

U.S. Agency for International Development



# Biodiversity Conservation

A Report on  
USAID's Biodiversity Programs  
in Fiscal Year 2002

August 2003



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U.S. Agency for International Development  
Washington, D.C. 20523

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## EXECUTIVE SUMMARY

The United States recognizes that the extinction of plant and animal species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike. The U.S., therefore, has taken a lead role in preventing biodiversity loss, and is currently one of the largest bilateral funders of biodiversity conservation around the world. The U.S. Foreign Assistance Act (FAA) mandates the U.S. Agency for International Development (USAID) address biodiversity concerns. The FAA Section 119 emphasizes the importance of biodiversity conservation and instructs USAID and other appropriate international organizations to give high priority to preventing biodiversity loss.

For the past two decades, USAID has been assisting developing countries maintain biologically diverse habitats and environmental services, while supporting sustainable development and economic growth. USAID's emphasis in biodiversity conservation is to help countries maintain and manage the variety of species, genetic resources, and ecosystems in natural settings such as forests, grasslands, wetlands, and coastal habitats. USAID is implementing programs on protected area management support, community-based natural resources management, enterprise-based conservation initiatives, environmental education and communication, and policy development and reform.

This report presents an overview of USAID's biodiversity conservation programs. It summarizes programs and activities being implemented in Africa, Asia and the Near East, Europe and Eurasia, and the Latin America and the Caribbean regions, highlighting achievements in Fiscal Year 2002 (FY 2002).

The USAID centrally-funded programs are managed by the Bureau for Economic Growth, Agriculture, and Trade (EGAT), and specifically by the Biodiversity, the Forestry, and the Water Teams in the Natural Resources Management Office, as well as the EGAT Office of Agriculture. Centrally-funded programs include: the Global Conservation Program that focuses on site-based conservation of globally significant areas of biodiversity; sustainable forest and protected area management; the Coastal Resources Management Program; the Lake Basin Initiative focused on freshwater and wetland biodiversity conservation; and biodiversity research initiatives including programs in the Middle East.



*Rwandan women gather pyrethrum, a daisy-like flower valued as a highly effective natural pesticide.*



Richard Warner

*Queen Elizabeth National Park in Uganda is home to elephants and other wildlife.*

In Africa, USAID supports a range of biodiversity conservation activities at the regional and country-levels. The Regional programs include the natural resource program of the Africa Bureau's Sustainable Development Office, the Regional Center for Southern Africa based in Botswana, the Regional Economic Development Services Office for East and Southern Africa, the Central African Regional Program for the Environment, and the Mountain Gorilla Habitat Conservation program. Country-level biodiversity conservation activities are being implemented in the Democratic Republic of Congo, Ghana, Guinea, Kenya, Madagascar, Malawi, Namibia, Tanzania, Uganda, and Zambia. The centerpiece of USAID's work in the region is the Agency's 20 years of experience with community-based natural resources management

(CBNRM) in Southern Africa, a brief overview of which is provided in this report.

In Asia and the Near East, USAID implements the East Asia and Pacific Environmental Initiative that supports terrestrial, coastal, and marine conservation programs in 12 countries in the Southeast Asia and the Pacific regions. In addition, country-level programs are being implemented in Bangladesh, Egypt, Indonesia, Nepal, and the Philippines. The emphasis of activities in the Asia and the Near East region has been sound governance of forest resources, non-timber forest product enterprise development, and coral reef and marine protected areas management.

USAID participates in biodiversity and forestry initiatives in the temperate and boreal forests of Europe and Eurasia through Assistance for Eastern Europe and the Baltic States (AEEB) and FREEDOM Support Act (FSA) Funds. The funds support activities in Bulgaria, Croatia and Russia. These activities mainly focus on forest and national park management, ecotourism development, and sustainable extraction of non-timber forest products, thereby linking biodiversity conservation efforts directly with economic growth.

In Latin America and the Caribbean, the regional programs are strengthening protected area management, protecting critically threatened ecosystems in the region. These include the Caribbean Regional Program, the Central American Regional Environment Program (PROARCA), and the LAC Regional programs including the Parks in Peril and the Neotropical Raptor Conservation programs. Country-level programs are being implemented in Bolivia, Brazil, Dominican Republic, Ecuador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, and Peru.

Finally, USAID helps administer the Tropical Forest Conservation Act (TFCA), a brief description of which is provided in this report.

In summary, this report presents USAID's efforts in conservation of biodiversity worldwide. The report is intended to provide readers a resource on conservation efforts on-going at USAID, the types of programs being implemented, and the achievements of these conservation efforts in the field in FY 2002.

# TABLE OF CONTENTS

## Executive Summary

## Acronyms

## Introduction ..... 1

## Centrally Funded Programs ..... 7

- Natural Resources Management - Biodiversity Conservation
- Natural Resources Management - Forest Conservation
- Natural Resources Management - Water Resources Management
- Agriculture - Israeli Programs
- Agriculture - Global Livestock and Pond Dynamics/Aquaculture Research

## Regional Programs

## Africa ..... 13

- Community-Based Natural Resource Management
- Africa Regional/Sustainable Development
- Africa Regional: Regional Center for Southern Africa
- Africa Regional: Regional Economic Development Service Office for East and Southern Africa
- Central African Regional Program for the Environment
- Central Africa: Mountain Gorilla Habitat Conservation - Directive
- Democratic Republic of Congo
- Ghana
- Guinea
- Kenya
- Madagascar
- Malawi
- Namibia
- Tanzania
- Uganda
- Zambia

## Asia and the Near East ..... 27

- East Asia and Pacific Environment Initiative
  - ANE - Office of Technical Support
  - ANE Regional – Global Development Alliance: Papua/Bird’s Head Regional Development
  - Bangladesh
  - Egypt
  - Indonesia
-



Nepal  
Philippines

**Europe and Eurasia ..... 35**

Bulgaria  
Croatia  
Russia

**Latin America and the Caribbean ..... 39**

Mexico  
Caribbean Regional Program  
Central American Regional Environment Program  
LAC Regional  
LAC Strategy and Planning Office - Alliance Activities  
Bolivia  
Brazil  
Dominican Republic  
Ecuador  
Guatemala  
Haiti  
Honduras  
Jamaica  
Nicaragua  
Panama  
Paraguay  
Peru

**The Tropical Forest Conservation Act ..... 53**

**Annex I: USAID Biodiversity Activities and Program Funding ..... 54**

**Annex II: Section 119 of the Foreign Assistance Act ..... 56**

**Maps**

Earth’s Ecoregions ..... 1  
Biodiversity Hotspots and Major Tropical Wilderness Areas ..... 2

