

## Executive Summary

The United States Agency for International Development (USAID) hereby submits the FY 2000-2001 report on tropical forests and the U.S. Government's role in supporting the sustainable management of the world's forests, as required by the Foreign Assistance Act (FAA).

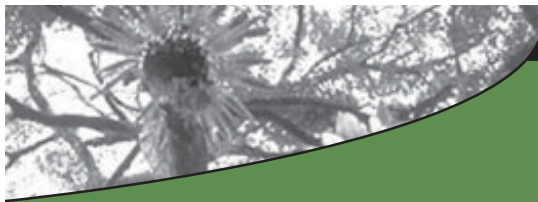
In Section 118 of the FAA on Tropical Forest Compliance, Congress "recognizes the importance of forests and tree cover" and expresses particular concern about the "continuing and accelerating alteration, destruction, and loss of tropical forests in developing countries." The FAA (Section 118) legislation mandates that USAID take certain actions regarding tropical forests. This document responds to the Congressional request for an annual report on implementation of Section 118 (a) through (e). It deals primarily with USAID activities in the area of tropical forests. This report to Congress highlights USAID's experiences in protecting and sustaining tropical forest cover in developing countries around the world. USAID implements 44 tropical forest programs in 70 countries located in three geographic regions: Latin America and the Caribbean, Africa, and Asia. Additionally, USAID forestry programs are working in the vast temperate and boreal forests of Europe and Eurasia. Activities in Europe and Eurasia are also covered in this report.

Sustainable forest management on a global level can only be achieved through the involvement of a range of interest groups and the accommodation of multiple agendas in planning and implementing forest programs. In FY 2000, the Agency had in place collaborative partnerships with over 100 Government agencies; non-Governmental, private, and voluntary organizations; and multilateral organizations in areas where deforestation is of major concern. These partnerships have made significant breakthroughs in various areas of tropical forestry.

Many programs involve inter-sectoral activities combining forestry and agriculture, forestry and biodiversity, and forestry and energy components within USAID's development portfolio. Emerging themes emphasized throughout this report include the implementation of (1) sustainable forest management principles and practices, (2) forest governance and policy, and (3) forest values and economics. For example, USAID forest programs in Africa concentrate on building the capacity of local communities in sustainably managing their own resources, while activities in Latin America and the Caribbean work extensively on both promoting sustainable natural forest management and improving the management of parks and protected areas, thereby conserving forests that are key for safeguarding globally significant biodiversity.

A global consensus on the importance of tropical forest conservation was established in 1992 at the United Nations Conference on Environment and Development. In the 10 years since then, USAID funding of forest programs has fluctuated and gradually declined from approximately \$118 million in 1991 to \$84 million in FY 2001. The decline of funding levels over this period can be attributed to several factors. These include: overall reductions in USAID's budget; cuts in technical personnel working abroad in forestry; shifting Congressional priorities; and changing Administration emphases. In September 2002, the World Summit on Sustainable Development (WSSD) will again highlight deforestation as a major concern in the North-South deliberation with regard to the linkage between environment and development. USAID's responsiveness to, and participation in, WSSD and other international initiatives will influence and shape the Agency's future tropical forest agenda.





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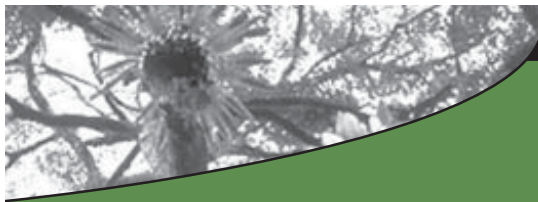
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# Acronyms

<b>AEC</b>	Agro-Enterprise Center
<b>AFR</b>	Africa
<b>AFRENA</b>	Agro-forestry Research Network for Africa
<b>ANE</b>	Asia and the Near East
<b>ANGAP</b>	Association Nationale pour la Gestion des Aires Protégées (Madagascar National Park Service)
<b>APFDP</b>	Albania Private Forestry Development Program
<b>ARD</b>	Associates in Rural Development
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>AWF</b>	African Wildlife Foundation
<b>BCEG</b>	Biodiversity Conservation and Economic Growth Project
<b>BIOFOR</b>	Biodiversity and Sustainable Forestry
<b>BOLFOR</b>	Bolivia Sustainable Forest Management Project
<b>CADEFOR</b>	Amazon Center for Sustainable Forest Enterprise
<b>CAPAS</b>	Central American Protected Areas System
<b>CARPE</b>	Central African Regional Program for the Environment
<b>CCAD</b>	Central American Commission for Environment and Development
<b>CCI</b>	Climate Change Initiative
<b>CEE</b>	Central Eastern Europe
<b>CI</b>	Conservation International
<b>CIFOR</b>	Center for International Forestry Research
<b>COBRA</b>	Conservation of Biodiverse Resource Areas
<b>CONAM</b>	National Environment Council
<b>CONCAUSA</b>	Central America-U.S. Joint Accord
<b>CORE</b>	Conservation of Resources through Enterprises
<b>CRMP</b>	Coastal Resources Management Project
<b>DGFP</b>	Directorate General of Forests and Parks
<b>DNEF</b>	National Directorate of Waters and Forests
<b>DRC</b>	Democratic Republic of Congo
<b>EAI</b>	Enterprise for the Americas Institute
<b>EAPEI</b>	East Asia and Pacific Environmental Initiative
<b>E&amp;E</b>	Europe and Eurasia
<b>EGAT</b>	Economic Growth, Agriculture, and Trade
<b>ESNACIFOR</b>	National Forestry Science School
<b>FAA</b>	Foreign Assistance Act
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>FNCCI</b>	Federation of Nepalese Chambers of Commerce
<b>FOREST</b>	Forestry Resources and Technologies Project
<b>FSC</b>	Forest Stewardship Council
<b>FY</b>	Fiscal Year
<b>GCP</b>	Global Conservation Program
<b>GIS</b>	Geographic Information Systems
<b>HPI</b>	Heifer Project International
<b>IAA</b>	Interagency Agreement
<b>ICRAF</b>	International Center for Research in Agro-forestry
<b>INRENA</b>	National Institute for Natural Resources (Peru)
<b>IQC</b>	Indefinite Quantity Contract
<b>LAC</b>	Latin America and the Caribbean
<b>NEAP</b>	National Environment Action Plan
<b>NFP</b>	National Forest Policy
<b>NGO</b>	Non-Governmental Organization

<b>NRM</b>	Natural Resource Management
<b>NTFPs</b>	Non-Timber Forest Products
<b>OSM</b>	Office of Surface Mining, U.S. Department of the Interior
<b>PiP</b>	Parks in Peril
<b>PROARCA</b>	Regional Environmental Program for Central America
<b>PVOs</b>	Private and Voluntary Organization
<b>RFE</b>	Russia Far East
<b>RMGs</b>	Resource Management Groups
<b>RIL</b>	Reduced-Impact Logging
<b>RMGs</b>	Resource Management Groups
<b>ROLL</b>	Replication of Lessons Learned
<b>TBNRMA</b>	Trans-boundary Natural Resource Management Areas
<b>TFA</b>	Tropical Forest Agreement
<b>TFCA</b>	Tropical Forest Conservation Act
<b>TFCF</b>	Tropical Forest Conservation Funds
<b>TFF</b>	Tropical Forest Foundation
<b>TNC</b>	The Nature Conservancy
<b>UNCED</b>	United Nations Conference on Environment and Development
<b>USAID</b>	United States Agency for International Development (or “the Agency”)
<b>USFS</b>	United States Forest Service
<b>USGS</b>	United States Geological Survey
<b>US-LACEP</b>	United States-Latin American and Caribbean Environmental Partnership
<b>UWA</b>	Uganda Wildlife Authority
<b>WPRP</b>	Wildfires Prevention and Restoration Program
<b>WSSD</b>	World Summit on Sustainable Development
<b>WWF</b>	World Wildlife Fund



## Introduction

The United States of America is committed to reducing the loss of tropical forests. The Foreign Assistance Act (FAA) mandates the United States Agency for International Development (USAID) to help manage forests sustainably. Section 118 emphasizes the importance of tropical forests and instructs USAID and other appropriate international organizations to (1) give higher priority to the problems of tropical forest alteration and loss, and (2) improve cooperation and coordination among concerned organizations with respect to tropical forest activities.

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*Nearly 40 percent of USAID's operating units are engaged in forest-related activities and programs.*

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In accordance with the request of Congress and with FAA Section 118 reporting requirements, this report provides regional highlights and analyses of USAID's activities worldwide that support the Agency's commitment to forest management, protection, and conservation. The regional presentation of Latin America and the Caribbean highlights the Bolivia Sustainable Forest Management (BOLFOR) project. With the support of USAID through the BOLFOR project, Bolivia has become a global leader in sustainable forestry, with over 6 million hectares of forest under approved management plans. In sub-Saharan Africa, the USAID-funded Central African Regional Program for the Environment (CARPE) works to reduce deforestation and biodiversity loss in the Congo, home to the second largest tract of tropical forest in the world. In the Asia and the Near

East Region, the USAID Mission to Indonesia manages several forest programs supporting local governments' efforts in formulating forest management policy, building technical expertise, and developing public-private partnerships to manage national parks.

While not a part of the FAA 118 tropical forest requirement, the temperate forests of the Eastern Europe and Eurasia (E&E) region are an important part of the Agency's sustainable forest management and conservation efforts and are therefore included in Annex I: Additional Forestry Programs. The Russia Mission and centrally-funded programs support efforts to reduce deforestation and improve logging practices in the Russia Far East forest (RFE), the largest expanse of temperate frontier forest in the world.

This report on tropical forests and USAID forest activities also outlines the history of the Agency's tropical forest project assistance over a 10-year span. The trend analysis depicts the change in activity and level of funding over time. Also included is an analysis of FY 2001 worldwide Agency expenditures and a summary data table on forest-related activities and programs (Page 15). The report closes with a list of partners with whom the Agency collaborates to implement forest-related programs and activities (Annex II).

Recognizing that much has yet to be done to protect tropical forests, this report highlights some illustrative examples of the Agency's efforts in FY 2000-2001 aimed at protecting forests and, thus, the welfare of forest-dependent people. These forestry programs are an integral component of USAID's efforts to promote sustained economic growth in developing countries. USAID collaborated with 102 non-Governmental organizations and Governments to support forestry programs in 70 countries. The value of these programs is twofold. First, they directly improve rural livelihood and stimulate economic development through income-generating uses, such as ecotourism and community-based enterprises. Second, they protect and enhance environmental services that forests provide, such as the enhancement of water quality and quantity by watersheds, the mitigation of global climate change through carbon sequestration, and the conservation of biodiversity.

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*From 1990 to 2001, total USAID spending on forest activities averaged \$80 million annually.*

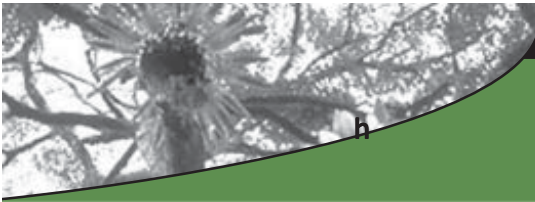
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Leadership for forestry-related activities comes from USAID's Washington-based Forestry Team. The Team is managed within the Environment Office of the Bureau for Economic Growth, Agriculture, and Trade (EGAT), and is composed of members from each USAID Bureau and other federal agencies. Within the past year, the Forestry Team has developed a 5-year action plan and has coordinated forestry activities with other U.S. Government agencies and other partners in international forest conservation.

In summary, this report presents USAID's efforts to promote sustainable forestry management and conservation with examples of several key programs. The activities, programs, and supporting financial data described in this report, illustrate USAID's compliance with the requirements of Section 118 of the FAA. The Agency recognizes the critical importance of tropical forests in fostering sustainable economic growth, mitigating climate change, supporting agricultural productivity, conserving the environment, and improving natural resource management.







## Highlights 2000-2001

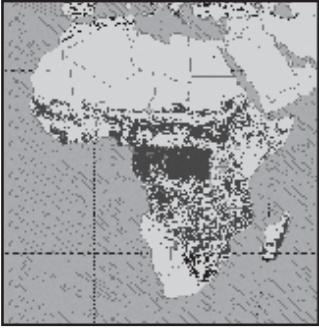
### GLOBAL DISTRIBUTION OF FOREST COVER



### OVERALL, USAID FOREST PROGRAMS HAVE:

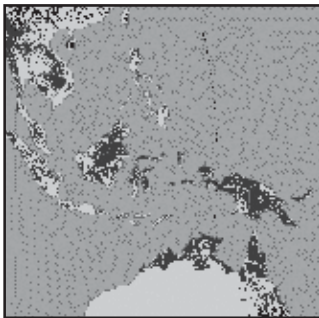
- ◆ Conserved over 40 million hectares of tropical forests in the last half-decade, and aim to increase this area to 75 million hectares over the next 10 years in USAID-assisted countries. This means USAID will conserve an additional 3.5 million hectares per year, focused especially in the African and Latin American and Caribbean regions.
- ◆ Enabled nearly 1.4 million poor Nepalese to benefit from higher incomes, better nutrition, and increased access to markets, because of the establishment of community forest user groups.
- ◆ Protected 37 critically threatened national parks and forest reserves through the Parks in Peril Program that contain biodiversity of global significance in Latin America and the Caribbean. Twenty-one sites covering approximately 8 million hectares have been protected throughout the region. In addition, 25 local non-governmental organizations have been strengthened to ensure sustainable, long-term management of parks and reserves.

