.15 |
| Mauritius | 1.01 | 0.92 | 7.05 | 2.81 | 0.00 | 0.00 | 1.33 | 1.63 | 0.00 | 1.63 | 4.06 | 5.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.45 | 10.81 |
| Mozambique | 0.39 | 2.07 | 1.18 | 3.44 | 0.00 | 0.10 | 12.70 | 21.01 | 0.00 | 21.01 | 1.60 | 3.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.87 | 30.28 |
| Namibia | 0.97 | 0.73 | 175.92 | 3.84 | 0.00 | 1.92 | 1.63 | 1.44 | 0.00 | 1.44 | 10.87 | 3.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 189.39 | 11.16 |
| Niger | 5.81 | 0.38 | 5.73 | 4.22 | 0.00 | 0.00 | 207.92 | 391.95 | 0.00 | 391.95 | 15.40 | 7.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 234.86 | 403.79 |
| Nigeria | 59.69 | 77.65 | 77.36 | 140.36 | 0.00 | 0.90 | 7.17 | 4.07 | 0.00 | 4.07 | 162.34 | 215.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 306.55 | 438.11 |
| Rwanda | 0.15 | 0.00 | 0.46 | 0.00 | 0.00 | 0.00 | 3.88 | 2.06 | 0.00 | 2.06 | 6.50 | 2.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.99 | 4.18 |
| Sahel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Senegal | 2.49 | 1.57 | 6.38 | 9.45 | 0.00 | 1.00 | 16.10 | 9.28 | 0.00 | 9.28 | 11.52 | 10.91 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 36.50 | 32.21 |
| Sierra Leone | 0.31 | 0.95 | 0.64 | 3.30 | 0.00 | 0.00 | 1.63 | 1.40 | 0.00 | 1.40 | 3.57 | 8.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.15 | 13.90 |
| Somalia | 0.03 | 0.02 | 0.64 | 0.07 | 0.00 | 0.00 | 0.00 | 0.62 | 0.00 | 0.62 | 0.66 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.33 | 1.03 |
| South Africa | 89.45 | 96.66 | 976.33 | 727.72 | 0.00 | 0.00 | 241.83 | 334.15 | 0.00 | 334.15 | 465.97 | 558.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,773.59 | 1,717.11 |
| Southern Africa Regional | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sudan | 0.00 | 0.00 | 0.01 | 1.58 | 0.00 | 0.00 | 0.00 | 24.30 | 0.00 | 24.30 | 0.15 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 25.96 |
| Swaziland | 0.14 | 0.12 | 1.02 | 1.22 | 0.00 | 0.00 | 0.03 | 0.23 | 0.00 | 0.23 | 2.37 | 1.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.56 | 3.12 |
| Tanzania | 0.57 | 13.82 | 4.33 | 55.13 | 1.55 | 2.50 | 14.67 | 8.27 | 0.00 | 8.27 | 7.85 | 10.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 28.97 | 90.30 |
| Uganda | 0.55 | 0.73 | 2.32 | 2.98 | 4.38 | 4.40 | 6.45 | 14.35 | 0.00 | 14.35 | 9.71 | 6.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 23.40 | 29.05 |
| West Africa Regional | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.56 | 5.85 | 0.00 | 5.85 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.56 | 5.85 |
| Zambia | 1.06 | 0.18 | 1.91 | 1.84 | 0.10 | 0.86 | 6.25 | 10.06 | 0.00 | 10.06 | 3.92 | 5.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 13.25 | 18.54 |

TABLE 7-4 (Continued) 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/REGION | MITIGATION | | | | | | | | | | ADAPTATION | | | | TOTALS | | | | | |
|--------------------------------|-----------------|-----------------|------------------|------------------|-------------|--------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|-------------------|-------------|-------------------------|-------------|-----------------------------|-------------|------------------|------------------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | | |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | | |
| Zimbabwe | 0.78 | 0.63 | 8.10 | 6.02 | 0.00 | 0.00 | 0.00 | 1.82 | 0.00 | 1.82 | 7.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 18.64 | 8.47 |
| Asia/Near East | 3,285.36 | 4,477.77 | 13,958.94 | 14,680.32 | 6.48 | 26.67 | 2,036.64 | 2,073.39 | 0.01 | 2,073.39 | 35,179.93 | 41,285.41 | 0.00 | 0.13 | 0.00 | 0.00 | 0.20 | 0.13 | 54,467.56 | 62,543.81 |
| Afghanistan | 0.00 | 80.78 | 0.00 | 23.70 | 0.00 | 4.00 | 0.00 | 50.39 | 0.00 | 50.39 | 0.51 | 46.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.51 | 205.03 |