**Figures**

Figure 1: USAID Assistance for Biodiversity Conservation, 1987-2002 ..... 4

Cover photo: Daryl & Sharna Balfour, AWF



# ACRONYMS

AEEB	Assistance for Eastern Europe and the Baltic States
AFR	Africa
AFR/SD	Africa/Sustainable Development
ANE	Asia and the Near East
ARD	Associates in Rural Development
AWF	African Wildlife Foundation
BP	British Petroleum
CARICOM	Caribbean Community (Secretariat)
CARPE	Central African Regional Program for the Environment
CBNRM	Community-based Natural Resources Management
CEDEFOR	Peruvian Center for Forest Development
CI	Conservation International
CIFOR	Center for International Forestry Research
DA	Development Assistance
DFGFI	Dian Fossey Gorilla Fund International
EAPEI	East Asia and Pacific Environment Initiative
EE	Europe and Eurasia
EGAT	Bureau for Economic Growth, Agriculture and Trade
ESF	Economic Support Funds
EWV	EnterpriseWorks Worldwide
FAA	Foreign Assistance Act
FAO	Food and Agriculture Organization (United Nations)
FOREST	Forestry Resources and Technologies
FSA	FREEDOM Support Act
FY	Fiscal Year
GCP	Global Conservation Program
GIS	Geographic Information System
ICRAF	International Center for Research in Agroforestry
IGCP	International Gorilla Conservation Program
INRENA	National Institute for Natural Resources (Peru)
IRG	International Resources Group
LAC	Latin America and the Caribbean
NGO	Non-governmental Organization
NRM	Natural Resources Management
PCW	Panama Canal Watershed
PiP	Parks in Peril
PROARCA	Central American Regional Environment Program
RCSA	Regional Center for Southern Africa
REDSO	Regional Economic Development Service Office for East and Southern Africa
ROLL	Replication of Lessons Learned
TBNRM	Transboundary Natural Resources Management

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TFCA	Tropical Forest Conservation Act
TNC	The Nature Conservancy
URI/CRC	University of Rhode Island/Coastal Resources Center
USAID	U.S. Agency for International Development
WCS	Wildlife Conservation Society
WMA	Wildlife Management Area
WRI	World Resources Institute
WWF	World Wildlife Fund
WSSD	World Summit on Sustainable Development

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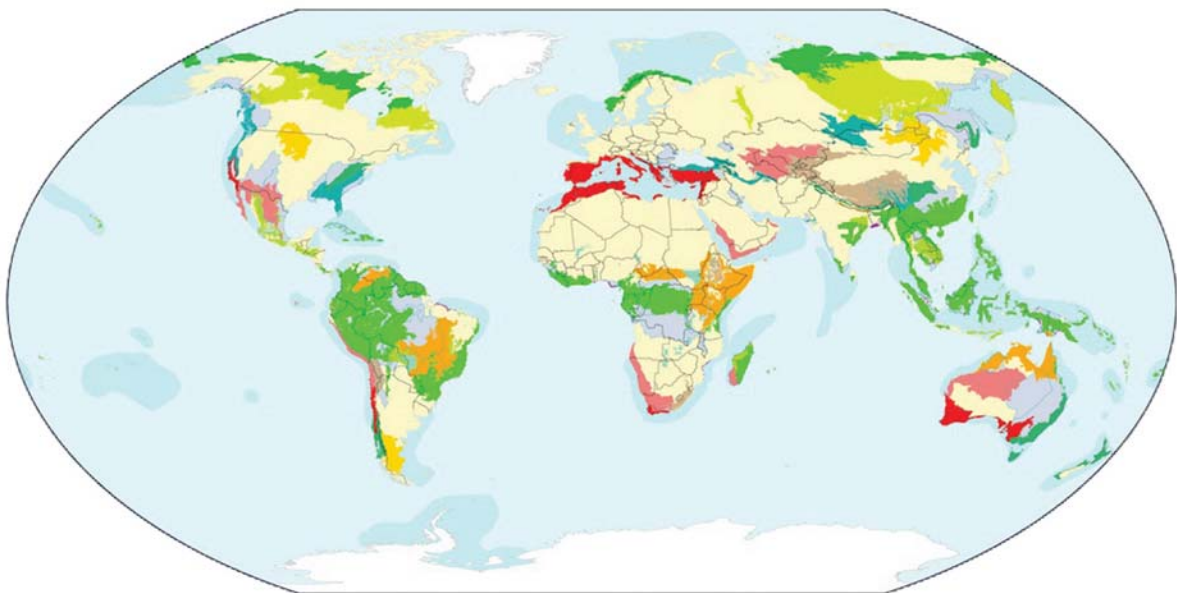


# INTRODUCTION

**B**iological diversity, or biodiversity, is the variety and variability of life, including the diversity of genes within species, individual species, communities, and ecosystems, and of the ecological processes that support and build these complex assemblages.

The diversity of life constitutes a unique resource for this and future generations. Biotic resources are essential for meeting human needs for food, fuel, fiber, shelter, and medicine. In addition, biodiversity provides critical ecosystem services. These include the regulation of water flows and maintenance of water quality; the formation of soil, prevention of soil erosion, nutrient cycling that maintains soil fertility, disintegration of wastes and pollution, pest and pathogen control, pollination, and climate regulation through carbon sequestration. The diverse

## Earth's Ecoregions



World Wildlife Fund

- Tropical & Subtropical Moist Broadleaf Forests
- Tropical & Subtropical Dry Broadleaf Forests
- Tropical & Subtropical Coniferous Forests
- Temperate Broadleaf & Mixed Forests
- Temperate Conifer Forests
- Boreal Forests/Taiga
- Tropical & Subtropical Grasslands, Savannah & Shrublands
- Temperate Grasslands, Savannah & Shrublands
- Flooded Grasslands & Savannah
- Montane Grasslands & Shrublands
- Tundra
- Mediterranean Forests, Woodlands & Scrub
- Deserts & Xeric Shrublands
- Mangroves
- Freshwater Ecoregions
- Marine Ecoregions

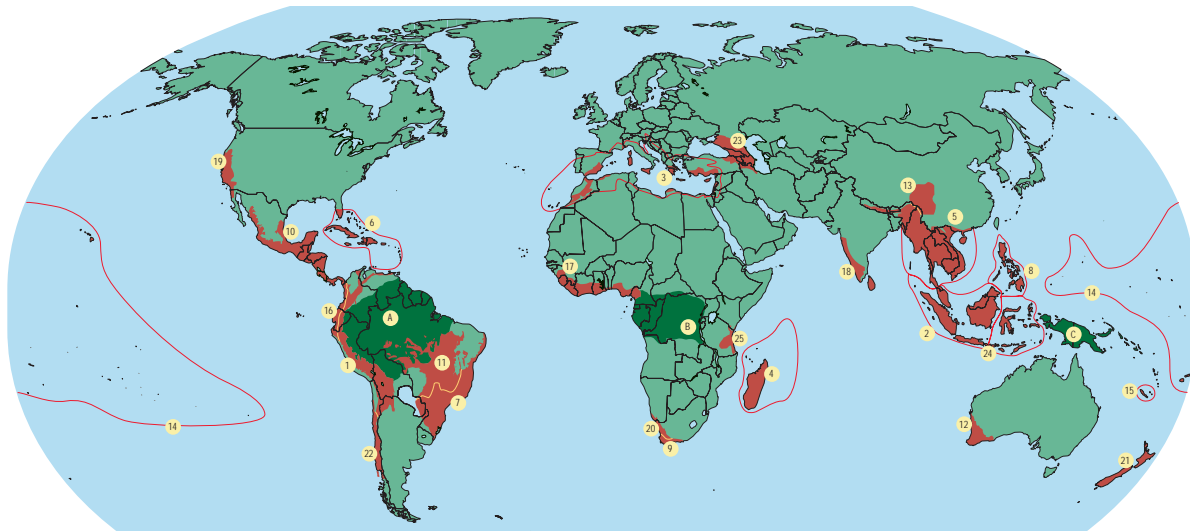
*All of the world's ecoregions may be categorized into a total of 26 terrestrial, freshwater, or marine major habitat types. Using this analysis, WWF has prioritized 238 ecoregions in this Global 200 ecoregions map, representing outstanding examples of biodiversity from every continent and ocean basin. By prioritizing the conservation of the broadest range of habitats, the Global 200 aims to secure the conservation of the fullest possible range of species.*

natural ecosystems also have many other values, including the spiritual, aesthetic, educational, recreational, historical, and scientific benefits that people derive from them.