## CONSERVATION, PROTECTION, AND SUSTAINABLE MANAGEMENT OF TROPICAL FORESTS 2000-2001:



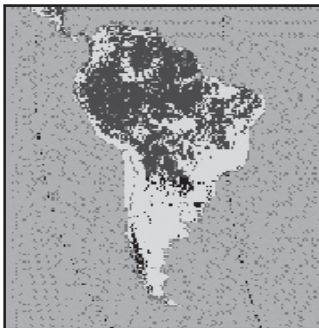
### IN SUB-SAHARAN AFRICA, USAID:

- ◆ Helped conserve and protect 700,000 hectares of tropical forests in Madagascar, bringing the total number of hectares under improved management to 1.75 million in FY 2000. This area is equivalent to 10 percent of the forest cover in Madagascar.
- ◆ Brought two forest areas covering 40,495 hectares under the control of the National Protected Area System in Guinea, increasing the area under protection from 10,266 hectares in FY 1999 to 50,761 hectares in FY 2000.



### IN SOUTHEAST ASIA, USAID:

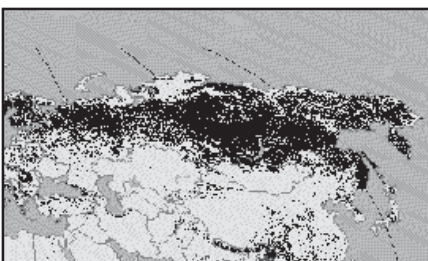
- ◆ Helped 200 community forest groups in the province of East Kalimantan, Indonesia to conserve and manage 400,000 hectares of forest.
- ◆ Worked with the Government of Indonesia to create a new 465,000 hectare national park in the Bird's Head Peninsula of Papua, Indonesia.
- ◆ Assisted the Indonesian Ministry of Mining and Energy to train national and local level officials in fire prevention and preparedness techniques. This training has helped Indonesian fire management groups put out over 100 coal seam fires in East Kalimantan, home to one of the last, intact, lowland primary rainforests in the region.



### IN LATIN AMERICA & THE CARIBBEAN, USAID:

- ◆ Brought an additional 25 million hectares of tropical forests under improved management.
- ◆ Under the Bolivia Sustainable Forest Management (BOLFOR) program, helped six local producer groups and three indigenous groups sustainably manage 285,000 hectares of forest.
- ◆ Created seven new protected forest areas in Honduras, raising the total number of protected areas in the country to 20. This new area under protection totals 22,842 hectares. Since FY 1999, the average number of visitors in the 10 major parks and reserves has increased by 60 percent, and the number of forest fires has been reduced by 50 percent.
- ◆ Trained a total of 371 managers and practitioners in sustainable forest management techniques in the only training center of its kind in the Brazilian Amazon.

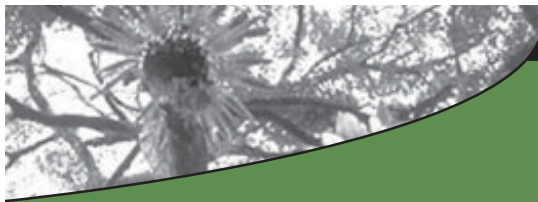
- ◆ Assisted in the development of community-based, forest management activities in 392,056 hectares in Guatemala, generating \$500,000 in revenue and 22,000 days of paid labor that benefited 5,000 people. As a result, Guatemala is a world leader in the number of community-managed hectares that have received the "green seal" certifying sustainable forest management.
- ◆ Worked with 61 indigenous groups, Afro-Ecuadorians, and other communities to improve management practices in Ecuador. This program has brought more than 1,313,000 hectares of forest under participatory and improved sustainable forest management.



### IN THE RUSSIAN FAR EAST, USAID:

- ◆ Reduced the rate of out-of-control fires in the Khabarovsk Krai region of Russia by 25 percent. Radio equipment purchased last year by USAID enabled forest workers to detect fires within the first 24 hours and to quickly contain them. Eighty percent of the region's hard currency earnings are from forests.

*Images courtesy of WCMC-UNEP 2000  
Darkened areas depict forest cover*



## Centrally-Funded Programs: Forestry Highlights

The underlying driving forces behind deforestation are expansion of agriculture lands, economic growth, population pressures, and urbanization. The clearing of land for agriculture is the largest cause of tropical deforestation. However, logging is responsible for an estimated one-third of the total, the proportion rising to about one-half in Asia, and possibly higher still in parts of South America<sup>1</sup>.

Over 33 million hectares of land have reached improved management status in 23 countries under centrally-funded USAID programs since 1986. This section of the report to Congress demonstrates ways in which USAID centrally-funded programs have contributed to the protection and conservation of tropical forests around the world in FY 2000.



This section highlights achievements through two centrally-funded programs that USAID uses to access a wide range of forestry technical expertise; (1) an interagency partnership with the U.S. Forest Service (USFS), and (2) a cooperative partnership with six leading conservation organization under the Global Conservation Program (GCP).

### USAID/US Forest Service (USFS) Partnership



Logging in the tropics, as conventionally practiced, depletes timber stocks and causes severe ecological damage to residual forests. It is believed that in many Southeast Asian countries 45 to 74 percent of trees remaining after logging have been substantially damaged or destroyed.<sup>2</sup> In addition, heavy machinery can compact the soil and destroy vegetation while high-volume harvesting can contribute to erosion, and reduce species diversity and regenerative capacity<sup>3</sup>.

To address this problem, USAID is developing reduced impact logging (RIL) systems in Brazil, Indonesia and Guyana. Technical assistance is provided through an inter-agency agreement with USFS and in cooperation with the Center for International Forestry Research (CIFOR), the International Center for Research in Agro-forestry (ICRAF), and the Tropical Forest Foundation (TFF)—all major players in the international forestry arena. In Indonesia, a regional workshop on the economics of RIL and a field study of the effects of RIL on non-timber forest products (NTFPs) were used to develop RIL implementation guidelines. These guidelines for managing timber production helped to minimize the ecologically damaging side-effects of logging on tropical forests. The guidelines gained support from the logging industry as well as national governments in Southeast Asia, thereby improving state and private logging enterprise collaboration for more sustainable forestry.

Indonesia is home to the largest remaining natural forest in Southeast Asia. It contains approximately 10 percent of the world's remaining tropical rainforest and is the world's largest producer and exporter of tropical wood products. Following catastrophic forest fires that raged across the country in 1997 and 1998, USAID used its centrally-funded, interagency agreement with the USFS to provide technical support to Indonesian Government agencies. U.S. assistance first coordinated an emergency response strategy. Then, following the crisis, field-based biological and socioeconomic data were collected to evaluate the underlying causes of the forest fires and to guide development of a forest fire emergency response plan for the Indonesian government. This plan was tested in several simulation exercises, and local agencies were trained to respond effectively to future fire emergencies.

The work of the USAID/USFS interagency partnership in RIL methods, fire management, and fire emergency preparedness provided important contributions to USAID's forestry program in Indonesia, which since 1986, has protected over 1 million hectares of forest. Similar to the Indonesia example, the partnership program has complemented USAID efforts in many countries worldwide by promoting sustainable forestry management practices and providing research, monitoring, training, and outreach and communication assistance.

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**Over 33 million hectares of land globally are under improved management since 1986.**

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## Global Conservation Program (GCP)

The Global Conservation Program (GCP) is a major new partnership between USAID and six leading conservation organizations that has achieved successful results in protecting forests with globally significant areas of biodiversity. The GCP promotes innovative programs that are sustainable, focused, and adaptive. USAID's conservation partners in this program are the World Wildlife Fund, The Nature Conservancy, Conservation International, the World Conservation Society, the African Wildlife Foundation, and EnterpriseWorks Worldwide.

Areas chosen for attention in this program all harbor a large number of biologically diverse species. Forest biodiversity "hotspots" include sites in: Brazil, Paraguay, Argentina, Peru, Bolivia, Ecuador, Guyana, and Mexico in *Latin America*; Nepal, Cambodia, Vietnam, Laos, Philippines, and India in *Asia*; and the Republic of Congo in *Africa*. By supporting on-the-ground biodiversity conservation and taking a threats-based approach, the program builds on and strengthens local capacity to the maximum extent possible, and it draws together the accumulated experience and expertise of USAID and other partner organizations to strengthen the overall effort.



### Nepal

In five districts in the remote northwest region of Nepal, a GCP partner strengthened the ability of 27 community forest user groups to sustainably manage their community forests for subsistence and commercial extraction. To harness the uncontrolled harvesting of Non-timber Forest Products (NTFPs) (essential oils, medicinal plants, etc.) USAID's partner assisted the groups to incorporate NTFPs into Government-recognized forest resource management plans -- the first time this had been done in Nepal. This



was a significant policy advance, since biodiversity threat assessments for many forests in Nepal have determined that over-harvesting of NTFPs and subsistence activities (such as gathering fuelwood and fodder for grazing animals) are the leading causes of habitat destruction.

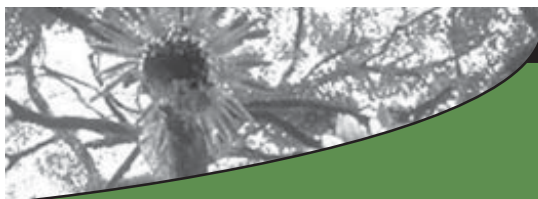
With the establishment of community enterprises and use of practical biological

monitoring to guide extraction of forest products, employment is being created for disadvantaged community groups. Youths who usually go to India for seasonal employment have been able to stay at home and work. For example, one of the groups owns a company that produces paper using locally available materials. This is the first local paper company in Nepal to be operated by a forest user group. It employs 12 local people and benefits hundreds of households through seasonal employment and the use of its profits to provide community services.

Reduction of forest biodiversity and production has negatively affected food, fodder, medicine, and shelter for poor people. Forests are critical to the maintenance of biodiversity. An estimated 27,000 to 50,000 species are lost each year through the destruction of tropical forests -- approximately one thousand times the rate of what would occur naturally. Maintenance of biodiversity is central to human health and well being. Fifty-seven percent of the top 150 most prescribed drugs come from tropical forests, providing enormous human health benefits. Yet, 95 percent of known plant species have not been screened for their medical value. Forests also protect watersheds and help provide clean water to a growing world population. Large forested areas protect the soils, the hydrological cycle, and the genetic diversity upon which world food supply depends.

Developing nations require assistance to protect, conserve, and restore their outstanding forests. Otherwise, over the next 30 years, an estimated 20 percent of the world's species will become extinct. The prospects for human health, agricultural productivity, and economic growth around the world, including in the United States, depend significantly on conserving forests that harbor global biological diversity.

In 1992, the Earth Summit included agreement on forest principles and the completion of the United Nations Convention on Biological Diversity (CBD) gave forest biodiversity high-profile attention. The CBD outlines a global commitment to address threats to biodiversity brought on by the push for economic growth. Over the past decade, many governments have developed national frameworks and policies that make great strides towards recognizing the role that a healthy, biologically diverse environment plays in improving the lives of people. Since its inception, over 183 countries have ratified the CBD.



## Africa (AFR): Forestry Highlights

The forests of Africa cover 520 million hectares and constitute more than 17 percent of the world's forests. They are largely concentrated in the tropical zones of Western, and Central, Eastern and Southern Africa. With over 109 million hectares, the Democratic Republic of the Congo alone has more than 20 percent of the region's forest cover, while Northern Africa has little more than 9 percent, principally along the coast of the Western Mediterranean countries. Forest types include dry tropical forests in the Sahel, Eastern and Southern Africa, humid tropical forests in Western and Central Africa, diverse subtropical forest and woodland formations in Northern Africa and the southern tip of the continent, as well as mangroves in the coastal zones.<sup>4</sup>

USAID forest biodiversity conservation activities are located in Namibia, East Africa, and Central and Southern African Regions. For example, USAID supports Madagascar's efforts in conserving its globally recognized biodiversity. By FY 2000, the number of hectares in protected status had increased by approximately 700,000 hectares, to 1.75 million hectares, or 10 percent of all forests in Madagascar. By the end of the fiscal year, protected land areas included 100 percent of the country's ecosystem types, up from just 70 percent in the previous year.

Africa regional and Mission programs highlighted in this section include the Central African Regional Program for the Environment (CARPE) and Madagascar. Reports for the Initiative for Southern Africa, Guinea, Kenya, Malawi, and Uganda Missions are found in Annex I of this Report.

### Central African Regional Program for the Environment (CARPE)

The Central African Regional Program for the Environment (CARPE) is a USAID-supported, long-term initiative that addresses the issues of deforestation and biodiversity loss in the Congo Basin forest zone, in the heart of the African continent. The Congo Basin contains the largest remaining expanse of tropical moist forest in Africa and the second largest in the world. This forest, of 170 million hectares (approximately one-fourth the area of the contiguous United States), continues to sequester large quantities of carbon, and contains a carbon inventory equivalent to 1,000 times the current carbon dioxide (CO<sub>2</sub>) emissions in the region.<sup>5</sup> Nonetheless, deforestation in the Congo Basin contributes significantly to atmospheric CO<sub>2</sub> concentrations, and at its present annual rate could decimate these forests over the next 50 years, following the trajectory of West Africa.



CARPE works with Basin states including Cameroon, Central African Republic, Equatorial Guinea, Gabon, Republic of Congo, Democratic Republic of Congo, Rwanda, Burundi, and São Tomé e Príncipe. CARPE's core philosophy is to

facilitate the meaningful involvement of African partners and to ensure that African decision-makers have access to, and the capacity to use, information critical to forest resource management. USAID does not have an in-country presence in any Congo Basin country. Consequently, CARPE is designed and implemented by a team composed of representatives from U.S. conservation organizations and Government agencies. CARPE engages international organizations to assist local non-governmental organizations, individuals, and Government agencies in activities that evaluate threats to forest integrity and identify and pilot opportunities for minimizing resource degradation, while promoting human livelihood and security.