| Algeria | 25.00 | 95.58 | 397.21 | 168.16 | 0.00 | 0.00 | 115.02 | 132.61 | 0.00 | 132.61 | 170.34 | 159.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 707.57 | 555.39 |
| Asia/Near East Regional | 1.30 | 0.15 | 0.00 | 0.05 | 0.00 | 2.14 | 1.70 | 0.35 | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.00 | 2.69 |
| Bahrain | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bangladesh | 22.33 | 43.74 | 16.01 | 20.33 | 0.60 | 2.50 | 6.29 | 11.46 | 0.00 | 11.46 | 43.37 | 35.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 88.60 | 113.30 |
| Bhutan | 0.12 | 0.20 | 0.04 | 0.10 | 0.00 | 0.00 | 0.01 | 0.51 | 0.00 | 0.51 | 0.09 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.95 |
| Brunei | 13.74 | 8.77 | 10.24 | 14.69 | 0.00 | 0.00 | 4.96 | 7.30 | 0.00 | 7.30 | 46.28 | 7.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 75.22 | 38.69 |
| Burma (Myanmar) | 0.39 | 2.23 | 0.65 | 0.72 | 0.00 | 0.00 | 1.71 | 2.60 | 0.00 | 2.60 | 3.50 | 0.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.25 | 6.05 |
| Cambodia | 26.64 | 28.49 | 8.88 | 29.42 | 0.00 | 0.00 | 0.02 | 1.36 | 0.00 | 1.36 | 2.93 | 2.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 38.48 | 62.02 |
| China | 707.62 | 1,385.08 | 3,656.58 | 4,527.54 | 0.01 | 0.13 | 323.87 | 638.88 | 0.01 | 638.88 | 5,704.12 | 8,887.15 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.03 | 10,392.20 | 15,438.94 |
| East Timor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.07 | 0.00 |
| Egypt | 120.57 | 98.35 | 1,195.46 | 626.56 | 0.00 | 0.00 | 200.69 | 220.39 | 0.00 | 220.39 | 463.89 | 525.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,980.60 | 1,470.98 |
| Federated States of Micronesia | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fiji | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| French Polynesia | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hong Kong | 490.18 | 596.03 | 988.59 | 916.89 | 0.00 | 0.00 | 78.52 | 103.54 | 0.00 | 103.54 | 4,713.60 | 4,822.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6,270.90 | 6,438.46 |
| India | 179.40 | 297.86 | 706.27 | 799.33 | 0.00 | 0.08 | 84.77 | 156.05 | 0.00 | 156.05 | 870.49 | 1,374.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.04 | 1,841.13 | 2,627.98 |
| Indonesia | 59.86 | 70.80 | 176.26 | 170.12 | 4.00 | 8.50 | 190.45 | 217.43 | 0.00 | 217.43 | 349.91 | 328.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 780.48 | 795.08 |
| Iraq | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.35 | 0.00 | 11.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.35 |
| Jordan | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.47 | 13.23 | 0.00 | 13.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.56 | 13.23 |
| Kiribati | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Korea (ROK) | 874.02 | 1,057.41 | 4,082.59 | 3,761.65 | 0.01 | 0.00 | 111.56 | 193.37 | 0.01 | 193.37 | 9,064.26 | 10,407.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14,132.44 | 15,420.23 |
| Laos | 73.25 | 68.67 | 0.00 | 0.67 | 0.00 | 0.00 | 0.30 | 0.05 | 0.00 | 0.05 | 210.67 | 309.81 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 284.22 | 379.20 |

TABLE 7-4 (Continued) 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/REGION | MITIGATION | | | | | | | | | | ADAPTATION | | | | TOTALS | | | | | |
|---------------------------|---------------|---------------|---------------|-----------------|-------------|-------------|---------------|---------------|------------------|---------------|---------------|-----------------|-------------------|-------------|-------------------------|-------------|-----------------------------|-------------|-----------------|-----------------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | | |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | | |
| Thailand | 188.44 | 177.17 | 853.95 | 552.48 | 0.00 | 0.00 | 56.82 | 96.92 | 0.00 | 96.92 | 2,599.11 | 2,589.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3,698.31 | 3,416.44 |