A few examples below illustrate the importance of biodiversity in providing essential goods and services:

- The numerous ecosystem services that natural areas provide such as pollination, water purification and supply, soil formation, and flood and storm protection, have been estimated to value \$33 trillion a year.
- At least 72 percent of 1,330 crop species require pollination. Wild insects, birds, and small mammals pollinate 75 percent of the world's staple crops and 90 percent of all flowering plants. FAO estimated the 1995 contribution from pollination to the worldwide production of just 30 of the major fruit, vegetable, and tree crops to be in the range of \$54 billion per year.
- Fifty-seven percent of the 150 most commonly prescribed drugs have their origins in wild species.
- Farmers around the world spend about \$25 billion annually on pesticides. Natural parasites and predators in the world's ecosystems provide an estimated five to ten times this amount of free "pest control."

### Biodiversity Hotspots and Major Tropical Wilderness Areas



Conservation International

#### BIODIVERSITY HOTSPOTS

- 1 Tropical Andes
- 2 Sundaland
- 3 Mediterranean Basin
- 4 Madagascar & Indian Ocean Islands
- 5 Indo-Burma
- 6 Caribbean
- 7 Atlantic Forest Region
- 8 Philippines

- 9 Cape Floristic Region
- 10 Mesoamerica
- 11 Brazilian Cerrado
- 12 Southwest Australia
- 13 Mountains of Southwest China
- 14 Polynesia/Micronesia
- 15 New Caledonia
- 16 Chocó Darién - West Ecuador
- 17 Guinean Forests of West Africa

- 18 Western Ghats and Sri Lanka
- 19 California Floristic Province
- 20 Succulent Karoo
- 21 New Zealand
- 22 Central Chile
- 23 Caucasus
- 24 Nallacea
- 25 Eastern Arc Mountains & Coastal Forests of Tanzania and Kenya

#### MAJOR TROPICAL WILDERNESS AREAS

- A Amazonia
- B Congo Forest
- C New Guinea

*The biodiversity hotspot concept recognizes that a small number of ecoregions, occupying a small portion of the land surface of the planet, account for an inordinately large share of Earth's terrestrial biodiversity. The hotspot concept targets regions where the threat is greatest to the greatest number of species, allowing conservationists to focus efforts cost-effectively. The 25 biodiversity hotspots identified in this Conservation International map contain 44 percent of all plant species and 35 percent of all terrestrial vertebrate species in only 1.4 percent of the planet's land area.*

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Human activities are driving species to extinction through conversion of natural habitats to agricultural lands, degradation of habitats resulting from logging and mining activities, exploitation of plant and animal resources, pollution, and climate change. Today, biodiversity is being lost more rapidly than at any time since the extinction of the dinosaurs 65 million years ago. Extinction rates are currently 100 to 1,000 times what would occur naturally, with an estimated 10,000-25,000 species being lost each year.

## **U.S. Interest in Biodiversity Conservation**

U.S. interest in biodiversity conservation comes from the realization that species extinction is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries. As one of the largest bilateral funder of biodiversity conservation around the world, the U.S. is taking a lead role in addressing biodiversity concerns. The high priority to biodiversity conservation is reflected in the FAA Section 119. This section of the Act instructs USAID and other appropriate international organizations to make special effort to continue, and increase assistance for, sound wildlife habitat management and plant conservation programs.

Biodiversity conservation also links directly with other international development efforts of the U.S., and with major U.S. national interests: national security, economic prosperity, law enforcement and humanitarian response, and issues related to health and population. For instance, conflict over scarce and vital natural resources generate severe social and ethnic stresses inside countries, in some cases stimulating subnational insurgencies, ethnic clashes, and mass migration. Empowering local governments and communities to manage natural resource is an opportunity to promote more effective democracies and just societies. Intact ecosystems also provide clean water and food, and contribute to human and economic well-being. Therefore, programs and activities designed for biodiversity conservation link closely with other U.S. foreign policy concerns.

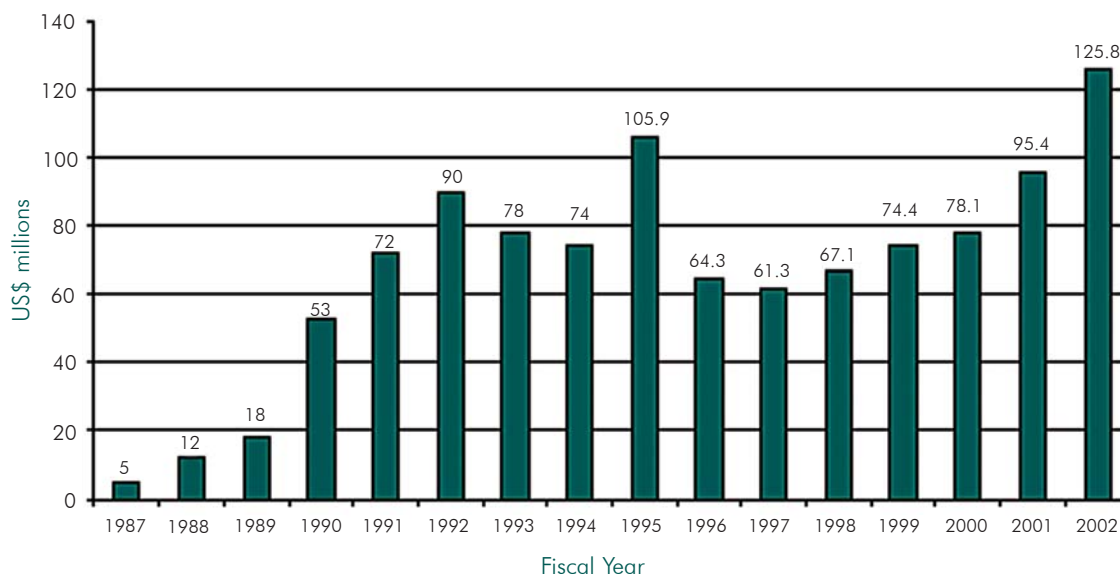
In August of 2002, the World Summit on Sustainable Development (WSSD) also placed high importance on these and other linkages. The Convention drew attention to the important contribution of biodiversity to environmental services, human health, economic growth, and human security. It also recognized the role of poverty, poor governance, and political instability as significant limiting factors in achieving biodiversity conservation. Linkages such as these play an important role in many USAID programs, where ties between conservation and development programs are proving to be mutually beneficial.

### ***U.S. Funding for Biodiversity***

The majority of the U.S. bilateral development assistance for biodiversity conservation is channeled through USAID. In addition to USAID, the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the U.S. Treasury Department also manage funds to support conservation-focused biodiversity activities in developing countries. USAID spending on biodiversity conservation was \$5 million in 1987 and rose steadily each year to \$90 million in 1992 (see figure on the following page). Despite fluctuations, spending was maintained at levels between approximately \$60 million and \$100 million throughout the following decade. Current USAID spending on biodiversity is approximately \$125 million.