To help Missions and African partners detect biophysical change over time and space, CARPE partnered with the U.S. Geological Survey (USGS) to detect program-induced changes from USAID/Mali's Upper River Valley Development Program. Preliminary results (from FY 2001) prove this to be a viable conservation tool, demonstrating positive biophysical program results. In addition, through a buy-in to the U.S. Forest Service Interagency Agreement with USAID, a forest cover analysis and monitoring system was developed for use in the Eastern Arc Mountains of Kenya and Tanzania. A series of monitoring plots were established, and a geographic information system (GIS) was developed. Implementing partners have been trained in the use of the GIS as well as in Internet-based communication. The provision and utilization of up-to-date information on the current state of, and recent changes in, forest resources are essential elements of environmental planning and management.





CARPE achieved its 5-year objective of research and learning about environmental and natural resource management issues in the Congo Basin. This research culminated in a series of 25 briefing sheets (representing only a small percentage of the overall information gathered) on a wide range of subjects from greening the private sector, to non-timber forest products, to environment and conflict. This information, available in both French and English, was distributed widely to Government and non-Government users, significantly clarifying the factors driving deforestation and forest degradation in the region. Increased public awareness in these areas is expected to have a broad impact on environmental governance, policy, and investment across the Congo Basin.

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*The tropical forests of the Congo Basin represent one of the world's great remnant blocks of closed canopy habitat. This forest is under increasing pressure from population growth, unsustainable resource use, poor management, and other problems related to poverty and political instability.<sup>6</sup>*

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## Madagascar

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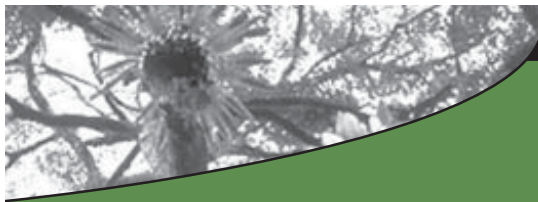
International conservation organizations cite Madagascar as the highest biodiversity priority in Africa and among the top three global "biodiversity hotspots." To preserve these invaluable natural resources, USAID seeks to conserve biologically diverse ecosystems in priority conservation zones through improved natural resources management by supporting Africa's first National Environment Action Plan (NEAP).

USAID support is reducing human pressure on forests and creating economic and social incentives for forest-biodiversity conservation. Nearly 10 percent of Madagascar is now protected, compared to 4.7 percent in 1989. The protected area system now includes 15 of 16 areas that are considered critical habitats for protecting biodiversity. Moreover, USAID leadership raised improved natural resource management to the forefront of Donor-Government debt reduction dialogue. Significant issues in implementation involved addressing illegal exploitation of tropical forests, increasing the effectiveness and reducing the complexity of the multi-donor-supported Environmental Program, and responding to the cyclones in 2000. Donor unity in pressing the Government of Madagascar to honor its forest commitments has remained the principal concern, since domestic political changes could undermine both biodiversity conservation objectives and the goal to reduce poverty.

This past year, the number of hectares in protected status in Madagascar increased by approximately 700,000 hectares, to 1.75 million hectares, or 10 percent of all tropical forests. Madagascar has a high number of species that only occur in that country. Research has shown that over 90 percent of Madagascar's biodiversity can be found in primary forests, of which lowland and mid-altitude forests contain the vast majority. No single species and no particular ecosystem type are "keystone." The total number of species richness, the diversity of species assemblages, and the number of rare locally endemic species increase significantly with increases in the number of ecosystem types. By the end of 2000, protected land areas included 100 percent of the country's terrestrial ecosystems.

USAID has been the lead donor in establishing Madagascar's National Park system. As a result, National Park Service (ANGAP) revenue has increased an average of 14 percent each year for the last 5 years. USAID supported ANGAP's development and use of a protected area management plan. The plan provides a cohesive ecoregional strategy for park network management to supplant the current ad hoc decision-making. It identifies critical biodiversity areas; prioritizes which unprotected area to include in the network; outlines research, ecological monitoring, park development, community involvement and eco-tourism objectives; and creates systems for achieving the financial stability of the National Park system. Madagascar's biodiversity-rich forest areas are poised for a sustainable economic take-off that will concurrently alleviate poverty and conserve precious biodiversity.





## Asia and the Near East (ANE): Forestry Highlights

**T**he USAID Asia and Near East (ANE) region covers the world's most biologically-rich countries, both in terms of species richness and number of tropical forests. Many of these countries also have among the highest rates of natural habitat loss-aquatic and terrestrial-due to deforestation, agricultural expansion, population growth, and urban and industrial development. For example, Bangladesh has already lost more than 90 percent of its original forest and has less than 1 percent under park or protected areas. Similar trends are appearing in other ANE countries. Less than 2 percent of original forest remains in the Philippines; and Indonesia-the most important megadiversity country in the world-continues to have the highest deforestation rate and the world's longest list of species threatened with extinction. The economic value of these biological resources is apparent as tourist attractions, but less appreciated in their role in providing genetic resources for crop improvement, protection from pests, production of vital medicines, and ecosystem services such as watershed protection.

Since 1997, the USAID Mission to Indonesia has achieved (1) the improvement of over 560,000 hectares of forest cover, and (2) the implementation of 78 site-specific agreements or plans between stakeholders and the Government of Indonesia. In FY 2000, Bangladesh signed an \$80 million project with the Asian Development Bank (ADB) to protect the Sunderbans Biodiversity, the largest mangrove forest in the world, and main habitat of the Royal Bengal Tiger.<sup>7</sup> This section highlights USAID forestry activities in Indonesia and the East Asia and Pacific Environmental Initiative. Reports for Bangladesh and Nepal are found in Annex I of this report.



### Indonesia

While Indonesia ranks first in the world in abundance of plant and marine biodiversity, and second only to the Amazon Basin in area of tropical forests, its wealth of natural resources is being eroded at a relentless pace. Improving natural resource management (NRM) is crucial to both the promotion of democracy and economic growth in the country. Many of the issues central to Indonesia's transition to democracy are rooted in questions surrounding the control of Indonesia's rich natural resources. USAID's Natural Resources Management Program promotes more transparent and inclusive decision-making related to the sustainable and equitable use of natural resources.

With a wide variety of partners, USAID promotes improved and decentralized management of forest resources. Activities include providing technical assistance to the Ministry of Forestry and Agriculture, as well as to local Governments and communities on a wide range of forestry issues. These include spatial planning, resource valuations, reforestation, illegal logging, and sustainable practices and policies in the wood, pulp, and paper industries.

Community resource mapping programs conducted by USAID partner organizations have led to the adoption of community-managed zones in parks and national forests, and incorporation of the maps into local development plans in 30 areas. In Lore Lindu National Park in Central Sulawesi, a formal decree awarded both the Katu and Robo Behoa people the right to retain control over their traditional lands located within the park. They have already proven themselves to be more effective than the park rangers in keeping illegal loggers and poachers from operating there. In West Kalimantan, eight communities also used USAID's community resource mapping assistance to prevent timber concessionaires from acquiring their traditional lands.

USAID promotes pluralistic and transparent natural resource decision-making and management by supporting site-specific management plans and agreements among Indonesian stakeholders. Training programs on the biology of resources, market analysis, and other areas, help facilitate successful implementation of these agreements. Agreements reflect the increased willingness of the Government to work with non-governmental stakeholders (such as resource user groups, local communities, private sector companies, and traditional groups) on NRM and have generated models of successful partnerships.

At the Bunaken National Marine Park in North Sulawesi, several years of USAID assistance has culminated in the first revenue-sharing arrangement in any of Indonesia's national parks and the establishment of a formal mechanism for local participation in park management. The national Government, in cooperation with local communities, and the Governor and the legislature of North Sulawesi, has established a Management Advisory Board representing local communities living within the park's boundaries. The board has the right to charge entrance fees to the park, retaining 80 percent of the revenue for park operations, maintenance and community development projects, while the remaining 20 percent is shared equally among the municipal, district, provincial, and national Governments. Managers from three other national marine parks have approached USAID for assistance in establishing Management Advisory Boards.

The Friends of Kutai (East Kalimantan) partnership demonstrates the effectiveness of private-sector support for national park management through leveraging of financial and technical resources. USAID helped the Friends of Kutai leverage over \$100,000 (three times the government allocation for park management) from eight timber companies to support conservation management for East Kutai National Park. In the West Kalimantan, the Bukit Baka/Bukit Raya Concessionaire National Park partnership serves as a forum for park management to work with timber concession holders to ensure they do not encroach the park's boundaries. Park management has leveraged funds from the concessionaires' village development programs to support community buffer zone development initiatives.

In response to the 1997-98 fire and haze crisis in Southeast Asia, caused largely by uncontrolled forest fires in Indonesia, USAID finances a program implemented by the U.S. Department of the Interior, Office of Surface Mines (OSM), for coal seam fire suppression. In FY 2000, OSM trained 43 people at the national and local level, which in turn trained an additional 45 individuals. They have put out over 100 coal seam fires, mainly in the Sungai Wain National Forest Preserve, one of the few, intact, lowland primary rainforests remaining in East Kalimantan.



In the resource-rich provinces of East Kalimantan and West Papua (Irian Jaya), USAID is working with local Governments to slow the pace of deforestation and recognize the traditional resource management rights of local indigenous communities. The District Chief of West Kutai, East Kalimantan, declared 200 community forests (approximately 400,000 hectares in size) as protected areas. Similarly,

working in partnership with local communities, the Governor of West Papua has endorsed the creation of a new 465,000-hectare national park in the Bird's Head Peninsula. This process reflected the results of a multi-year biodiversity mapping activity that will be used to guide the planning of West Papua's future conservation and development activities.

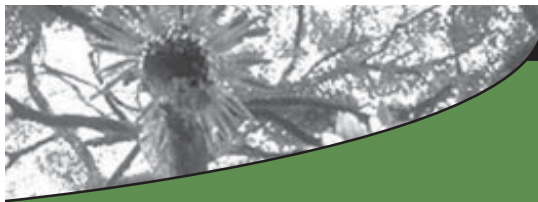
USAID's Coastal Resources Management Project (CRMP) supported efforts in Lampung, Sumatra to develop and implement a coastal zone management plan for the province. As a result, local communities planted 50,000 new trees to rehabilitate degraded mangrove areas, and the water quality in Lampung Bay has shown measurable improvement. The local legislature used these results to gain public support for stronger regulation of the management of mangrove areas in the region. Continued assistance in this sector will focus on the involvement of Lampung communities in the implementation of new rules and guidelines for decentralized NRM.

USAID recognizes that sound environmental policies must incorporate input from local and national Governments, communities, business interests and other key players. Decentralizing authority for natural resource management and decision-making to local Government is an important and necessary step in promoting the sustainable use of Indonesia's natural resources.

## East Asia and Pacific Environmental Initiative (EAPEI)

EAPEI was established in FY 1999 to address critical environmental challenges and opportunities in the areas of forest and land use management, coastal and marine resources management, and environmental pollution. The goal of EAPEI is to promote environmental quality in East Asia and the Pacific by increasing environmental capacity and knowledge. The jointly managed USAID/Department of State program funds Government and non-Government organizations through an annual grant program. EAPEI activities have resulted in improved understanding of the root causes and impacts of fires in Indonesia; improved local, national, and regional fire detection, suppression, and management activities; and improved environmental planning and management. In FY 2000, EAPEI forest activities focused on improved land use and forest management practices, principally in Indonesia. Technical assistance from the U.S. Forest Service has raised the technical quality of the work of the Association of Southeast Asian Nations (ASEAN) Haze Coordination and Support Unit and facilitated information flows about other donors' fire suppression activities. Other forest policy activities supported under EAPEI have proven valuable in identifying policy reform opportunities and promoting decentralization, governance, and social equity.





## Latin America and the Caribbean (LAC): Forestry Highlights

The Latin America and the Caribbean (LAC) region contains nearly half of the world's biodiversity. Natural forest covers 47 percent of the total land area of the region. Almost all (95 percent) of the forests located in Central America, the Caribbean and South America are tropical (852 million hectares). The northern Amazon Basin and the Guyana Shield are home to the largest tract of intact, roadless forest in the world. The Amazon basin is also important in regulating the globe's "metabolism," accounting for approximately 10 percent of net terrestrial primary production. It also serves as a large sink for carbon, while also influencing to a great degree the global water cycle.<sup>8</sup>

With respect to the production of forest-related goods for trade, USAID developed technical guidelines for the sustainable harvest of non-timber forest products – along with an assessment demonstrating the economic benefits of reduced impact logging.

In recent years, the impact of natural disasters on the Latin America region has been devastating. The last El Niño event severely damaged the Andean sub-region, causing damage estimated at \$7.5 billion. Poor land use practices, deforestation, placement of housing and infrastructure in high-risk areas, and the lack of early warning systems, contributed to the heavy destruction and loss of lives.

The USAID/USFS partnership implements activities in important watersheds to mitigate future severe weather events. Reports for eight other LAC forestry programs are covered in Annex I.



### Bolivia Sustainable Forest Management Project (BOLFOR)

With 53,000,000 hectares of forests, Bolivia is rich in natural resources and has more forest area than Central America and Mexico combined<sup>9</sup>. In 2000, Bolivia became a global leader in sustainable tropical forestry, with nearly 1 million hectares of natural forests independently certified as economically, ecologically and socially well-managed. The value of certified forest product exports surpassed \$12 million. These natural resources can provide part of the basis for the country's economic growth, particularly in rural areas where poverty is greatest. Historically, deforestation in Bolivia has been extensive and largely uncontrolled. In 1993, the Governments of Bolivia and the United States established the Bolivia Sustainable Forest Management Project (BOLFOR) to reduce degradation of forest, soil, and water resources, and to protect the biological diversity of Bolivia's forests by building Bolivian public and private sector capacity to develop and implement programs for sustainable forest use.

Forest management in Bolivia has improved dramatically since BOLFOR's inception. BOLFOR works to strengthen Bolivia's public and private sector capacity to manage natural forest sustainability by focusing on three areas: 1) definition and application of a forest classification system; 2) identification of areas for municipal reserves and new concessions; and 3) participation in debates related to forest policy, laws, and regulations.