| Tokelau Islands | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Tunisia | 13.88 | 0.02 | 68.04 | 6.30 | 0.00 | 0.00 | 20.20 | 18.54 | 0.00 | 18.54 | 30.00 | 11.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 132.13 | 36.34 |
| Turkey | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Turks & Caicos Islands | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vanuatu | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vietnam | 20.89 | 32.78 | 30.33 | 445.10 | 0.00 | 0.00 | 16.64 | 41.59 | 0.00 | 41.59 | 78.80 | 104.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 146.67 | 624.36 |
| West Bank/Gaza | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Yemen | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.58 | 0.00 | 1.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.58 |
| Europe/Eurasia | 219.46 | 259.65 | 652.59 | 1,123.01 | 4.85 | 1.44 | 155.06 | 168.28 | 0.00 | 168.28 | 822.65 | 1,001.21 | 0.00 | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 1,854.60 | 2,557.42 |
| Albania | 1.61 | 1.06 | 1.33 | 0.99 | 0.00 | 0.00 | 7.57 | 2.22 | 0.00 | 2.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10.50 | 4.27 |
| Armenia | 5.11 | 10.05 | 0.00 | 0.00 | 0.00 | 0.00 | 9.07 | 9.74 | 0.00 | 9.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.17 | 23.49 |
| Azerbaijan | 0.00 | 1.95 | 0.00 | 0.00 | 0.00 | 0.00 | 5.23 | 2.68 | 0.00 | 2.68 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.23 | 4.62 |
| Belarus | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Bosnia & Herzegovina | 3.58 | 0.77 | 4.00 | 4.17 | 0.00 | 0.00 | 0.08 | 0.33 | 0.00 | 0.33 | 8.11 | 10.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.77 | 15.74 |
| Bulgaria | 2.26 | 4.09 | 9.94 | 18.24 | 1.25 | 0.00 | 4.52 | 7.25 | 0.00 | 7.25 | 27.72 | 39.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 45.68 | 69.14 |
| Central Asia Regional | 2.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.53 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.00 | 1.53 |
| Croatia | 5.04 | 8.64 | 19.55 | 26.66 | 0.00 | 0.00 | 27.6 | 86.06 | 0.00 | 6.06 | 25.36 | 28.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 77.63 | 69.89 |
| Cyprus | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Czech Rep. | 18.17 | 33.46 | 214.53 | 169.21 | 0.00 | 0.00 | 9.01 | 23.27 | 0.00 | 23.27 | 147.93 | 255.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 389.64 | 481.15 |
| Estonia | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Europe & Eurasia Regional | 9.19 | 3.07 | 0.00 | 0.00 | 1.22 | 0.39 | 0.59 | 0.14 | 0.00 | 0.14 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.00 | 3.60 |
| Georgia | 18.13 | 9.67 | 0.00 | 0.00 | 1.63 | 0.00 | 2.51 | 6.37 | 0.00 | 6.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.28 | 16.05 |

TABLE 7-4 (Continued) 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/ REGION | MITIGATION | | | | | | | | | | ADAPTATION | | | | | | TOTALS | | | | | |
|---------------------------------|------------------|------------------|------------------|------------------|--------------|--------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|-------------------|-------------|-------------------------|-------------|-----------------------------|-------------|------------------|------------------|--------|------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | 2001 | | 2004 | |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 |
| Hungary | 43.64 | 80.18 | 94.38 | 552.14 | 0.00 | 0.00 | 25.73 | 32.72 | 0.00 | 32.72 | 164.51 | 175.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 328.27 | 840.97 | |
| Kazakhstan | 5.28 | 1.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.84 | 0.41 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.08 | 6.11 | 2.26 | | |
| Kosovo | 0.00 | 0.92 | 0.00 | 0.00 | 0.00 | 0.00 | 2.34 | 2.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.34 | 2.92 | | |
| Kyrgyzstan | 0.75 | 0.80 | 0.00 | 0.00 | 0.00 | 0.00 | 1.16 | 0.62 | 0.00 | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.91 | 1.42 | | |