The U.S. Fish and Wildlife Service's International Affairs Program spends approximately \$10 million on activities related to the protection of endangered species, and manages an additional \$5 million per year appropriated through the Neotropical Migratory Bird Conservation Act. The U.S. Forest Service International Program

**Figure 1. USAID Assistance for Biodiversity Conservation, 1987-2002**



spends approximately \$5 million per year on biodiversity conservation in forests.<sup>1</sup> In FY 2001 and 2002, the U.S. Government allocated \$13 and \$11 million respectively to the Tropical Forest Conservation Act for the conservation of tropical forests in low- and medium- income developing countries through debt-for-nature swaps and debt restructuring.

The Latin America and the Caribbean region receives 37 percent of USAID biodiversity investment. This is followed by the Asia and the Near East region that receives 29 percent of the USAID biodiversity funds, and Africa that receives 24 percent. About 1.1 percent of the biodiversity funds are channeled to the Europe and Eurasia region. The remaining 8.9 percent of the funds are spent on global biodiversity programs by the Bureau for Economic Growth, Agriculture and Trade (EGAT) in the Washington office.

### *USAID's Biodiversity Conservation Programs*

The Agency supports a broad spectrum of environmental programs including biodiversity, forestry, energy, water, and natural resource management programs in both rural and urban settings. The Agency's biodiversity programs are working to conserve species and habitats in more than 45 countries, and with more than 30 USAID missions whose objectives include biodiversity conservation activities in terrestrial, coastal, and marine areas. Working with national and international partners, USAID biodiversity conservation programs promote approaches that include participation and transparency, cooperation among stakeholders, and devolution of authority to local users of natural resources, including recognition of indigenous people's rights to manage their traditional lands.

Most of the USAID spending on biodiversity is through its in-country missions. The Agency works with developing country governments to outline country strategic plans. USAID emphasizes linking biodiversity

4 <sup>1</sup> Lapham, Nicholas P. and Rebecca J. Livermore. 2003. *Striking a Balance: Ensuring Conservation's Place on the International Biodiversity Assistance Agenda*, Conservation International, Center for Applied Biodiversity Science.

conservation to development and to people's livelihood needs. This emphasis has led to a shift in the types of biodiversity conservation measures sponsored by the Agency, from a focus on protected area management in the late 1980s to a larger variety of interventions that include community-based conservation, sustainable use of natural resources, economic incentives for conservation, environmental education, and policy development and reform.

The remainder of USAID funding for biodiversity conservation is managed directly by the Agency's Washington based Regional Bureaus and EGAT. EGAT's Natural Resource Management Office manages most of the EGAT biodiversity funds, primarily through the Biodiversity Team. The Forestry and the Water Teams also manage programs that support biodiversity conservation. In addition, EGAT's Office of Agriculture supports biodiversity conservation primarily through research grants.

### *USAID's Strengths in Biodiversity Conservation*

Linking biodiversity and development is one of USAID's strengths. The Agency recognizes that while biodiversity is a global resource, it is also a critical local resource, providing watershed protection, refuge for pollinators, direct economic opportunities, and local cultural needs. The Agency's development experience enables it to link biodiversity to benefits for the local people in the project areas.

USAID is also especially strong in integrating conservation efforts with other sectors and development initiatives, such as economic growth, agriculture, natural resource management, population, health, and democracy and governance. These efforts are simultaneously addressing multiple environmental and development challenges, making many of the biodiversity conservation projects more sustainable.

Finally, the Agency's dynamic partnerships with other conservation organizations are a critical component of program success. USAID programs are implemented through a variety of mechanisms, including governments, non-governmental organizations (NGOs), and private organizations. Thus, Agency programs contribute towards building in-country capacities of governments and local organizations, which are the foundation for long-term conservation efforts.



*USAID's conservation efforts protect flora, such as this bromeliad, and fauna throughout the world.*

Cynthia Gill, USAID

# CENTRALLY FUNDED PROGRAMS

## EGAT/NRM/Biodiversity Conservation Program

FY 2002 Obligation: \$6.535 million<sup>2</sup>

The EGAT Bureau's Natural Resource Management (NRM) Biodiversity Team plays a technical leadership role for the Agency in biodiversity conservation. A large part of the Biodiversity Team's funds support NGOs working to address the most pressing threats to biodiversity through the Global Conservation Program (GCP). Through this program, USAID assists developing countries maintain biologically diverse habitats and environmental services. For 12 years, the Team also funded and managed the Neotropical Migratory Bird Conservation Program. USAID funding for this program ended in FY 2002.

The Biodiversity Team offers USAID missions and Bureaus in-house, technical capability in strategy formulation, implementation, and evaluation. In FY 2002, the Biodiversity Team prepared a Biodiversity Conservation Program Design and Management Guide. This Guide was developed as a resource for USAID staff to achieve biodiversity conservation by linking it with the Agency's development goals. The Guide provides information on design, management, and implementation of biodiversity conservation programs and activities, and can serve as a useful resource for USAID partners as well.<sup>3</sup>

In FY 2002, the Team provided support also to IUCN-The World Conservation Union for the 5th World Parks Congress to be held this year, the Population-Environment Collaboration, and the Consultative Group for Biodiversity.

### *The Global Conservation Program*

GCP is a \$45 million biodiversity program managed by the Biodiversity Team in partnership with six leading conservation organizations: the African Wildlife Foundation (AWF), Conservation International (CI), Enterprise Works Worldwide (EWW), The Nature Conservancy (TNC), Wildlife Conservation Society (WCS), and the World Wildlife Fund (WWF).

The GCP builds upon lessons learned from the thirteen years of work of the Biodiversity Support Program. Between 1988 and 2001, USAID provided \$85 million to that program, a consortium of WWF, TNC, and WRI. BSP supported projects that combined conservation with social and economic development. It undertook analysis to determine the most effective conservation practices; strengthened capacity of individuals and organizations through enhancement of technical,



*Tail fluke of a humpback whale. In addition to continuing current programs, the GCP's second phase aims to strengthen marine and coastal conservation efforts.*

Benjamin Kahn, Apex Environmental, Ltd.

<sup>2</sup> All funds are DA funds, unless indicated otherwise.

<sup>3</sup> The Guide is available from USAID website: [http://www.dec.org/pdf\\_docs/PNACQ426.pdf](http://www.dec.org/pdf_docs/PNACQ426.pdf)

organizational, and strategic skills; and provided technical assistance to partners, including USAID. During its thirteen years, the program compiled lessons learned and developed many concepts and tools, which have been documented in its library of publications for conservation practitioners and decision makers.<sup>4</sup>

Since 1999, conservation projects have been implemented under GCP in sites identified as global priorities for conservation. Twenty one sites were funded for in situ conservation activities under phase one of this Program (listed in Box 1). Seventeen of these are large-scale conservation activities (landscape scale and above), nine are transboundary activities, two sites are in non-mission presence countries, and eight in countries without USAID mission environment programs.

### **Box 1. Sites Supported under GCP I**

Central Himalayas; Nepal  
Amboseli-Kilimanjaro; Kenya and Tanzania  
Laikipia-Samburu; Kenya  
Mana Zambezi; Zimbabwe, Zambia, and Mozambique  
Forests of the Lower Mekong; Laos, Cambodia, and Vietnam  
The Bering Sea; Russia  
The Southwest Amazon Ecological Corridor; Bolivia and Peru  
The Atlantic Rainforest; Paraguay  
The Sulu-Sulawesi Sea; Indonesia and Philippines  
The Sierra Madre Corridor; Philippines  
The Kanuku mountain region; Guyana  
The Cerrado and Pantanal; Brazil  
Yasuni-Napo Forest; Ecuador  
Northwest Andes; Bolivia  
Ndoki-Likouala; Congo  
Komodo National Park; Indonesia  
Kimbe Bay; Papua New Guinea  
The Chaco; Paraguay

Within GCP, the partner organizations are implementing a vast array of programs that include enterprise-based conservation, protected area management, community-based natural resources management, institutional capacity building, ecoregional planning and management, conflict resolution/land tenure, participatory monitoring and evaluation, conservation education and public awareness, environmentally sound tourism, policy initiatives, and innovative conservation financing. Through these programs, GCP promotes inter-institutional collaboration among GCP partners, and tests and applies cutting edge approaches to conservation.