BOLFOR works with indigenous groups, municipal groups, a university forest, concessions, and private property owners, emphasizing support to community groups. BOLFOR supported six local producer groups and three indigenous groups in the development of forest management plans for over 285,000 hectares. With BOLFOR assistance, four local producer groups and two indigenous groups have strategic alliances with the forestry industry to sell their products, and six municipalities have successfully consolidated their forestry units.

By working closely with the Government, the private sector, universities, and civil society since 1994, BOLFOR has catalyzed dramatic changes in the forest sector. The Ministry of Sustainable Development established a new Bolivian forestry law based on greater transparency, more technically and financially independent Government institutions, greater civil society and municipal Government participation, and a voluntary certification program based on the Forest Stewardship Council (FSC) model. Since the passage of the new forestry laws, Bolivia has become a global leader in sustainable forestry with over 6 million hectares of forest under approved forest management plans.

In order to strengthen the link between Bolivian producers and markets, USAID supported the creation of the Amazon Center for Sustainable Forest Enterprise (CADEFOR). CADEFOR works cooperatively with BOLFOR in addressing the challenge of producing and selling certified wood products internationally. CADEFOR supports activities in product development, marketing, and the export of certified wood products.

## Honduras

Poor management of protected areas and watersheds in Honduras contributed to the high level of damage and destruction caused by Hurricane Mitch in 1999. In the two years following Mitch, USAID Honduras environment activities focused on the sustainable management of watersheds, forests, and protected areas. The Mission's support of conservation resulted in an increase of 7 protected areas under improved management, raising the total to 20, and an increase of 22,842 hectares under conservation. Positive impacts in protected areas under improved management include: average increases of 60 percent in the number of visitors in 10 parks and reserves; and a 50 percent reduction in forest fires. Forestry activities of the National Forestry Science School (ESNAC-IFOR) have resulted in improved technical capacity in watershed management in 20 municipal Governments and 43 communities.

## Brazil

The Amazon rain forest has the most varied plant life on Earth, consisting of about 50,000 different species.<sup>10</sup> Deforestation in the Amazon is a problem of global concern. Sustainable management of both cleared and forested areas in the Amazon is critical to stopping the destruction of the Amazon rain forest, to sequestering carbon-dioxide and avoiding carbon emissions, to preserving the biodiversity, and to providing economically viable alternatives for inhabitants of the area. Brazil is considered a major contributor to global greenhouse gas emissions because of deforestation and burning that take place extensively in the Amazon as well as the adjacent savanna grasslands.



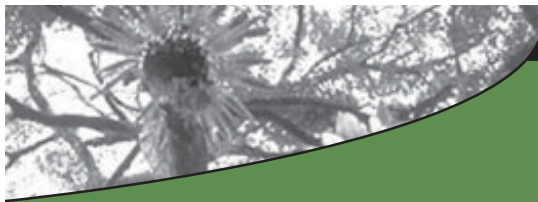
The Brazil Mission has implemented an array of activities to improve the management of forest lands in the Amazon basin to achieve the dual purpose of reducing greenhouse gas emissions and stemming biodiversity loss. The program is working to improve the management of protected areas, promote sustainable use of forested lands, and increase productivity on already degraded lands near forests. The Mission's strategic objective is "environmentally and socioeconomically sustainable alternatives for sound land use adopted beyond target areas." The focus of USAID/Brazil's environmental program is split evenly between biodiversity conservation and climate change and seeks win-win solutions to achieve sustainable management of natural resources and effective conservation in the Amazon and three other ecosystems: 1) the Atlantic Coastal forest; 2) the Pantanal wetlands; and 3) the Cerrado (savanna). USAID supports programs to inform Brazilian society on reduced-impact forest management, on-farm conservation opportunities and fire mobilization approaches.

USAID/Brazil implements activities that support its overall goal through long-term, sustainable solutions like training and capacity building in land use management, and strengthening the capacity of local individuals and institutions. For example, a total of 371 managers and practitioners were trained in sustainable forest management techniques in the only training program of its kind in the Brazilian Amazon.



## Mexico

Mexican forests contain the largest number of species of oaks and amphibians in the world. The nation has 25 million hectares of temperate forests and 24 million hectares of tropical forests.<sup>11</sup> In FY 2000, USAID Mission and Mexican Government counterparts officially announced their intent to expand Ajos-Bavispe National Forest and Wildlife Refuge and reclassify it as the Mavai Biosphere Reserve. USAID/Mexico awarded grants to support conservation in Mexico under its Wildfires Prevention and Restoration Program (WPRP). USAID and the Government of Mexico sponsored the "Regional Conference on Fire and Natural Resource Management" that brought together forest experts from the United States, Mexico, and Central and South America to address wildfire issues with approaches that ensure sustained attention to lowering the fire risk to natural areas. In FY 2000, the Mission also supported a forest inventory and assessment of land use change over the past 7 years and provided technical assistance to investigate the mitigation potential of post-fire restoration projects.



# Critical Themes in Tropical Forest Conservation

## Future Prospects: USAID Forestry Activities in FY 2002

USAID and its partners and local communities and organizations work to improve the management of forests and tree systems while enhancing the economic well being of those who depend on them. Forestry programs emphasize the analysis, design, demonstration, and dissemination of sustainable forest management practices and techniques to:

- (1) Reduce damage to forests by inappropriate wood harvesting techniques;
- (2) Promote rehabilitation of degraded land;
- (3) Increase local participation in forest and tree system management by devolving authority to communities;
- (4) Promote policy advances that lead to sustainable use of forests; and
- (5) Use integrated monitoring and assessment of forest resources to conserve biodiversity and improve forest health.

Agency goals in sustainable forest management and protection and conservation of tropical forests in FY 2002 include: focusing on the provision of forestry information, analysis and outreach; providing leadership and fostering partnerships with the private sector and industry leaders; and providing technical support to Missions and regions on topics such as training of local foresters in techniques of reduced impact logging, forest certification and its links to exported economic growth. For example, in FY 2002, the USAID Forestry Team will develop a Web-based information clearinghouse on forestry issues aimed at non-English speakers. In addition, the Forestry Team will host a workshop on mechanisms for monitoring illegal and destructive logging.

## Climate Change and Tropical Forests

The world's forests and other natural systems serve an important role in the planet's carbon cycle by storing a considerable portion of the global carbon stock. When these systems are altered due to activities such as timber harvesting, clear cutting, expansion of agriculture, or forest fires, the important function of absorbing and storing (that is, sequestering) carbon is removed. In addition, carbon that is stored in biomass both above and below ground is then released into the atmosphere over time through decomposition and decay. Between 1990 and 1995, about 14.6 million hectares of tropical rain forests were reported to be destroyed on an annual basis in the developing world.<sup>13</sup> Forest burning and unmanaged forest fires also cause carbon to be released back into the atmosphere, contributing directly to global greenhouse gas emissions. It is estimated that approximately 20 percent of annual global carbon emissions result from land use changes to forested ecosystems.

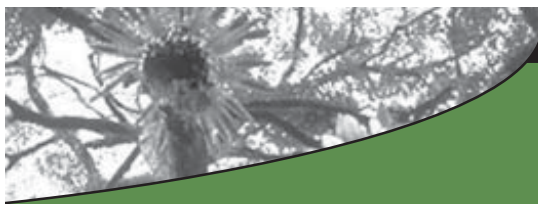
In 1998, USAID initiated a 5-year Climate Change Initiative (CCI) aiming to reduce greenhouse gas emissions in developing countries through interventions in energy, forestry, and biodiversity conservation. By FY 2000, USAID activities had protected more than 66 million hectares of the world's most critical forests in 70 countries located in Central and South America, Central Africa, Southeast Asia, and the Russian Far East, many of which are described in this report. Programs under the CCI also supported over 520 policy actions to improve forest and biodiversity conservation, as well as 930 capacity building activities involving local and national authorities, communities, and non-governmental organizations to enhance their technical capability, expertise, and information necessary to manage forest and agricultural areas more sustainably.



## Conflict in Forests

The relationship between illegal and unsustainable logging and conflict is complex and multi-dimensional. The environmental, social, and economic impacts of both illegal and unsustainable logging are similar. Both types of logging practices can deepen poverty, lead to significant declines in agricultural production, generate destabilizing population transfers, and aggravate tensions along ethnic, racial, or religious lines. Illegal and unsustainable logging have the potential to contribute indirectly to conflict by creating grievances associated with land expropriation, ecosystem degradation, high levels of corruption and rent-seeking behavior. In addition to its contribution to conflict, the revenue derived from illegal and unsustainable logging has been used by Government and rebel groups to finance civil wars.



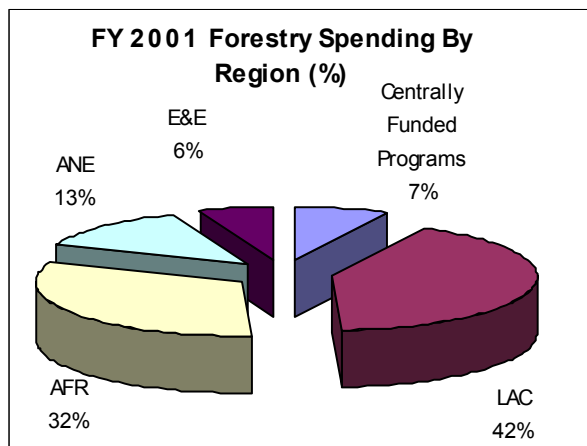


# USAID Forestry Funding

## USAID FY 2001 FORESTRY EXPENDITURE ANALYSIS

USAID recognizes the pivotal role tropical forests play in supporting biodiversity, fostering economic growth, and mitigating climate change impacts. The Agency supports forestry conservation and sustainable management activities around the globe. USAID does this in three ways - through centrally-funded activities, through regional programs, and via country programs managed by USAID field Missions.

**FIGURE 1**



The Agency's forestry programs are working successfully to meet continuing challenges in sustainable forest management. In FY 2001, the Washington-based Forestry Team provided over \$1.1 million in support to an Interagency Agreement with the United States Forest Service, as well as \$300,000 for research in sustainable forest management and alternatives to slash-and-burn agriculture programs. Recognizing the power of sharing hard-won lessons and best practices across regions, the Forestry Team invested \$310,000 in information-sharing workshops and publication materials. The USAID Biodiversity Team also has a multi-partner, forest-oriented Global Conservation Program, with an annual budget of \$7.7 million.

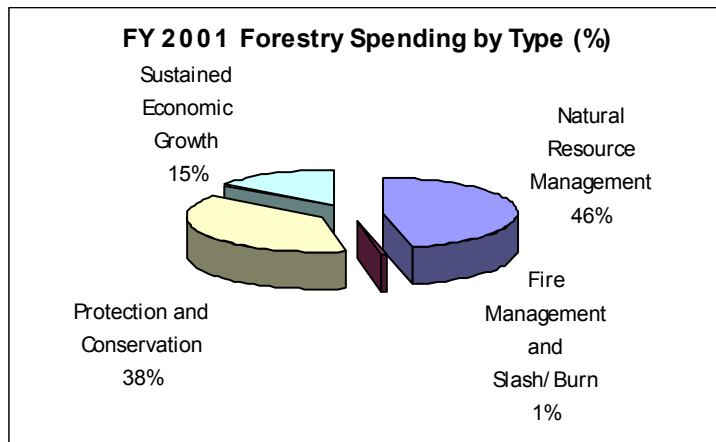
In FY 2001, the Latin America and the Caribbean Bureau had the highest total expenditure on forestry activities of any region, at 42 percent of total USAID forestry spending. Programs such as the Bolivia Sustainable Forest Program (BOLFOR) and the Parks in Peril Program demonstrate USAID's commitment to sustainable management of forest resources for rural economic empowerment,

as well as protection and conservation of some of the world's most important biodiversity-rich tropical forests. The tropical forests of the Congo and Madagascar's rich biodiversity make the Africa region critically important to Agency efforts to manage and protect tropical forests. Africa, as a region, was responsible for 32 percent of the Agency's FY 2001 forestry sector spending. In the Asia Near East region, Indonesia is a biodiversity hotspot of global importance. The Mission received over \$10 million in funding to commit to forest-related activities, including mapping of forest resources, institutional strengthening, and conservation efforts.

In the Europe and Eurasia region, the dense temperate Russian Far East forest (spanning over 11 time zones) is of critical global importance for its potential to sequester large amounts of carbon—mitigating climate change impacts—and because of its high number of endemic species. In Bulgaria, USAID is engaging in forest fire prevention and management activities to support programs that address fire prevention as well as increase capacity to respond to the increasing incidence of droughts and forest fires. In FY 2001, the Agency's Mission in Bulgaria spent \$250,000 on fire management support activities.

USAID spending on forestry activities can be grouped into four areas: 1) natural resource management; 2) protection and conservation; 3) sustained forestry management for economic growth; and, 4) fire management and mitigation of slash-and-burn activities. As Figure 2 shows, the Agency spent nearly half of its forestry budget on natural resource management activities in FY 2001. And, in keeping with global initiatives to protect and conserve major tropical forests and endemic biodiversity, USAID spent more than a third of its forest budget on conserving key forests and natural parks.