| Latvia | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Lithuania | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Macedonia | 2.64 | 0.74 | 3.62 | 1.06 | 0.00 | 0.00 | 2.78 | 0.68 | 0.00 | 0.68 | 11.19 | 8.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.22 | 10.58 | | |
| Moldova | 4.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.95 | 10.53 | 0.00 | 10.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 6.53 | 10.53 | | |
| Montenegro | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | | |
| Poland | 22.41 | 30.91 | 96.33 | 150.00 | 0.00 | 0.00 | 26.18 | 30.00 | 0.00 | 30.00 | 261.76 | 244.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 406.68 | 455.41 | | |
| Romania | 12.20 | 36.20 | 178.99 | 67.88 | 0.00 | 0.00 | 8.97 | 10.60 | 0.00 | 10.60 | 103.79 | 126.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 303.94 | 240.96 | | |
| Russia | 1.30 | 3.00 | 0.00 | 0.00 | 0.75 | 1.05 | 0.70 | 0.40 | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.75 | 4.45 | | |
| Serbia | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 2.30 | 0.00 | 2.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 2.30 | | |
| Slovak Rep. | 2.91 | 3.14 | 6.22 | 32.33 | 0.00 | 0.00 | 2.91 | 3.02 | 0.00 | 3.02 | 25.45 | 44.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.49 | 82.66 | | |
| Slovenia | 9.28 | 8.17 | 17.87 | 39.76 | 0.00 | 0.00 | 2.86 | 2.26 | 0.00 | 2.26 | 39.52 | 43.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 69.53 | 93.53 | | |
| Tajikistan | 0.10 | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.57 | 0.38 | 0.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.67 | 0.88 | | |
| Turkmenistan | 0.35 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45 | 0.12 | | |
| Ukraine | 47.65 | 16.76 | 0.00 | 0.00 | 0.00 | 0.00 | 8.64 | 8.25 | 0.00 | 8.25 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 56.29 | 25.03 | | | |
| Uzbekistan | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64 | 0.93 | 0.00 | 0.93 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | 0.93 | | | |
| Yugoslavia | 1.05 | 2.80 | 5.84 | 60.56 | 0.00 | 0.00 | 1.44 | 4.31 | 0.00 | 4.31 | 7.32 | 25.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.65 | 92.79 | | | |
| Latin America/ Caribbean | 10,090.11 | 10,905.04 | 22,168.65 | 21,495.12 | 29.47 | 44.28 | 4,242.76 | 4,708.00 | 0.00 | 4,708.00 | 34,858.14 | 29,401.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.71 | 71,389.13 | 66,554.53 | | |
| Anguilla | 0.66 | 0.56 | 1.87 | 1.64 | 0.00 | 0.00 | 0.56 | 1.55 | 0.00 | 1.55 | 2.73 | 2.96 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.82 | 6.70 | | | |
| Antigua & Barbuda | 3.28 | 4.01 | 14.54 | 11.73 | 0.00 | 0.00 | 1.05 | 1.99 | 0.00 | 1.99 | 14.04 | 12.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.91 | 30.09 | | | |
| Argentina | 177.16 | 144.38 | 399.72 | 378.96 | 0.00 | 0.00 | 227.06 | 249.51 | 0.00 | 249.51 | 1,005.13 | 547.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,809.07 | 1,320.29 | | | |
| Aruba | 9.11 | 10.42 | 17.88 | 15.91 | 0.00 | 0.00 | 2.37 | 12.81 | 0.00 | 12.81 | 78.63 | 38.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 107.99 | 77.46 | | | |
| Bahamas | 32.72 | 40.85 | 96.15 | 92.89 | 0.00 | 0.00 | 38.90 | 19.84 | 0.00 | 19.84 | 96.82 | 102.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 264.59 | 255.77 | | | |
| Barbados | 12.53 | 13.44 | 15.08 | 20.84 | 0.00 | 0.00 | 5.56 | 10.02 | 0.00 | 10.02 | 63.09 | 65.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 96.26 | 110.20 | | | |

TABLE 7-4 (Continued) 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/REGION | MITIGATION | | | | | | | | | | | | ADAPTATION | | | | | | | |
|--------------------------|------------|--------|-----------|----------|----------|------|-------------|--------|------------------|--------|----------|----------|-------------------|------|-------------------------|------|-----------------------------|------|----------|----------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | TOTALS | |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 |