GCP is currently transitioning to its next phase (GCP II), building on the foundation of GCP I and responding to the need for longer-term donor commitment at the site level. GCP II will continue to address the needs identified for GCP I and encourage inter-institutional collaboration and learning. Under GCP II, nine of the original sites will receive continued support, while eight new sites have been selected for funding beginning in FY 2003. The new sites will strengthen the marine and coastal focus of the conservation efforts.

Although GCP represents a relatively small amount of the total budget that USAID spends on biodiversity conservation, it is uniquely placed to have large impacts within USAID and beyond. The GCP mechanism permits USAID to support the best biodiversity conservation projects of the selected NGOs while serving the needs of missions, regional bureaus, and the NGO partners.

### ***The Neotropical Migratory Bird Conservation Program***

Habitat loss poses a critical threat to global biodiversity conservation. This threat is particularly acute for neotropical migratory birds who breed in the U.S. and Canada and spend the non-breeding season in tropical regions of Mexico, Central and South America, and the Caribbean. Due to their dependence on multiple habitats, migratory birds are especially vulnerable to the threat of habitat loss.

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Since 1991, the National Fish and Wildlife Foundation has administered funds on behalf of USAID to support small-scale projects to benefit the conservation of neotropical migratory birds and their habitats throughout Mexico, Central and South America, and the Caribbean. Funds have supported Latin American and Caribbean organizations involved in research and monitoring, training, education, protected area management, and bird-based enterprise development such as birding tourism.

In FY 2002, the program supported 15 projects in nine countries and leveraged \$1.0 million in additional funds. Achievements during that fiscal year included the declaration of Important Bird Areas in Mexico and the identification of Important Bird Areas in Jamaica.

After 12 years of funding the program, USAID support ended in FY 2002. Through the life of the program, it provided funding to more than 70 organizations, including 50 in-country organizations located in 17 countries. With support from USAID, these organizations achieved important hemispheric-wide bird conservation results. These results include improved management of millions of hectares of bird habitat in the Latin America and the Caribbean region.

### **EGAT/NRM/Forestry Programs**

FY 2002 Obligation: \$1.395 million

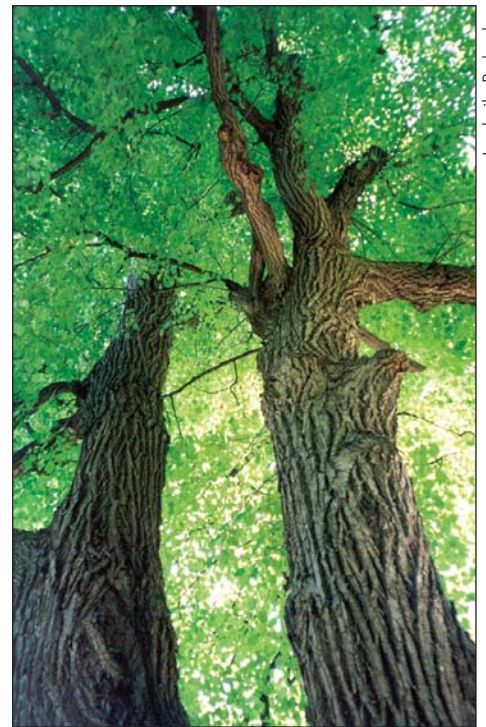
USAID's forestry programs complement efforts of terrestrial biodiversity conservation. Forests are home to 70 percent of the world's land-based plants and animals, and habitat conversion remains one of the main causes of biodiversity loss. Less than eight percent of the world's forests are currently designated as parks or reserves. Forest conservation outside of formally designated protected areas plays an important role toward the conservation of biological diversity. For viable populations of many plants and animals to exist, contiguous areas beyond protected areas are critical.

Through research, technical support, and strategic partnerships, USAID forestry programs focus on six technical areas: fire management, reduced-impact logging, certification of forest products, illegal logging, conservation in protected areas, and community-based forest management. Programs are implemented through interagency agreements with the U.S. Forest Service and through partnerships with the Center for International Forestry Research (CIFOR), the International Center for Research in Agroforestry (ICRAF), and the Tropical Forest Foundation.

### **EGAT/NRM/Water Programs**

FY 2002 Obligation: \$1.35 million (DA and ESF Funds)


USAID's water programs address biodiversity conservation concerns primarily through management of marine, coastal, and freshwater resources. The Coastal Resource Management Program, which will end in FY 2003, results from a partnership between USAID and the Coastal Resources Center of the University of Rhode Island.



Luydmila Bysheenko

*USAID works with the U.S. Forest Service to support the protection of important forest habitats.*





The program implements projects in Indonesia, Kenya, Mexico, and Tanzania, as well as regional activities adjacent to these countries. The activities include conservation of marine biodiversity, sustainable use and management of marine and coastal resources, and conservation of marine and coastal inter-related ecosystems particularly coral reefs, seagrass beds, and mangroves. The project also engages in international outreach and leadership through the Summer Institute – a training workshop for coastal managers from developing countries – and publication and dissemination of the *InterCoast*, an international newsletter of coastal management. The Coastal Resource Management Program works with USAID country missions, host country governments, local communities, and other stakeholders.

The World Lake Basin Initiative is another activity administered by USAID, and is jointly funded by the Africa, Asia and the Near East, Europe and Eurasia, and the Latin America and the Caribbean Bureaus. Sound management and protection of lake basins is critical to safeguarding freshwater and wetland biodiversity as well as water sources and supplies. The Lake Basin Initiative aims to improve lake basin management and foster international cooperation on sustainable watershed management through: technical assistance for lake management in seven developing countries (Armenia, Ethiopia, India, Indonesia, Kyrgyzstan, Mexico, Nicaragua, and the Philippines); capacity building and experience sharing; development of experience briefs and lessons learned on select lakes; establishment of a web-based Geographic Information System (GIS); and enhanced information technology to support lake management programs worldwide. The project will contribute to a larger partnership initiative on lake basin management, leveraging an additional \$1.6 million from the Global Environmental Facility, Shiga Prefecture of Japan, The Netherlands-World Bank Water Partnership, and the World Bank Institute.

The Water Team is also providing support for activities to manage freshwater inflows to estuaries, including \$100,000 in FY 2002 to Morocco. Experience gained from these activities will contribute to the global Dialogue on Water, Food, and the Environment. Implementing partners include TNC and University of Rhode Island/Coastal Resources Center (URI/CRC).