**FIGURE 2**



## USAID Forestry Activities and Programs FY 2001

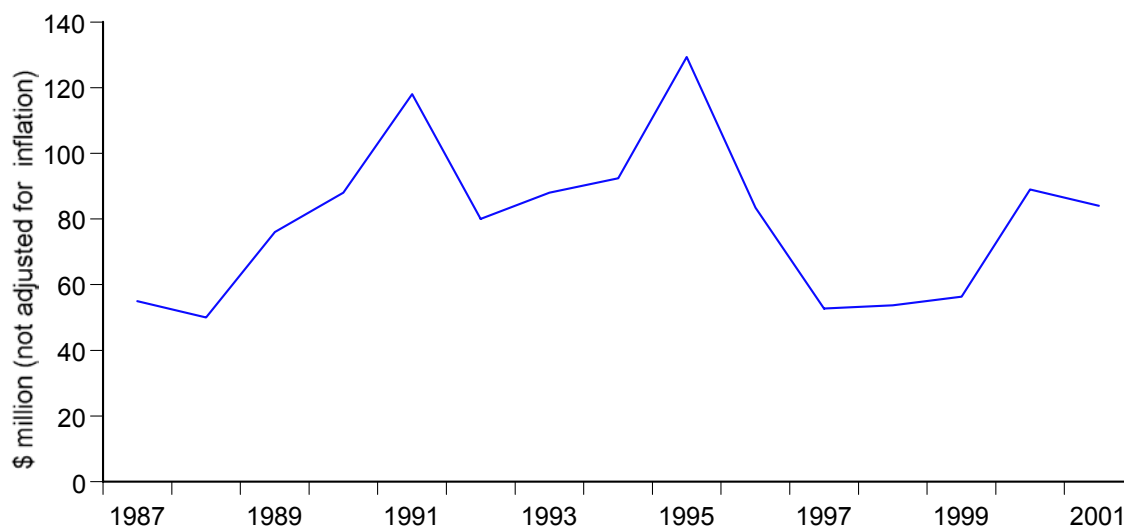
CENTRALLY-FUNDED PROGRAMS		FY2001 Obligated (U.S. \$)
U.S. Forest Service, International Programs	Interagency Agreement (IAA)	1,125,000
CIFOR	Sustainable forest management	100,000
ICRAF	Alternatives to Slash & Burn	125,000
TFF	Reduced-impact logging	50,000
EPIC IQC	Cofund LAC forestry workshop	50,000
BIOFOR IQC	Lessons learned Global forestry study	150,000
PADCO	Publications	110,000
Technical Staff	RSSA & AAAS Fellows	397,000
Global Conservation Program	Partners with WWF/TNC/CI/WCS/AWF	4,207,500
	<b>Total</b>	<b>6,314,500</b>
<b>LATIN AMERICA AND THE CARIBBEAN (LAC) REGION</b>		
Bolivia/Brazil/LAC/RSD	Forestry support (USAID Mission buy-in to Forest Service IAA)	800,000
LAC	Caribbean basin forestry advisor (Forest Service IAA)	50,000
LAC/RSD	Parks in Peril, LACEP, and alliance funds	3,050,000
G-CAP	PROARCA	1,317,000
Brazil	Sustainable Land Use Program	5,000,000
Bolivia	Natural Resource Program	6,210,000
Ecuador	Biodiversity Program, SUBIR	1,019,500
Guatemala	Natural Resource Management	3,930,000
Honduras	Natural Resource Management	3,623,000
Mexico	Critical Ecosystems Conserved	3,073,500
Mexico	Mission support (USAID Mission buy-in to Forest Service IAA)	300,000
Mexico	Environmental technical specialist (Forest Service IAA)	185,000
Panama	Sustainably Manage the Canal Area	3,700,000
Paraguay	Sustainable Management of Globally important ecoregions	1,000,000
Peru	Improved Sustainable Forest Management of Target Sectors	1,621,000
	<b>Total</b>	<b>34,879,000</b>
<b>AFRICA (AFR) REGION</b>		
Central African Regional Prog for the Environ.	CARPE	2,800,000
Africa Regional	Forestry support via CARPE (Mission buy-in to Forest Service IAA)	210,000
Africa Sustainable Development	Accelerated Adoption of Improved NRM Policies and Practices	1,000,000
Africa Sustainable Development	Tree Crops	250,000
Guinea	Sustainable Natural Resource Management	2,562,500
Kenya	Improved Nat. Res. Mgmt. in Targeted Biodiv. Areas	2,112,000
Madagascar	Biologically Diverse Ecosystems Conserved	9,183,000
Malawi	Incr. Sust. Use, Conserv. & Mgmt of Renew. Nat Res	350,000
Namibia	Incr. Benefits Received by Disadvantaged from SFM	3,800,000
Tanzania	Adoption of Sustainable Forest Management	3,070,000
Uganda	Critical Ecosystem Conserved	1,432,200
	<b>Total</b>	<b>26,769,700</b>
<b>ASIA AND THE NEAR EAST (ANE) REGION</b>		
Bangladesh	Improved Management of water and forests	200,000
Indonesia	Strengthened & Decentralized NRM	10,400,000
Nepal	Incr. Sust. Prod. & Sale of Forest & High-Value Agr.	300,000
Philippines	Environmental Management Improved	100,000
	<b>Total</b>	<b>11,000,000</b>
<b>EUROPE AND EURASIA (E&amp;E) REGION</b>		
Albania	Private Forestry Development Project (APFDP)	619,807
Russia	Forest Resources and Technologies + ROLL projects	4,124,000
Bulgaria	Fire Management Support	250,000
	<b>Total</b>	<b>4,993,807</b>
<b>TOTAL FORESTRY EXPENDITURE IN FY 2001</b>		<b>\$83,957,007</b>

*Note: The figures above are unofficial budget estimates provided by USAID Bureaus and overseas field Missions*

# Historical Trend Analysis

## Trends in USAID Forest Projects

During the past 15 years, forest management and conservation has been an important part of USAID's efforts to protect the global environment. For the purpose of this analysis, forest projects are broadly defined as activities and programs related to sustainable forestry, protected areas management, and the conservation of biodiversity in forest ecosystems. From 1990-2001, forest project expenditure averaged approximately \$80 million annually. This was about 15 percent of the Agency's environmental spending (Figure 3<sup>12</sup>).

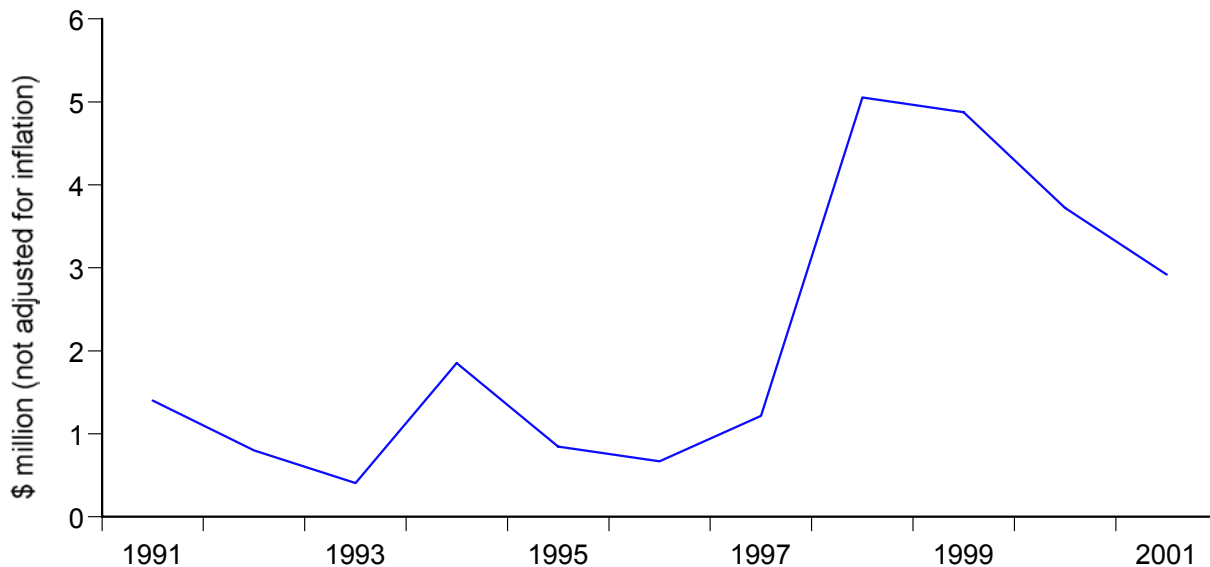


**FIGURE 3. FOREST-RELATED EXPENDITURE BY USAID.**

Figure 3 reflects an increase in USAID forestry expenditure in the late 1980s - a result of the increasing importance of tropical forests in the global environmental agenda. As one of the world's leading donor agencies, USAID is often at the forefront of designing and implementing projects that address emerging development objectives and themes. In the late 1980s, the development world began to actively promote the protection and sustainable use of tropical forests. Indeed, sustainable tropical forest management and conservation was a key theme of the 1992 United Nations Conference on Environment and Development.

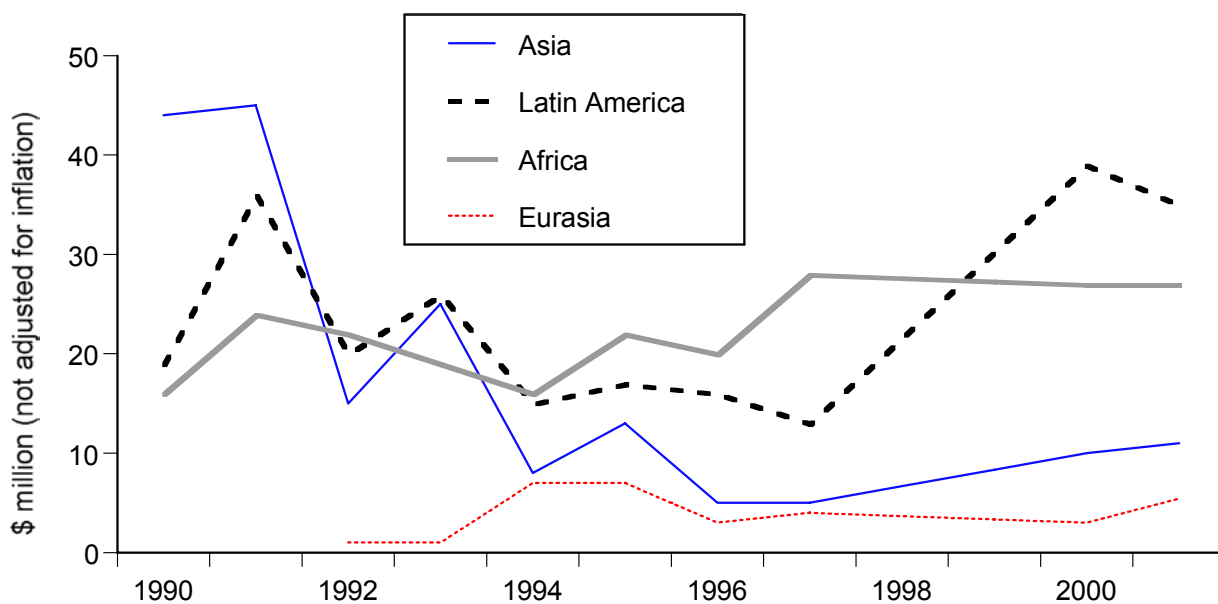
In the mid-to-late 1990s, total USAID forestry expenditure began to fall, slipping from \$118 million to \$53 million (not adjusted for inflation). This decline is mostly attributed to a reduction in the overall USAID budget in the 1990s, which resulted in less funding and fewer technical personnel for forestry projects. In addition to Agency budget reductions, Executive and Congressional priorities shifted to new areas such as democracy and governance and human rights issues.

The recent increase in forest-related expenditure is predominantly due to an increase in biodiversity-related activities and programs. Forestry projects per se have not experienced a substantial increase in expenditure. Much of USAID's assistance to community forestry flowed through grants to non-governmental organizations focused on conserving forest biodiversity. On the other hand, USAID support for Government-to-Government assistance, as well as for international research cooperation was increasingly channeled through the U.S. Forest Service. From 1997 to 2001, funding for the U.S. Forest Service's International Programs (Interagency Agreement with USAID) experienced a sharp increase, followed by a slow fall (Figure 4).



**FIGURE 4. FUNDING TO THE US FOREST SERVICE'S INTERNATIONAL PROGRAM:**

Over the past decade, trends in forest funding varied greatly between the Agency's four major regions of operation (Figure 5) - Asia Near East, Latin America and the Caribbean, Africa, and Eastern Europe and Eurasia. Overall, the Africa region has seen an increase in forest expenditure, whereas Asian funding levels are decreasing (Figure 5). Funding decreased in Asia as large projects in the Philippines and regional forestry initiatives were completed. Forestry expenditure in Africa increased in the late 1990s due to the initiation of regional programs such as the Central African Regional Program for the Environment (CARPE), aimed at protecting the tropical forests in the Congo Basin. Both the Mozambique and Madagascar USAID Missions have also increased spending for forestry-related programs and activities.

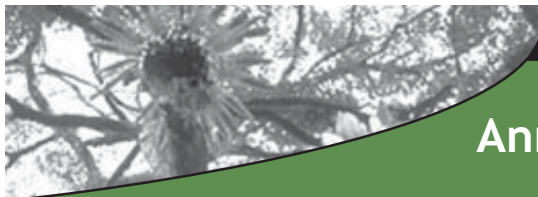


**FIGURE 5. SPENDING ON FOREST-RELATED PROJECTS BY USAID IN EACH OF THE FOUR MAJOR REGIONS 1990-2001.** Data at the regional level are not available for 1998 and 1999, and are extrapolated for these years.

The Latin America and Caribbean (LAC) region is home to a significant amount of the world's tropical forest area, and USAID has supported forest projects over the past 10 years. Although forest programs in Haiti have been reduced, USAID continues a strong forest focus in Bolivia, Brazil, Ecuador, Guatemala, Honduras, Mexico, and Panama.

The Eastern Europe and Eurasia region began receiving funding in the early 1990s, and has since leveled off at approximately \$4 million per year. USAID worked in many of the former Soviet republics in the Eastern Europe and Eurasia region, and currently implements programs in Bulgaria, Albania, and predominantly, the Russian Federation.





## Annex I: Additional Forestry Programs

In addition to the forest programs already highlighted in this report, below are further examples of accomplishments made by USAID Forestry programs in sustainable forest management of tropical forests around the world. This is not a comprehensive, but rather illustrative, listing of USAID-supported forestry activities.