| Belize | 8.13 | 7.28 | 20.58 | 15.50 | 0.00 | 0.00 | 5.31 | 3.03 | 0.00 | 3.03 | 25.52 | 20.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 59.55 | 46.00 |
| Bermuda | 13.85 | 12.10 | 53.35 | 110.77 | 0.00 | 0.00 | 2.49 | 4.84 | 0.00 | 4.84 | 61.96 | 70.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 131.65 | 198.28 |
| Bolivia | 7.13 | 12.97 | 19.16 | 16.73 | 4.95 | 1.80 | 52.48 | 38.38 | 0.00 | 38.38 | 65.06 | 47.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 148.77 | 117.04 |
| Brazil | 1,400.64 | 406.62 | 3,431.13 | 3,099.63 | 2.50 | 3.56 | 719.59 | 761.14 | 0.00 | 761.14 | 1,797.03 | 1,220.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7,350.89 | 5,491.51 |
| British Virgin Islands | 3.27 | 2.97 | 62.03 | 346.24 | 0.00 | 0.00 | 1.67 | 1.96 | 0.00 | 1.96 | 2,148.70 | 1,158.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2,215.66 | 1,509.74 |
| Caribbean Regional | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | 0.00 | 1.74 | 0.00 | 1.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.55 | 2.72 |
| Cayman Islands | 6.76 | 18.00 | 24.04 | 49.39 | 0.00 | 0.00 | 2.44 | 4.08 | 0.00 | 4.08 | 23.20 | 53.92 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 56.43 | 125.38 |
| Central America Regional | 0.00 | 0.00 | 0.00 | 0.00 | 4.56 | 5.60 | 0.00 | 1.72 | 0.00 | 1.72 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.56 | 7.32 |
| Chile | 144.46 | 183.04 | 449.39 | 359.47 | 0.00 | 0.00 | 337.22 | 443.61 | 0.00 | 443.61 | 780.83 | 710.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,711.89 | 1,696.29 |
| Colombia | 178.47 | 199.14 | 276.10 | 294.06 | 0.00 | 0.00 | 303.55 | 345.93 | 0.00 | 345.93 | 740.17 | 791.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,498.29 | 1,630.49 |
| Costa Rica | 109.62 | 110.65 | 215.90 | 207.63 | 0.00 | 0.00 | 36.99 | 35.77 | 0.00 | 35.77 | 596.16 | 1,063.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 958.67 | 1,417.78 |
| Dominica Islands | 0.59 | 1.06 | 1.55 | 1.60 | 0.00 | 0.00 | 0.67 | 0.61 | 0.00 | 0.61 | 5.65 | 6.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.45 | 10.21 |
| Dominican Republic | 204.69 | 341.29 | 206.85 | 147.69 | 0.00 | 0.19 | 62.90 | 28.94 | 0.00 | 28.94 | 750.99 | 444.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,225.44 | 962.45 |
| Ecuador | 71.17 | 68.09 | 117.43 | 92.72 | 5.30 | 5.66 | 177.22 | 171.16 | 0.00 | 171.16 | 246.86 | 310.46 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 617.99 | 648.09 |
| El Salvador | 23.12 | 24.87 | 37.27 | 146.56 | 0.00 | 0.00 | 12.94 | 17.15 | 0.00 | 17.15 | 177.81 | 228.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 251.14 | 417.20 |
| French Guiana | 0.71 | 0.53 | 7.72 | 2.60 | 0.00 | 0.00 | 0.81 | 1.06 | 0.00 | 1.06 | 5.17 | 3.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.42 | 7.66 |
| Grenada Islands | 4.42 | 5.80 | 2.81 | 3.05 | 0.00 | 0.00 | 2.10 | 0.60 | 0.00 | 0.60 | 115.08 | 220.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 124.40 | 230.09 |
| Guadeloupe | 2.30 | 1.36 | 3.50 | 3.35 | 0.00 | 0.00 | 1.64 | 0.58 | 0.00 | 0.58 | 7.99 | 8.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 15.42 | 13.40 |
| Guatemala | 59.45 | 51.72 | 86.76 | 118.93 | 0.00 | 1.88 | 45.90 | 61.19 | 0.00 | 61.19 | 115.58 | 153.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 307.69 | 387.20 |
| Guyana | 12.51 | 6.47 | 3.60 | 6.12 | 0.00 | 0.00 | 10.57 | 4.35 | 0.00 | 4.35 | 135.44 | 204.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 162.12 | 221.45 |
| Haiti | 25.66 | 33.62 | 23.91 | 23.73 | 0.00 | 0.00 | 9.23 | 5.48 | 0.00 | 5.48 | 24.20 | 28.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 83.00 | 90.95 |
| Honduras | 54.96 | 68.08 | 52.25 | 124.15 | 2.89 | 0.75 | 18.22 | 24.29 | 0.00 | 24.29 | 131.78 | 151.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 260.10 | 368.41 |