### **Office of Agriculture/Israeli Programs: Middle Eastern Regional Cooperation**

FY 2002 Obligation: \$1.166 million (ESF Funds)

USAID's Israeli Programs support a number of research activities with a biodiversity focus. The programs include: 1) research and monitoring program to improve management of coral reef ecosystems in the Red Sea Marine Peace Park, the Gulf of Aqaba, a joint undertaking by the governments of Jordan, the U.S., and Israel; 2) migratory birds scientific and educational activities among Israelis, Palestinians, and Jordanians that seek to promote scientific research as well as promote peaceful dialogue and cooperation among these groups; 3) assessment of species diversity in the southern Arava Rift Valley in Israel and Jordan to identify conservation goals in the region; and 4) monitoring and evaluation of watersheds in the Middle East region to protect and improve natural resources and the socioeconomic situation of inhabitants, specifically by improving watershed management practices and demonstrating effective forest and grassland management practices using pilot watershed programs.

## Office of Agriculture: Global Livestock and Pond Dynamics/Aquaculture Collaborative Research Support Programs

FY 2002 Obligation: \$0.647 million

The Global Livestock Collaborative Research Support Program (CRSP) is designed to increase food security and improve the quality of life of people in developing countries while bringing an international focus to the research, teaching, and extension efforts of U.S. institutions. This goal is to be met through collaboration between U.S. land-grant institutions, and national and regional institutions abroad that are involved in livestock research and development. The Global Livestock CRSP is active in three geographic regions representing distinct ecosystem types: a tropical ecosystem in Latin America, a temperate mountainous ecosystem in the Central Asian Republics, and a desert ecosystem in Africa.

In Latin America, the project focuses on the impact of increasing human population on forests, and the management of integrated livestock systems that protect and use biodiversity within the ecosystem. In Central Asian Republics the project is supporting research efforts to describe, quantify, and map the regions livestock carrying capacity using GIS. This research hopes to improve the welfare of small landowners, prevent further deterioration of rangelands, and assess the potential of rangelands as important carbon sinks. In East Africa the project works to mitigate the effects of drought through an early warning system that detects changes in forage supply and livestock well-being in pastoral areas. Implementing partners include: University of California-Davis, University of Wisconsin-Madison, Texas A&M University System, and local NGOs.

The USAID-supported Pond Dynamics/Aquaculture CRSP in Peru promotes research on indigenous fish species for use in aquaculture. These species are heavily fished in the Amazon basin. The CRSP has been successful in hatchery spawning these fish and raising them in ponds. Farmers in the Iquitos area of Peru are beginning to grow these indigenous fish species. The production of these fish in ponds is likely to reduce the fishing pressure on the indigenous species in local rivers. The collaborators on this activity include the Southern Illinois University at Carbondale, Ohio State University, University of Arkansas at Pine Bluff, the Instituto de Investigaciones de la Amazonia Peruana and the Universidad Nacional de la Amazonia Peruana, and the program is managed by Oregon State University.



George Wheeler

*In Latin America, the Global Livestock CRSP focuses on the management of integrated livestock systems that protect biodiversity.*

# AFRICA

The African continent contains rich savannah supporting the world's largest concentration of large animals, the world's second largest tropical rainforest, and important desert, wetland, and coral reef ecosystems. These diverse habitats are home to an impressive array of flora and fauna including more than 50,000 known plant species, 1,000 mammal species, and 1,500 bird species. The richness and diversity of ecosystems is also central to the livelihoods of rural Africans. It is estimated that 70 percent of the continent's people depend on its land, forest, wildlife, and water resources for their livelihood.

Unfortunately, Africa's rich biodiversity is at risk. Between 1990 and 1995, Africa lost more than nine million acres of forest each year to civil unrest, logging, agricultural conversion, overgrazing, wildfires, and cutting for firewood and charcoal. It is estimated that up to 90 percent of West Africa's rainforests have disappeared to date. Along with forests, Africa's wetlands are also disappearing. For example, just in the past two decades, Niger lost more than 80 percent of its freshwater wetlands.

USAID is responding to these threats by supporting biodiversity conservation activities in 23 countries across the continent, with a total of more than \$30 million in funding in FY 2002.



Richard Warner

*Giraffes gather in a valley near a mountain ridge in East Africa.*

## Community-Based Natural Resource Management

The Agency has pioneered community-based natural resource management programs throughout Africa, especially Southern Africa. CBNRM programs were originally initiated as efforts to conserve and rehabilitate the environment. As this approach evolved, it has increasingly focused on the economic and governance benefits of involving communities in the management of natural resources. Since control of, and access to, resources is a major governance concern for rural people, these programs represent the most substantive democracy and governance intervention in rural areas.

USAID's programs have served as models for other donors and partners in rural development in Africa. While the programs can be quite diverse and address a number of resources such as land, forests and wildlife, they rest on several common principles:

- Community capacity building, including sound business and technical skills;
- Legal recognition of community organizations, transfer of resource rights to these communities, and attention to property and procedural rights;
- Promotion of an appropriate economic environment where incentives and safeguards (particularly of rights and benefits) are in place; and
- Multi-level monitoring of all aspects of the program and adaptive management.



Mike McGahuey, USAID

*Community involvement in the management of local forests in West Africa has improved environmental conditions, promoted good governance, and offered economic opportunities.*

In 2002, USAID and a number of partners carried out a review of 20 years of CBNRM experience in Africa. Entitled “Nature, Wealth and Power: emerging best practice for revitalizing rural Africa,” the review emphasized the environmental, economic, and governance aspects of rural interventions and the need to integrate these features for long-term success. It outlines principles and lessons learned from field experience.

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In Namibia and Botswana, for instance, wildlife populations have dramatically recovered and for some species, such as springbok and oryx, the populations have doubled since the inception of CBNRM programs in the early 1990s. In addition, community incomes have risen significantly – more than tripling from 1998 to 2001 in Namibia. Most importantly, participation is growing, and demand for these programs is increasing. By 2002, more than 40,000 people were involved in these programs in Namibia. Similar results for wildlife have been achieved in Zambia and Zimbabwe, and the potential for these programs to impact governance, economic growth, and environmental sustainability remains high in Angola, Kenya, Mozambique, South Africa, and Tanzania.

Although other resources, such as forests, tend not to have the same economic potential as wildlife, programs applying CBNRM principles to these other resources have experienced positive results in Madagascar, Malawi, Mali, and Senegal. In Senegal, sound natural resources management with broad participation has been essential in managing rural conflict in the southwest of the country. In Mali's Upper Niger Valley, geographic information shows that the reduction and degradation in forest area has stopped after a long decline in forest cover from the 1960s to the 1980s. In some cases, forest areas have increased slightly since the 1980s when some of these principles were applied. Such programs have the potential to address issues of loss of biodiversity, forest degradation, and economic growth.

CBNRM programs in many cases represent the best land use. Detailed analysis of rural production systems in Botswana and Namibia shows that compared to crops and livestock, NRM programs not only have greater economic rates of return but they also support conservation of environmental services and biodiversity. Control of, and access to, resources is at the center of sound environmental stewardship, as well as for capturing economic benefits particularly for poverty reduction and rural governance. USAID-pioneered CBNRM programs have contributed to this “triple bottom line,” and have the potential to do more.

*Control of, and access to, resources is at the center of sound environmental stewardship.*

## Africa Regional/Sustainable Development

FY 2002 Obligation: \$0.625 million

USAID's Africa Regional/Sustainable Development (AFR/SD) Office has worked to strengthen critical links between biodiversity conservation, natural resources management, improved livelihoods and economic growth, and good governance throughout Africa. Assistance provided to missions has helped governments devolve authority, increase NRM-based income generation, and reduce environmental degradation. With a focus on CBNRM, forest management, global climate change, and environmental information management, activities are implemented through collaboration with local communities, NGOs, and governments. The AFR/SD Office also has managed the Central African Regional Program for the Environment (CARPE) project, as well as the gorilla and cheetah directives supporting the conservation of these endangered species. Since FY 2003, the natural resource programs and funding for AFR/SD, with the exception of the CARPE Project, have been transferred to the EGAT Bureau, and are now managed out of that Bureau.