### CENTRALLY-FUNDED FOREST PROGRAMS

#### BIODIVERSITY AND SUSTAINABLE FORESTRY (BIOFOR)

The *BIOFOR IQC* delivers short-term, medium-term, and long-term, quick-response technical assistance to conserve biodiversity and to sustainably manage forests and other key, renewable natural resources in USAID-assisted countries in all of the Agency's target regions<sup>14</sup>. BIOFOR projects have been implemented across the globe, including Uganda, Nicaragua, Bulgaria and Ecuador. There are two prime contractors who implement activities in support of BIOFOR—Associates in Rural development (ARD) and Chemonics International. The program leverages support for—and promotes—biodiversity conservation, forest and watershed management, and mitigation of global climate change. BIOFOR supports strengthened institutional capacity, improved policies and the development of enabling environments that promote sound management of natural resource and sustainable economic growth. The program can be categorized into four crosscutting areas: (1) institutional development; (2) policy analysis and support; (3) research and analysis; and (4) communication for project management.

### USAID FOREST PROGRAMS IN AFRICA

#### INITIATIVE FOR SOUTHERN AFRICA

Southern Africa is one of the world's richest depositories of flora and fauna, most of which frequently transits national frontiers. These resources represent an enormous source of potential wealth. Southern Africans, with assistance from USAID, are beginning to address regional environmental challenges by creating Trans-boundary Natural Resource Management Areas (TBNRMAs). TBNRMAs are large tracts of land straddling the boundaries of two or more countries that have a large-scale ecosystem in common. In terms of forestry, riparian forests act as a natural buffer against contamination and sedimentation, protect riverbanks against erosion, serve as a reservoir for plant biodiversity, provide a habitat for diverse wildlife and provide for biological corridors when these are continuous. TBNRMAs conserve biodiversity by protecting and improving the livelihoods of people living in the buffer zone through sustainable natural resource management (NRM). Several Governments have agreed to establish TBNRMAs, constituting a major step toward achieving sustainable cooperation in shared NRM. In FY 2000, the *Initiative for Southern Africa* supported three TBNRMs: (1) Limpopo River Basin (Botswana, Mozambique, South Africa, and Zimbabwe); (2) Gaza-Kruger-Gonarezhou (Mozambique, South Africa, and Zimbabwe); and, (3) the Four Corners (Botswana, Namibia, Zambia, and Zimbabwe). With Governments creating a positive policy environment, both the private sector and rural Southern Africans living in or near TBNRMAs will benefit from the economic opportunities presented by the sustainable management of these ecosystems.

#### GUINEA

The U.S. interest in supporting Guinea's development is based on the country's role as a positive and stabilizing force in the West Africa region. Guinea is accommodating the largest refugee population in Africa, coming from Liberia and Sierra Leone. This has created a serious environmental threat to the already stressed and fragile forest ecosystems, which if left unchecked, will result in significant environmental damage. The NRM activities assist small landholders to conserve the natural resource base by investing in more profitable and less destructive agricultural and NRM practices. The approach helps build the capacity of local support organizations, transfer appropriate practices to farmers, and empower local populations to manage their resources. The desired end-products are sustainable increases in farm production and productivity, along with improved, participatory management of forest and other natural resources. The USAID program also provides assistance to boost access to agricultural markets, stimulate non-agricultural enterprises, and help implement progressive resource-related policies at the local level. In May 2000, with input from USAID, the Government of Guinea (GOG) adopted a new Law on Protected Areas in Equatorial Guinea and created the National Protected Area System. The Republic of Guinea has 113 national classified forests. The National Directorate of Waters and Forests (DNEF) is legally responsible for their management. Many related areas have become degraded,

due to years of uncontrolled animal grazing, wildfire, clandestine timber cutting, and illegal encroachment. Therefore, to stabilize and improve the condition of these forests - to ensure that they meet national objectives for the protection of watersheds, biological diversity, and provision of needed forest resources - new management approaches are needed. In 1999, DNEF, representing the GOG, signed the first 5-year contract with an inter-village committee to co-manage the Nialama Forest. This 10,000-hectare Nialama classified forest typifies the current degraded condition of many forests in Guinea. Through USAID, two additional, classified forests covering 40,374 hectares were introduced to this agreement in FY 2000 to help empower local communities to share with the Forest Service the responsibilities for and the benefits of sustainable forest management. The total area of natural forests where sustainable management planning has begun increased from 10,266 hectares in 1999 to 50,761 hectares in 2000, including 121 hectares of communal forests. Approximately 30 villages and hamlets, and more than 5,700 people surround the forests. Using co-management techniques, the implementing partners were able to help over 3,200 farmers in target zones apply sustainable practices that improved productivity and conserved the natural resource base on 2,083 hectares.

## KENYA

In Kenya, conservation is primarily focused on national parks and game reserves, which comprise only 8 percent of the country's landmass. The Conservation of Resources through Enterprises (CORE) project addresses the policy, cultural, institutional and human resource capacity challenges of making wildlife and habitats conservation valuable to local communities and contiguous areas.<sup>15</sup> This program is a follow up to the Conservation of Biodiverse Resource Areas (COBRA) project funded by USAID between 1993 and 1998. Unlike COBRA, the CORE program has adopted a multi-institutional approach in its implementation. This approach combines the capacities, expertise, and experience as well as the strengths of a good mix of Government, private sector and non-government organizations. The projects promote improved NRM by increasing benefits from conservation to the affected communities. Partnerships established under the previous project (COBRA) were strengthened and capacity of community-based NRM-related organizations built, resulting in increased NRM-related investments, community incomes, and jobs created. CORE works with communities in 10 new sites, targeting over 35,000 hectares for conservation, an indication that communities are taking active steps to increase conservation in their areas.

## MALAWI

Malawi's National Forest Policy (NFP) has been developing since the early 1990s, with a concerted development phase during 1999 and 2000. USAID Malawi has implemented a comprehensive policy and legislative reform program aimed at increasing the community and private sector involvement in NRM. These policies have shifted the rights and responsibilities of managing the country's natural resources from the Government to the concerned communities and end-users. This shift in policy direction is already showing increased community participation and is expected to improve Malawi's natural resource conservation and management capacity. Pricing mechanisms for forestry products were also approved by the Ministry of Natural Resources and Development Affairs. The service programs aimed at extending improved NRM technologies have continued to strengthen partnership development with positive results. The beneficiaries of these results include more than 80 percent of the rural population, which depend upon the natural resource base for productivity. The number of farmers that have adopted improved soil conservation practices and sustainable NRM has increased significantly over the years. Improved forestry and livelihoods are given a solid policy framework in the Constitution, and the National Forest Policy and the Forest Act.

## UGANDA

Uganda is home to lush rainforests that expand east along the Congo Basin, and it is habitat to a fascinating array of plants and animals, including an astonishing number of primate and bird species that few other places can match. Poverty and excessive population growth in adjacent areas challenge conservation efforts in protected areas. USAID Uganda contributes to the conservation of tropical forests by supporting improved management in the Virunga montane forests - a section of a transboundary ecosystem stretching into the Democratic Republic of Congo (DRC) and Rwanda. Effective management in these forests sustains over one-half of the world's population of mountain gorillas. The gorilla population has increased from about 320 to about 355 individuals over the last 10 years. Through grants to the International Gorilla Conservation Program, a fourth gorilla group was habituated in FY 2000 and was prepared for tourist viewing. The potential now exists for mountain gorilla tourism in Uganda to generate over \$4.4 million in annual revenue to the Uganda Wildlife Authority (UWA). Despite civil unrest and insurrection in the north and east; the legacy of the Bwindi massacre of March 1999, and the outbreak of the Ebola virus in mid-year, which caused widespread cancellations of

bookings, eco-tourism revenues for UWA and the Forest Department increased by 30 percent over 1999 levels, and ecosystems support showed a 46 percent increase in revenue. Uganda's Agro-forestry Research Network for Africa (AFRENA) is active in the montane agricultural zones of the Kigezi Highlands and in the lakeshore coffee-banana production systems in the Mukono District near the Mabira Forest. In FY 2000, there was a marked increase in the land base under improved management with 19 protected area management plans now in place. Implementation of these plans is in process and will continue in FY 2001. AFRENA established a network of over 430 on-farm trails and nurseries that serve as farmer-selected research and extension sites examining issues such as wood production, soil fertility enhancement, integration of high-value tree crops, increased fodder tree diversity, propagation of indigenous high-value tree species and increased local supply of germplasm. In collaboration with Africare and Heifer Project International (HPI), diffusion rates of AFRENA technologies are increasing and producing results in the Kigezi Highlands as farmers establish fodder banks, boundary plantings, rotational woodlots to improve soil fertility in cultivated and fallow lands, and grow trees on-farm to improve food security.

## USAID FOREST PROGRAMS IN ASIA AND THE NEAR EAST

### BANGLADESH

A lack of general environmental awareness, degradation of productive ecosystems as a result of poor resource management, and the needs of an expanding population have all placed severe stress on the natural resources of Bangladesh. Recent studies indicate that half of all forested lands have been cleared in the past 30 years. The objective of USAID is to demonstrate to the Government of Bangladesh and its communities an adaptive model for improved, participatory management of tropical forest resources. This approach involves all resource users and promotes interventions that help nature do its job in providing a sustainable yield. In FY 2000, Bangladesh became the first country to successfully complete a debt reduction agreement with the United States under the landmark Tropical Forest Conservation Act (TFCA). USAID is taking the lead role in assisting the negotiation and implementation of the TFCA trust fund agreement as part of its activities. Signing of the Debt Exchange and Tropical Forest Conservation Agreements in September 2000 set the stage for moving ahead with the forestry component of the USAID Mission's Strategic Objective for environment. During FY 2001, USAID developed an overall strategic framework that integrates the tropical forest conservation work.

### NEPAL

Over 80 percent of the population in Nepal is rural and depends on local natural resources - forests, water, soil-for subsistence--and revenue. For many individuals and communities, governing and using their natural resources is the most realistic and most tangible means for them to exercise their rights, affect public affairs, and gain greater control over the direction of civil society. Progress has been made to decentralize and improve local control over the management of resources. The distribution of power over the management of these resources is a major expression of substantive rural democracy. In addition to leading to better governance and exercising control over the management of natural resources and their use, decentralization contributes to the potential for increased economic benefits for all stakeholders. USAID has supported groundbreaking activity in this area. The Nepal experience is often held up as an example for others to replicate both regionally and globally. In many cases, local communities have taken the organizational steps to develop resource management groups and producer groups to further solidify and implement their management rights. In FY 2000, nearly 1.4 million poor people benefited from higher incomes, better nutrition, and increased access to markets as a result of USAID-funded programs. The majority of USAID's activities are located in the mid-western and western parts of Nepal and in the southern "Terai" area. Sales of high-value agricultural, livestock, and forest commodities in this target area increased from \$30 million to \$36.38 million, exceeding the target by over \$4 million. A total of 265,980 farm and forest households in the target area are engaged in high-value agricultural or forestry production, a figure that surpasses the FY 2000 goal by 5,980 households. The annual production of biomass was 2.785 million cubic meters. While this fell slightly short of the projection of 2.8 million cubic meters, the target for this indicator had been increased by 300 percent in 1999 and increased again for the year 2000 based on better than expected performance. Four hundred and ninety-two forest and irrigation user groups with approved management plans were formed in FY 2000, which brings the cumulative number of groups formed under USAID programs to 2,183 versus a target of 1,800. New micro-enterprises are using non-timber forest products and are increasing incomes, particularly for women. USAID assistance has helped to create market linkages for new

technologies that improve production and, working through the Agro-Enterprise Center at the Federation of Nepalese Chambers of Commerce, has identified markets for forest and high-value agricultural products in Nepal and the South Asia region. Knowledge of improved technologies is increasing production and the competitiveness of Nepalese farm and forest enterprises in both local and export markets. At the national level, USAID is continuing to support the development and adoption of export-oriented trade policies and the implementation of sound natural resource legislation that expands opportunities for community and private management of forest and water resources. To achieve these goals, USAID works with and through non-governmental organizations (NGOs), private firms and Government counterparts. Community groups are given training and technical assistance, which increases their capacity to help themselves. Evaluations and direct observations indicate that community groups are using a portion of the increased incomes from community managed forests and irrigation schemes to build roads, potable water systems, and schools and to undertake other types of self-help development activities.

## USAID FOREST PROGRAMS IN LATIN AMERICA AND THE CARIBBEAN

### UNITED STATES-LATIN AMERICAN AND CARIBBEAN ENVIRONMENTAL PARTNERSHIP (US-LACEP)

The *United States-Latin American and Caribbean Environmental Partnership (US-LACEP)* works to improve environmental performance of targeted LAC businesses and communities through the introduction and promotion of replicable market-based sustainable development tools. US-LACEP advances natural forest management through the development of technical guidelines, investment analysis, and stakeholder dialogue. Over the next 2 years, the program will enhance understanding of, and commitment by, LAC Governments to address critical trade-related, environmental issues through further support of policy/investment analysis and stakeholder dialogue. Broader dissemination is planned for USAID-supported guidelines for sustainable harvest of non-timber forest products, an analysis of the economic benefits of reduced impact logging (RIL) compared to conventional logging, and lessons learned from an ongoing review of USAID support for natural forest management in the LAC region. The RIL analysis has already contributed to increased demand for training in Brazil as it was shown that in some cases RIL can be 20 percent more profitable than conventional logging. There is considerable demand for the non-timber forest products guidelines on the part of NGOs, industry, and LAC governments. The LACEP program intends to successfully introduce replicable models for environmentally sound development in the areas of forest management, water management, and clean production into at least one LAC sub-region/trading bloc.