TABLE 7-4 (Continued) 2001 and 2004 U.S. Direct Financial Contributions Related to Implementation of the UNFCCC (Millions of U.S. Dollars)

| RECIPIENT COUNTRY/ REGION | MITIGATION | | | | | | | | | | ADAPTATION | | | | | TOTALS | | | | |
|------------------------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|------------------|--------------|-------------|-------------|-------------------|-------------|-------------------------|-------------|-----------------------------|-------------|--------------|---------------|
| | Energy | | Transport | | Forestry | | Agriculture | | Waste Management | | Industry | | Capacity Building | | Coastal Zone Management | | Other Vulnerability Studies | | 2001 | 2004 |
| | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 | 2001 | 2004 |
| Jamaica | 45.56 | 40.06 | 99.56 | 73.26 | 1.94 | 1.38 | 28.87 | 23.59 | 0.00 | 23.59 | 161.51 | 143.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 337.44 | 281.93 |
| Latin America Regional | 1.70 | 1.99 | 0.00 | 0.00 | 2.03 | 10.60 | 0.60 | 2.64 | 0.00 | 2.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.33 | 15.23 |
| Martinique | 0.80 | 0.65 | 4.77 | 6.24 | 0.00 | 0.00 | 1.02 | 0.86 | 0.00 | 0.86 | 112.64 | 76.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 119.24 | 84.24 |
| Mexico | 6,908.87 | 8,594.34 | 15,258.10 | 14,662.68 | 3.20 | 3.81 | 1,007.86 | 1,335.41 | 0.00 | 1,335.41 | 18,636.35 | 15,859.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.71 | 41,814.38 | 40,456.74 |
| Montserrat Islands | 0.50 | 0.12 | 0.26 | 0.28 | 0.00 | 0.00 | 0.00 | 0.48 | 0.00 | 0.48 | 4,779.12 | 3,664.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4,779.88 | 3,665.88 |
| Nicaragua | 19.91 | 25.26 | 23.84 | 29.98 | 0.49 | 0.50 | 22.65 | 22.45 | 0.00 | 22.45 | 25.66 | 39.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 92.55 | 117.70 |
| Panama | 57.96 | 43.59 | 101.58 | 278.71 | 0.00 | 5.12 | 23.92 | 30.92 | 0.00 | 30.92 | 165.10 | 128.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 348.55 | 486.65 |
| Paraguay | 3.47 | 7.38 | 6.51 | 8.66 | 0.00 | 0.93 | 2.27 | 1.45 | 0.00 | 1.45 | 69.38 | 88.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 81.63 | 106.92 |
| Peru | 56.08 | 64.75 | 83.45 | 87.09 | 1.62 | 1.51 | 207.69 | 219.59 | 0.00 | 219.59 | 241.68 | 264.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 590.52 | 637.76 |
| Saint Kitts-Nevis | 9.39 | 15.43 | 6.07 | 4.05 | 0.00 | 0.00 | 0.65 | 1.29 | 0.00 | 1.29 | 233.22 | 365.87 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 249.33 | 386.64 |
| Saint Lucia Islands | 3.30 | 2.11 | 3.50 | 4.38 | 0.00 | 0.00 | 1.04 | 1.17 | 0.00 | 1.17 | 173.11 | 165.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 180.94 | 173.55 |
| Saint Pierre & Miquelon | 0.01 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.73 | 3.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.76 | 3.71 |
| Saint Vincent & Grenadines | 1.24 | 2.27 | 2.01 | 3.10 | 0.00 | 0.00 | 1.14 | 0.45 | 0.00 | 0.45 | 6.70 | 9.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 11.09 | 14.82 |
| Suriname | 4.68 | 6.10 | 9.02 | 13.02 | 0.00 | 0.00 | 9.91 | 13.41 | 0.00 | 13.41 | 16.45 | 22.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.05 | 54.81 |
| Trinidad & Tobago | 52.39 | 64.26 | 60.01 | 62.85 | 0.00 | 0.00 | 199.65 | 169.96 | 0.00 | 169.96 | 194.79 | 178.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 506.83 | 475.48 |
| Uruguay | 13.24 | 8.61 | 21.42 | 28.79 | 0.00 | 0.00 | 7.54 | 7.22 | 0.00 | 7.22 | 65.59 | 44.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 107.79 | 89.00 |
| Venezuela | 343.09 | 258.77 | 847.96 | 540.16 | 0.00 | 0.00 | 648.52 | 623.76 | 0.00 | 623.76 | 759.52 | 680.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2,599.08 | 2,103.31 |
| Other Global Programs | 16.06 | 3.15 | 0.05 | 0.18 | 4.02 | 21.55 | 10.79 | 82.64 | 0.02 | 82.64 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45 | 31.41 | 107.86 |