## Africa Regional: Regional Center for Southern Africa

FY 2002 Obligation: \$1.436 million

The Regional Center for Southern Africa (RCSA) program is dedicated to increasing regional cooperation in the management of southern Africa's shared natural resources and wildlife through the promotion of transboundary natural resource management activities. When complete, an estimated 35 million hectares will be jointly managed for the sustained economic benefit of more than three million residents in the targeted transboundary area who depend on subsistence agriculture, fishing, and environment-based tourism (ecotourism) for their livelihoods.

USAID has played a role in galvanizing government support for Four Corners, a transboundary natural resource management area in Botswana, Namibia, Zambia, and Zimbabwe. This community and private-sector initiative has been endorsed by the governments of Namibia, Zambia, and Zimbabwe. In 2001, Mozambique, South Africa, and Zimbabwe signed a declaration of intent to establish the Great Limpopo transboundary area. RCSA helped draft the Great Limpopo Transfrontier Area Management plan and strengthened the International Coordinating Committee, its joint management body. In addition, RCSA assisted Mozambique and Zimbabwe in formulating guidelines for managing shared resources. This cooperation resulted in a community-based model of collaborative transboundary natural resource management in ZIMOZA, a new transboundary area involving Zimbabwe, Mozambique, and Zambia.



*Men and women throughout Africa rely on fish and other natural resources for their livelihoods.*

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## **Africa Regional: Regional Economic Development Service Office for East and Southern Africa**

FY 2002 Obligation: \$0.2 million

USAID's Regional Economic Development Service Office for East and Southern Africa (REDSO) is undertaking a feasibility study for the establishment of an East African Conservation Endowment Fund. The endowment fund initiative aims to help fund the operating budgets for the Kenyan, Ugandan, and possibly Tanzanian Wildlife Services in face of declining revenues from tourism. REDSO also supported the development of regional environmental impact assessment guidelines to improve the management of shared ecosystems in East Africa. Activities supported under this project have included an institutional analysis of transboundary natural resources management for each country; a status report on shared ecosystems in East Africa with respect to socioeconomic uses; terrestrial and aquatic shared ecosystems; and a status report on national environmental policies, legislation, and practices with respect to environmental impact assessments in East Africa. Moreover, in collaboration with IUCN, USAID promotes and supports the professional development of environmental impact assessment capacity in East Africa to enable countries to fully use the assessment process as a decision-making tool.

Implementing partners include: East African Wildlife Society, African Center for Technology Studies, IUCN, East African Regional Office.

## **Central African Regional Program for the Environment**

FY 2002 Obligation: \$3.0 million

The Central African Regional Program for the Environment is a long-term USAID initiative to address the issues of biodiversity loss and deforestation in the Congo Basin. One of the least developed regions of the world, the Congo Basin holds massive expanses of closed canopy tropical forest, second in area only to the Amazon Basin. However, unsustainable timber exploitation, shifting cultivation, urban expansion, and other human pressures pose increasing threats to this globally-significant forest resource. At the present annual rate of deforestation, these forests could be decimated in the next 50 years. Loss of forest cover on this scale poses serious risks of loss of biodiversity, as well as carbon dioxide emission into the atmosphere.

CARPE works in nine Basin states including Burundi, Cameroon, Central African Republic, Democratic Republic of Congo, Equatorial Guinea, Gabon, Republic of Congo, Rwanda, and São Tomé e Príncipe. The program is implemented by a team of U.S.-based NGOs and U.S. government agencies working in collaboration with the region's governments and local NGOs.

For the initial phase of the program (1995-2001), CARPE focused on researching factors driving deforestation and forest degradation. In 2002, the program shifted from its initial information gathering stage toward implementation. As a first step, CARPE headquarters have been moved from Washington, D.C. to the Democratic Republic of Congo Mission in Kinshasa, where resources can more efficiently focus on implementing local activities.

USAID plans an impressive increase in annual funding for conservation in the Congo Basin from \$3 million to \$15 million. This increase resulted from the launching of the Congo Basin Forest Partnership, a collaboration of 29 governmental and international organizations. The U.S. contribution to the partnership was officially announced by U.S. Secretary of State Colin Powell at the World Summit on Sustainable Development held in

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Johannesburg, South Africa in September 2002. CARPE will be the primary mechanism by which the United States will implement Congo Basin Forest Partnership initiatives.

The Congo Basin Forest Partnership seeks to promote economic development and alleviate poverty, while promoting forest conservation programs in Cameroon, Central African Republic, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, and Republic of the Congo. CARPE will contribute to the partnership's goals through its investment in the greater Basin area, while the U.S. contribution will help further CARPE's goals through its support to the 11 priority landscapes within the CARPE project area.

Implementing partners include: African Wildlife Foundation, Conservation International, National Aeronautics and Space Administration, Peace Corps, Smithsonian Institution, U.S. Department of Agriculture/Forest Service, University of Maryland, U.S. Fish and Wildlife Service, University of Virginia, Wildlife Conservation Society, World Resources Institute, and World Wildlife Fund.

### **Central Africa: Mountain Gorilla Habitat Conservation — Directive**

FY 2002 Obligation: \$1.5 million

The gorilla is listed on IUCN species survival commission's Red List of Threatened Species. Gorilla habitat overlaps with some of the poorest and most conflict-ridden areas of the world. Mountain gorillas in Central-East Africa, for example, are found in areas near the highest human population densities and growth rates in Africa and are menaced by rapidly increasing agricultural expansion. Despite these circumstances, signs of hope remain. The mountain gorilla populations in Rwanda, Democratic Republic of the Congo, and Uganda have increased by 10 percent during the past ten years (from 320 to approximately 355 individuals).

Since FY 2001, USAID has responded to the need to support gorilla conservation efforts through support to The

Dian Fossey Gorilla Fund International (DFGFI), International Gorilla Conservation Program (IGCP, a consortium of AWF, Flora and Fauna International, and WWF), and WCS. The majority of support has helped partners promote regional approaches to the conservation of mountain gorillas in the Virungas with an emphasis on trans-boundary coordination, protection/anti-poaching, community participation, economic alternatives, and research and habitat conservation. Limited additional support has assisted partner programs for the critically threatened western lowland (Cross River) gorillas and the eastern lowland gorilla, including assessments, protection, awareness raising, and policy dialogue.



Craig R. Sholley/WWF

*Mountain gorillas in the Virungas and Bwindi Impenetrable Forest benefit from conservation efforts supported by USAID and its partners.*



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Accomplishments in the year 2002 include the establishment of the Tayna Gorilla Reserve, a community initiated and community managed conservation area. The initiation of joint border patrols involving the protected area authorities of Rwanda, Uganda, and the Democratic Republic of Congo across national boundaries and the promotion of regional information sharing mark other important achievements. Partners also worked with communities to develop environmentally sustainable enterprises.

Implementing partners: DFGFI, WCS, and IGCP.