### PARKS IN PERIL PROGRAM (PiP)

The Parks in Peril (PiP) program is among the Agency's most successful and important conservation activities. The PiP program is a partnership among USAID, The Nature Conservancy, local NGOs, and local Governments that improves the protection of 37 critically threatened LAC national parks and reserves containing biodiversity of global significance. USAID has graduated a total of 21 sites covering approximately 8 million hectares from the program. Additionally, the institutional, administrative and management capacity of over 25 local NGOs has been significantly strengthened to ensure sustainable long-term management of parks and reserves. Since its inception, the PiP program has protected over 13.6 million hectares of natural habitat that contain some of the world's most important biodiversity. The PiP program continues to be a leader in developing sustainable financing mechanisms for protected areas, strengthening local NGO capacity, and developing management tools for measuring progress and prioritizing conservation interventions. In 2001, phase two of the LAC PiP program was launched. Phase two takes advantage of the partners and sites strengthened in the first phase to support the creation of national systems of conservation areas and to promote the effective management of cross border critical areas. The PiP program is at the forefront of cutting-edge policy initiatives, including mechanisms such as water-use fees, conservation easements, private lands conservation, valuation of ecosystem services, mining mitigation, and carbon sequestration. For example, the Central and South West Company, a Texas-based utility, donated \$5.4 million to create the Guaraqueçaba Climate Action Project in Brazil. This support will fund activities aimed at creating a permanent, private, natural reserve by acquiring, restoring, and protecting 9,090 hectares of the Atlantic Forest, resulting in long-term carbon sequestration in the area, among other environmental benefits. Early estimates show the total carbon benefit to be approximately 1 million metric tons. PiP was successful this year at elevating the status of sensitive lands throughout LAC. Through PiP efforts at Ajos-Bavispe National Forest and Wildlife Refuge, Mexico, the U.S. and Mexican Governments are working toward declaration of the area as a Biosphere Reserve, expanding the reserve from 207,400 hectares to over 800,000 hectares, and committing to a joint effort to protect the San Pedro River watershed on both sides of the border. PiP is expanding its support to the entire Biosphere Reserve. The PiP program benefits local, rural people who live in areas

surrounding LAC parks and who depend on the sustainable use of natural resources for community development and ecotourism activities. The program benefits the urban population where parks serve as watersheds for major cities (as examples, Chingaza Park for Bogota, Colombia; Podocarpus Park for Loja, Ecuador; Tariquia Reserve for Tarija, Bolivia). U.S. citizens also benefit by the protection of genetic sources for future medicines and crop varieties, and by the storing of carbon in tropical forests and mangroves.

## **REGIONAL ENVIRONMENTAL PROGRAM FOR CENTRAL AMERICA (PROARCA)**

The Regional Environmental Program for Central America (PROARCA)/Central American Protected Areas System (CAPAS) supports protected areas management and biodiversity conservation efforts in Central America. The 5-year PROARCA Indefinite Quantity Contract (IQC) implemented by two contractors: Associates in Rural Development and Chemonics International, ended activities in September 2001. The program provides natural resource management policy expertise, as well as access to financial and technical assistance.<sup>16</sup> PROARCA aims to strengthen the agenda of the Central American Commission for Environment and Development (CCAD). CCAD is the lead regional partner in implementation of PROARCA to assure Central American ownership and leadership in line with the mandates of the 1994 Central America-U.S. Joint Accord (CONCAUSA) and the Central American Alliance for Sustainable Development. PROARCA supports increased effectiveness in regional stewardship of the environment and key natural resources in target regions of Central America, and it focuses on three key results: improved consolidation of the Central American protected areas system; increased local empowerment for stewardship of the environment and natural resources in target areas; and harmonization and strengthening of Central American environmental policy frameworks.

## **PERU**

Peruvian forests, which cover 60 percent of the country, are some of the richest in the world, containing up to one-third of South America's bird species and one-quarter of its mammal species, as well as an abundance of flora.<sup>17</sup> To respond to environmental threats in Peru, USAID works to improve environmental policies and promote private sector participation. With the support of USAID, 10 of Peru's important natural protected areas have achieved management improvements in the areas of: legal status; administration; budget; strategic planning; level of community participation; use of natural resources; and management of conflicts and threats. These improvements are attributable mainly to USAID-supported activities and the stable leadership at the National Institute for Natural Resources (INRENA) over the past two years. The Biodiversity and Sustainable Forestry (BIOFOR) activity completed ecological, economic zoning analyses for Madre de Dios, one of the richest biodiversity zones in Peru; provided critical leadership and technical assistance for a Master Plan for the Pacaya Samiria National Reserve; awarded 13 grants for natural resource activities in various parts of Peru; and completed a training program in institutional development for locally-based NGOs. In future activities, the Government of Peru partner institution, INRENA, and other local institutions will continue to receive Mission support to improve the management of national parks, create communal reserves for isolated indigenous people, develop master plans for various natural protected areas, and award scholarships for economic valuation of natural resources. USAID continues to support environmental and natural resources policy and legislative reforms, including the forest law and draft regulations and laws to raise the National Environment Council (CONAM) to ministerial level and strengthen its arbitration authority. The forest law requires management plans for all forest concessions.

## **PARAGUAY**

Paraguay has one of the highest rates of deforestation in the world, losing 10 percent of its remaining forest cover every year, which threatens the future of unique regional ecosystems.<sup>18</sup> With the support of USAID, Paraguay is developing ecoregional conservation plans, which will include a series of stakeholder analyses, biodiversity and socioeconomic assessments, cross-border planning workshops, and an inter-governmental review of ecoregional conservation plans. More land has been added to the protected areas system, while viable economic alternatives to deforestation and loss of biological diversity have been developed. The Paraguay National Park Directorate officially recognized two private reserves managed by a local NGO. A new private reserve that protects an important ecozone between forested and wetland regions was also added to the USAID-funded program.

## **ECUADOR**

Ecuador is one of the world's most biodiverse countries, with about 18 percent of the world's total bird and orchid species; almost 10 percent (415) of the planet's amphibian species; and 8 percent (369) of its mammals.<sup>19</sup> USAID Ecuador worked with 61 indigenous, Afro-Ecuadorian and other communities to support improved management practices, and more than 1,313,000 hectares are now under participatory management. Since 1998, USAID has helped to halve deforestation in the biologically rich buffer zone of the Cotacachi-Capayas Reserve. Agency-funded organizations broke new ground with the

development of environmentally sound guidelines for farm-forest management. The Community Forestry Network had its first timber sales, following environmental guidelines for harvesting and treatment. Under the Parks in Peril (PiP) program, important progress was made in consolidating Podocarpus National Park, and in encouraging key local decision-makers (for example, mayors, church and army officials, civil society) to form a high-level park management committee to protect the Park's forest cover, and thereby the city of Loja's water supply. PiP also made important steps towards sustainability by developing a long-term financial plan and user fees for Machallila National Park.

## GUATEMALA

Guatemala's ecosystems are small in area but exceptionally diverse. Agriculture, forestry, and fishing provide more than half of Guatemala's jobs and more than half of its export earnings.<sup>20</sup> USAID Guatemala's environmental program: (1) disseminates "best management practices" for sustainable agriculture, timber, and non-timber forest products, ecotourism and other enterprises; (2) affects the policy environment; and (3) supports responsive institutions and increased local participation in decision-making related to natural resource management. USAID aided the Government of Guatemala in the development of a strategy to combat forest fires, and to prepare legal and technical analyses leading to the creation of the new Ministry of the Environment. Community-based forest management activities have been implemented on 392,056 hectares, generating \$0.5 million in revenue and 22,000 labor days benefiting 5,000 people. Guatemala now ranks among the world's leaders with 100,026 hectares of community-based forest being "green seal" certified, and 69 percent of the timber production exported to international markets.

## USAID FORESTRY PROGRAMS IN EUROPE AND EURASIA

In addition to its work to conserve tropical forests worldwide, USAID is also implementing activities in the temperate and boreal regions of Europe and Eurasia. While not part of the FAA 118 tropical forest requirement, these activities are important for mitigating global climate change and supporting economic growth in the countries of transition. Two of the most significant forestry activities in 2001 in the Europe and Eurasia region were carried out in Russia and Albania.

## RUSSIA

Russia has a total forested area of approximately 764 million hectares; over 22 percent of the world's forested area. Seventy-eight percent of this forest is located in the Russian Far East and Siberia. These forests represent one-seventh of the Earth's carbon pool, which affects global climate change. There is also globally important plant and animal diversity and habitat found in these forests. Unfortunately, illegal logging and unsustainable forest management are threatening the forests of the Russian Far East.

USAID's FOREST Project is a 5-year (2000-2005) \$20 million initiative. It aims to reduce the threat of global climate change and conserve biodiversity by helping Russia to increase forest fire prevention, and improve pest control, forest policy, and sustainable use of timber and non-timber forest products. The FOREST Project is developing a comprehensive approach to address forest use and management challenges. Project components include: Forest Fire Prevention; Forest Health and Pest Management; Non-Timber Forest Products and Secondary Wood Processing; Biomass; Forest Policy and Legal Reform; Applied Forestry Research; and Forest Grant/Loan Program.

In 2001, USAID helped introduce, for the first time ever, a system for monitoring Siberian Moth outbreaks using pheromone traps in Siberia. The technology has been proven around the world to increase the ability to predict pest outbreaks effectively over large territories and at minimal cost. As the Siberian moth devastates millions of hectares of Russian forests each year and represents a potential danger to countries importing Russian timber, including the United States, it is extremely important to know where and when the outbreaks are expected to take place. The new pest monitoring and outbreak prediction tool can provide the necessary information needed by the Russian Ministry of Natural Resources to combat such outbreaks.

## ALBANIA

Albania is rich in forest and pasture resources. Forests cover 36 percent of the country's territory; however, most of these forests have low productivity from overuse. At the same time, a significant percentage of the Albanian population depends on forests and pastures for their livelihood.

From 1994-2001, USAID implemented the Albania Private Forestry Development Program to assist the Government of Albania (GOA) to respond to the alarming trend of forest and pasture degradation that threatened rural livelihoods throughout the country. The project aimed to increase Albanian rural household incomes, while alleviating and ultimately reversing forest degradation. The project focused on encouraging and supporting the development of sustainable, private-sector forest management on privately-owned lands, communal forests and pastures. The project, which ended in 2001, was highly successful and achieved significant results. Examples include:

- The development of a National Forests and Pastures Strategy approved by the Council of Ministers. A measure of the impact was the GOA's decision to transfer 40 percent of the national forest estate to local communities.
- The establishment by farmers of more than one hundred demonstration sites in 9 districts with over 400,000 trees planted. Farmers contributed 80 percent of the cost of seedlings and all the labor costs for the plot establishment. More than half of the farmers who started with this program in 1996 have expanded their sites in subsequent years at their own expense.
- The transfer of Government controlled forests to over 300 villages in 48 komunas resulting in improved, locally-controlled management of more than 55,000 hectares of forests and 7,000 hectares of pasture. This has benefited almost 22,000 families in Albania.

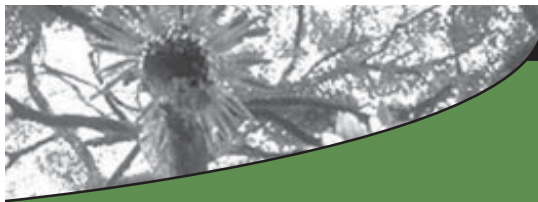
## OTHER PROGRAMS-U.S. DEPARTMENT OF TREASURY

### TROPICAL FOREST CONSERVATION ACT (TFCA)

Through the Tropical Forest Conservation Act (TFCA), the United States is authorized to provide debt relief for low-income and medium-income countries with tropical forests to conserve these endangered forests. To date, Congress has appropriated \$26 million for this Act, including \$13 million in FY 2001. Funds for TFCA are appropriated to the Treasury Department. USAID serves on the Board that manages the TFCA, and plays a key role in partnering and cooperating with other federal agencies, the private sector, and NGOs in the management and implementation of the TFCA. USAID supports the TFCA by: (1) Collaborating with other federal agencies to create debt agreements; (2) Taking the lead in on-the-ground implementation through USAID field Missions once the debt deals are completed; and (3) Housing the TFCA/EAI Secretariat. Many of the most pristine and diverse tropical forests in danger of degradation and deforestation are in developing countries that have substantial bilateral debt. The United States has an innovative mechanism to address concurrently the debt of these developing countries and the conservation of their tropical forests. TFCA is modeled after the successful *Enterprise for the Americas Initiative (EAI)*. Under the TFCA, eligible countries, negotiating with the U.S. Government, reduce a portion of their 'eligible' debt through one or more of the following options: (1) a debt buy-back; (2) a debt swap with an eligible third party; or, (3) a debt restructuring. Once agreements have been completed, Tropical Forest Conservation Funds generally are established and run by boards of directors from private and public organizations. Open grant competitions are held for eligible tropical forest conservation activities.







## Annex II: Partnerships

Following is a list of key U.S. Agency for International Development (USAID) partners who cooperate with the Agency on forestry-related activities and programs worldwide.

### United States Government Agencies

U.S. Department of Agriculture (USDA)  
U.S. Coast Guard (USCG)  
U.S. Department of Energy (DOE)  
U.S. Department of the Interior (USDI)  
U.S. Environmental Protection Agency (USEPA)  
U.S. Forest Service (USFS)  
U.S. Fish and Wildlife Service (USFWS)  
U.S. Geological Survey (USGS)  
U.S. National Oceanic and Atmospheric Administration (NOAA)  
U.S. Peace Corps (USPC)

### Foreign Government Donors

Directorate for Environmental Health (DIGESA - Peru)  
Government of Australia (AID)  
Government of Bulgaria  
Government of Canada (CIDA)  
Government of Denmark (DANIDA)  
Government of France  
Government of Germany (GTZ)  
Government of Japan (JICA)  
Government of Mexico - Env/NR Secretariat (SEMARNAT)  
Government of New Zealand  
Government of Netherlands  
Government of the Philippines  
Government of Switzerland (SDC)  
Government of Sweden (SIDA)  
The Honduras Forest Development Corporation (COHDEFOR)  
The National Forestry Science School (ESNACIFOR - Honduras)  
The Secretary of Natural Resources (SERNA - Honduras)  
United Kingdom (DfID)

### Private and Voluntary Organizations

Abt Associates  
ACDIVOCA  
Agricultural Business Services  
Appropriate Technologies for Enterprise Creation  
Associates in Rural Development, Inc. (ARD)  
Chemonics International, Inc.  
Cooperative Bank of Kenya  
Development Alternatives, Inc. (DAI)  
Honduras Forest Development Corporation  
International Resources Group (IRG)  
K-REP Holdings Ltd. (Kenya)  
Management Systems International (MSI)  
PA Consulting  
Tetra Tech EM, Inc.  
University of Rhode Island (URI)

### International Non-Governmental Organizations

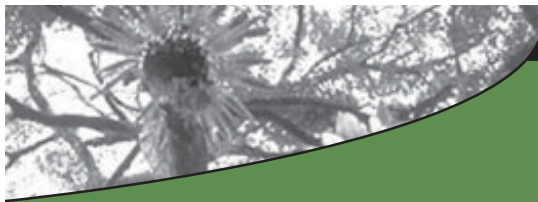
Academy for Educational Development (AED)  
Adventist Development and Relief Organization  
African Wildlife Foundation  
Africare  
Canadian Centre for International Studies and Cooperation  
CARE  
Catholic Relief Services (CRS)  
Center for International Forestry Research (CIFOR)  
Center for International Environmental Law  
Charles Darwin Foundation  
Cornell University  
Conservation International (CI)  
Consultative Group on International Agricultural Research (CGIAR)  
The Consultative Group on Biological Diversity  
Enterprise Works Worldwide  
The Environmental Law Institute (ELI)  
Food for the Hungry International  
Ford Foundation  
Global Environment Facility (GEF)  
Heifer Project International  
International Centre for Research in Agroforestry  
Institute of Environmental Science for Social Change  
International Gorilla Conservation Program (IGCP)  
International Tropical Timber Organization  
International Union for the Conservation of Nature (IUCN)  
Mexican Conservation Fund  
National Fish and Wildlife Foundation  
Pact  
The Society for Conservation Biology  
The National Geographical Institute  
The Nature Conservancy (TNC)  
The New York Botanical Garden  
Tropical Forest Foundation  
Tuskegee University  
University of Florida  
University of Rhode Island  
University of Miami  
Washington State University  
Wildlife Conservation Society (WCS)  
Winrock International  
World Learning  
World Resources Institute (WRI)  
World Wildlife Fund (WWF)  
Yale University School of Forestry

## International Donor Organizations

The Asian Development Bank (ADB)  
The European Union (EU)  
The Inter-American Development Bank (IDB)  
United Nations Development Programme (UNDP)  
World Bank

## National, Regional and Local Non-Governmental Organizations

The Bangladesh Center for Advanced Studies  
CAMPFIRE Association (Zimbabwe)  
CARITAS Bangladesh  
Center for Natural Resources Studies (Bangladesh)  
Centro Maya (Guatemala)  
Defensores de la Naturaleza (Guatemala)  
Desdel Chaco Foundation (Paraguay)  
The Federation of Nepalese Chambers of Commerce and Industry  
Fresh Produce Exporters Association of Kenya  
Kenya Agricultural Research Institute  
Kenya Wildlife Services  
National Commission for the Study and Use of Biodiversity (CONABIO)  
National Environmental Council - Peru  
National Institute for National Resources (INRENA - Peru)  
Peruvian Society of Mining, Petroleum, and Energy (SPDA - Peru)  
Pronatura (Mexico)  
Proyecto Aldea Global (Honduras)  
Rossing Foundation (Namibia)  
Tegemeo Institute (Kenya)  
United Missions to Nepal  
Water, Wildlife, and Environment and Land Management (ELMS - Lesotho)  
World Vision-Kenya



## Annex III: Section 118 of the Foreign Assistance Act



The United States Agency for International Development



Foreign Assistance Act, Part I, Section 118 - Tropical Forests  
Sec. 118.\73\ Tropical Forests.

\73\22 U.S.C. 2151p-1. Sec. 118 was added by sec. 301(3) of Public Law 99-529 (100 Stat. 3014). See also footnote 71.

(a) Importance of Forests and Tree Cover.—In enacting section 103(b)(3) of this Act the Congress recognized the importance of forests and tree cover to the developing countries. The Congress is particularly concerned about the continuing and accelerating alteration, destruction, and loss of tropical forests in developing countries, which pose a serious threat to development and the environment. Tropical forest destruction and loss—

- (1) Result in shortages of wood, especially wood for fuel; loss of biologically productive wetlands; siltation of lakes, reservoirs, and irrigation systems; floods; destruction of indigenous peoples; extinction of plant and animal species; reduced capacity for food production; and loss of genetic resources; and
- (2) Can result in desertification and destabilization of the earth's climate. Properly managed tropical forests provide a sustained flow of resources essential to the economic growth of developing countries, as well as genetic resources of value to developed and developing countries alike.

(b) Priorities.—The concerns expressed in subsection (a) and the recommendations of the United States Interagency Task Force on Tropical Forests shall be given high priority by the President—

- (1) In formulating and carrying out programs and policies with respect to developing countries, including those relating to bilateral and multilateral assistance and those relating to private sector activities; and
- (2) In seeking opportunities to coordinate public and private development and investment activities which affect forests in developing countries.

(c) Assistance to Developing Countries.—In providing assistance to developing countries, the President shall do the following:

- (1) Place a high priority on conservation and sustainable management of tropical forests.
- (2) To the fullest extent feasible, engage in dialogues and exchanges of information with recipient countries—
  - (A) Which stress the importance of conserving and sustainably managing forest resources for the long-term economic benefit of those countries, as well as the irreversible losses associated with forest destruction, and
  - (B) Which identify and focus on policies of those countries, which directly or indirectly contribute to deforestation.
- (3) To the fullest extent feasible, support projects and activities—
  - (A) Which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and
  - (B) Which help developing countries identify and implement alternatives to colonizing forested areas.
- (4) To the fullest extent feasible, support training programs, educational efforts, and the establishment or strengthening of institutions, which increase the capacity of developing countries to formulate forest policies, engage in relevant land-use planning, and otherwise improve the management of their forests.
- (5) To the fullest extent feasible, help end destructive slash-and-burn agriculture by supporting stable and productive farming practices in areas already cleared or degraded and on lands which inevitably will be settled, with special emphasis on demonstrating the feasibility of agroforestry and other techniques which use technologies and methods suited to the local environment and traditional agricultural techniques and feature close consultation with and involvement of local people.
- (6) To the fullest extent feasible, help conserve forests which have not yet been degraded, by helping to increase production on lands already cleared or degraded through support of reforestation, fuelwood, and other sustainable forestry projects and practices, making sure that local people are involved at all stages of project design and implementation.
- (7) To the fullest extent feasible, support projects and other activities to conserve forested watersheds and rehabilitate those which have been deforested, making sure that local people are involved at all stages of project design and implementation.
- (8) To the fullest extent feasible, support training, research, and other actions which lead to sustainable and more

environmentally sound practices for timber harvesting, removal, and processing, including reforestation, soil conservation, and other activities to rehabilitate degraded forest lands.

(9) To the fullest extent feasible, support research to expand knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation, including research in agroforestry, sustainable management of natural forests, small-scale farms and gardens, small-scale animal husbandry, wider application of adopted traditional practices, and suitable crops and crop combinations.

(10) To the fullest extent feasible, conserve biological diversity in forest areas by—

(A) Supporting and cooperating with United States Government agencies, other donors (both bilateral and multilateral), and other appropriate governmental, intergovernmental, and nongovernmental organizations in efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis;

(B) Whenever appropriate, making the establishment of protected areas a condition of support for activities involving forest clearance or degradation; and

(C) Helping developing countries identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas.

(11) To the fullest extent feasible, engage in efforts to increase the awareness of United States Government agencies and other donors, both bilateral and multilateral, of the immediate and long-term value of tropical forests.

(12) To the fullest extent feasible, utilize the resources and abilities of all relevant United States Government agencies.

(13) Require that any program or project under this chapter significantly affecting tropical forests (including projects involving the planting of exotic plant species)—

(A) Be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and

(B) Take full account of the environmental impacts of the proposed activities on biological diversity, as provided for in the environmental procedures of the Agency for International Development.

(14) Deny assistance under this chapter for—

(A) The procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner which minimizes forest destruction and that the proposed activity will produce positive economic benefits and sustainable forest management systems; and

(B) Actions that significantly degrade national parks or similar protected areas, which contain tropical forests or introduce exotic plants or animals into such areas.

(15) Deny assistance under this chapter for the following activities unless an environmental assessment indicates that the proposed activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner, which supports sustainable development:

(A) Activities, which would result in, the conversion of forest lands to the rearing of livestock.

(B) The construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undegraded forest lands.

(C) The colonization of forest lands.

(D) The construction of dams or other water control structures, which flood relatively undegraded forestlands.

(d) PVOs and Other Nongovernmental Organizations.—Whenever feasible, the President shall accomplish the objectives of this section through projects managed by private and voluntary organizations or international, regional, or national nongovernmental organizations which are active in the region or country where the project is located.

(e) Country Analysis Requirements.—Each country development strategy statement or other country plan prepared by the Agency for International Development shall include an analysis of:

(1) The actions necessary in that country to achieve conservation and sustainable management of tropical forests, and

(2) The extent to which the actions proposed for support by the Agency meet the needs thus identified.

(f) Annual Report.—Each annual report required by section 634(a) of this Act shall include a report on the implementation of this section.



## Annex IV: Endnotes

- 1) United Nations Environment Programme: Global Environment Outlook 2000. Chapter Two: State of the Environment, Regional Synthesis (Forests) (<http://www.unep.org/geo2000/english/0044.htm>)
- 2) WWF. Main Causes of Rainforest Destruction. (<http://www.savetherainforest.org/rainforest007.htm>)
- 3) Center for International Forestry Research. Annual Report: 1998. Towards Sustainability of Forests: Reduced Impact Logging (<http://www.cifor.cgiar.org/publications/Html/AR-98/RIL.html>)
- 4) United Nations Environment Programme: Global Environment Outlook 2000. Chapter Two: State of the Environment, Regional Synthesis (Biodiversity) (<http://www.unep.org/geo2000/english.0054.htm>)
- 5) Central African Regional Program for the Environment. USAID initiative hosted by the University of Maryland. ([http://carpe.umd.edu/products/pdf\\_files/Summary-CARPE.pdf](http://carpe.umd.edu/products/pdf_files/Summary-CARPE.pdf))
- 6) Central African Regional Program for the Environment. USAID initiative hosted by the University of Maryland. ([http://carpe.umd.edu/products/pdf\\_files/Summary-CARPE.pdf](http://carpe.umd.edu/products/pdf_files/Summary-CARPE.pdf))
- 7) World Tourism Organization. ([http://www.world-tourism.org/regional/south\\_asia/country/bangladesh.htm](http://www.world-tourism.org/regional/south_asia/country/bangladesh.htm))
- 8) United Nations Environment Programme. Geo-2000: Chapter 2: The State of the Environment - Latin America and the Caribbean. (<http://www.unep.org/geo2000/english/0086.htm>)
- 9) USAID/Forestry Team. Forestry in the Field: Latin America and the Caribbean. July 2001.
- 10) The Latin America Alliance: Brazil, The Land. (<http://www.latinsynergy.org/brazil.html#The Land>)
- 11) Addressing Forest Degradation in the Meseta Purepecha, Michoacan, Mexico. Jaffee, Dan. (<http://www.ies.wisc.edu/research/ies900/danpractice.htm>)
- 12) Determining funding levels in forestry for the entire agency over such a lengthy period is difficult for many reasons. For example, there are few individuals within the agency with sufficiently long institutional memory to discuss funding of forest projects. Furthermore, the agency changed accounting techniques twice over this period; during the latter half of the 1990s, the budget office can only report forestry projects that were reported with the code EVFR. However, some forest projects were conducted by the biodiversity program and, therefore, reported with the code EVCB. The historical analysis reported here uses the mean proportion of biodiversity projects from the early 1990s that were conducted in forests (~49%) as the basis for assuming that this same level of funding held for forest-related biodiversity projects later in the decade.
- 13) FAO, State of the World's Forests, 2001, pg. ix
- 14) ARD, Inc. What is BIOFOR? (<http://www.ard-biofor.com/what.html>)
- 15) PACT: Building Capacity Worldwide: Kenya. (<http://www.pactworld.org/Global/Kenya.html>)
- 16) PROARCA/CAPAS Organization. What is PROARCA/CAPAS? (<http://www.capas.org/capasen.htm>)
- 17) World Resources Institute. Environmental Strategies, Action Plans and Assessments; Peru: Conservation of Biological Diversity and Forest Ecosystems. ([http://www.wri.org/wdces/pe88\\_17.html](http://www.wri.org/wdces/pe88_17.html))
- 18) FAO Forestry Country Profile: Paraguay, ([http://www.fao.org/forestry/fo/country/index.jsp?lang\\_id=1&geo\\_id=211](http://www.fao.org/forestry/fo/country/index.jsp?lang_id=1&geo_id=211))
- 19) Mittermeier, R., Myers, N., and Mittermeier, C. G., 1999. Hotspots: Earth's Biologically Richest and Most Threatened Ecoregions. CEMEX. (Mexico City and Washington, DC.)

20) World Resources Institute. Guatemala: Biodiversity in Guatemala: biological diversity and tropical forests assessment.  
([http://www.wri.org/wdces/gu88\\_48.html](http://www.wri.org/wdces/gu88_48.html))

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