### **Democratic Republic of Congo: Congo River Environment and Development Project**

FY 2002 Obligation: \$0.665 million

The Democratic Republic of Congo has spectacular natural assets, including the world's second-largest expanse of tropical rainforest, and is home to three important primate populations: the mountain gorilla, chimpanzees, and bonobo. Unfortunately, the Congo's rich natural heritage has suffered from years of conflict. USAID believes the best way to address environmental problems is to strengthen the constituency for environmental protection and conservation within the country and provide alternative sources for livelihoods by improving agricultural productivity and rural infrastructure.

The Congo River Environment and Development Project, implemented by Innovative Resources Management, is empowering Congolese institutions to assume a proactive role in determining and implementing national, regional, and local environment and development agendas with a focus on freshwater and riparian biodiversity. This project works to improve both biodiversity conservation and the livelihoods of fishing communities along the Congo River. Approximately 25,000 households are expected to benefit from the project.

In FY 2002, the project conducted an inventory and identification of fish species found in the Congo River between Bas-Congo and Mbandaka in the Equateur Province. The project supported a campaign to educate fishing communities on environmentally sound alternatives to the use of illegal nets and poison. In addition, the project engaged fishing communities and local private entrepreneurs to help support the reparation of a cold storage facility in Inga.

Implementing partners include: Innovative Resources Management.

### **Ghana: Economic Growth — Ecotourism and Agroforestry Activities**

FY 2002 Obligation: \$1.69 million

USAID/Ghana promoted activities in ecotourism with an objective of promoting environmentally and socially sound long-term economic growth. Ecotourism is being developed around natural forests for non-consumptive use of wildlife and natural resources. The program contributes towards conservation of the natural forests as well as towards economic well-being for the local residents. A Food Security PL-480 program also supported agroforestry activities. In addition, the Mission's environmental initiative included the introduction of more efficient household stoves to lower consumption of charcoal for cooking, thereby helping preserve the country's dwindling forest resources.

## Guinea: Increased Use of Sustainable Natural Resource Management Practices

FY 2002 Obligation: \$2.0 million

The USAID/Guinea NRM program assists small landholders to conserve the natural resource base by investing in more profitable and less destructive agricultural and NRM practices. The program works toward improving natural resource management capacity of community-based organizations and establishing a policy environment, which empowers local populations to manage their natural resources and promote long-term investments in conserving the natural resource base. The USAID program also provides assistance for sustainable production of cash crops and new village enterprises, which have brought additional incomes to communities. The desired end-products are sustainable increases in farm production and productivity, along with improved, participatory management of forest and other natural resources. USAID is also assisting Guinea in addressing environmental degradation in the forest region caused by several hundred thousand refugee farmers from Sierra Leone and Liberia.

Results of the natural resource management project include significant increases in areas of protected areas, the number of forest sites, and areas under sustainable agricultural practices. To date this program has resulted in 88,630 hectares of managed forests. The Government of Guinea adopted a co-management approach that allows local populations to share the responsibility for the benefit of managing the classified forests. By the end of 2002, five classified forests covering 88,189 hectares were under co-management plans mutually agreed upon by five democratically-elected inter-village committees and the National Directorate of Forest and Waters. Integrated into forest co-management are the chimpanzee protection activities. Rather than only creating a boundary for wildlife protection, the project works by educating local villagers about the importance of biodiversity. The project concentrates efforts on increasing local capacity for wildlife monitoring, public outreach, and resolving human wildlife conflicts.

## Kenya: Improved Natural Resources Management in Targeted Biodiverse Areas by and for Stakeholders

FY 2002 Obligation: \$2.22 million

In Kenya, conservation focuses on areas within and adjacent to strategic national parks and reserves. The Improved Natural Resources Management program supports efforts that lessen, reverse, or halt the unsustainable use of the natural resource base through an integrated approach addressing the economic, policy, cultural, and human resource capacity challenges of conservation. The program focuses on influencing community behavior change by promoting favorable incentives to improve natural resources management. Activities include: land improvement programs such as agroforestry, watershed, and range improvement activities; the promotion and development of nature-based businesses; building constituency for conservation among Kenyan citizens; and supporting the management of protected areas.

In 2002, the implementation of eight site-specific initiatives secured 11,150 hectares of land for conservation, bringing a total of 668,090 hectares in community/private conservation area to date. In collaboration with the private sector, a USAID



*Grevy's zebras graze savannah grasses.*

Mary Rowen, USAID

program created the first-ever conservation land lease scheme in which 77 landowners bordering the Nairobi National Park agreed not to sell, fence, subdivide, or carry out any illegal wildlife practices in 2,546 hectares. In the same period, 5,420 individuals gainfully benefited from the community wildlife program through training, dividends or exchange visits. Nature-based enterprises generated \$143,000, created 97 new jobs, and 1,647 community members became new business shareholders.

USAID also designed new forestry and marine programs. The forestry program aims to build the capacity of government agencies and offer substantial technical help to communities. The program provided technical assistance in the identification of site-specific interventions in three forest/community areas in the North coast, Mt. Kenya, and Laikipia. The Kenya Coastal Management Initiative has prepared a comprehensive work plan that fosters local-level stakeholder participation in coastal resource management and helps develop a national maritime policy for Kenya.

### **Madagascar: Biologically Diverse Ecosystems Conserved in Priority Conservation Zones**

FY 2002 Obligation: \$8.45 million

With more than 300 endemic species and the highest biodiversity priority in Africa, Madagascar numbers among the top three global “biodiversity hotspots.” During the past decade, program investments in rural areas designed to conserve biodiversity, improve management of forests and other natural resources, and reduce poverty have begun to yield impressive results.

Today, Madagascar’s internationally respected national park system protects eight percent of Madagascar’s forests (up from 4.7 percent in 1989). The Agency contributed to increasing the national park system from 1.1 million hectares in 1996 to 1.75 million hectares in 2000. By the end of 2000, all of the diverse terrestrial ecosystems were represented in the country’s protected area system.

USAID has been a primary donor to the biodiversity component of Madagascar’s National Environmental Action Plan since 1990. The plan concentrated activities in its first phase around priority protected areas using an integrated conservation and development approach that linked poverty reduction, rural development, trade, natural resources management, and disaster mitigation within an eco-region-based conservation and development approach. In phase two, investments shifted to a larger eco-regional approach that acknowledged regional-level economic, social, and infrastructure development concerns; community-centered interventions to reduce slash-and-burn agriculture; and on the importance of developing the capacity of local NGOs and farmer groups to address environment and development concerns. In the third phase (2003-2008), the Mission plans to build on this eco-regional approach.

USAID’s assistance in transferring of natural resource management from the state to local communities has allowed the communities to begin managing natural resources for their own long-term benefit. With the support of USAID pilot activities, seven forest management contracts and seven land-use agreements have been signed between local community associations and the Ministry of Water and Forests. Management of more than 50,000 hectares



Mark Freudenberger

*Madagascar is home to an estimated 300 species of butterflies.*

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of forest has been transferred to communities, benefiting more than 1,000 rural associations, and 16,000 farmers in 575 farmer associations. These farmers have abandoned slash-and-burn farming (the primary cause of deforestation in Madagascar), and are now using sustainable production techniques to stabilize cyclone-vulnerable hillsides. Since the dependence on slash-and-burn agriculture has decreased, farmer incomes have risen by an average of 37 percent. Attempts are now being made to link farmers near biodiversity-rich habitat to international markets for forest products such as essential oils.

Developing a long-term sustainable financing strategy of environmental institutions has been a significant USAID initiative during the last year. USAID worked with the Malagasy Sustainable Financing Commission to identify financing instruments, from trust funds and debt swaps to environmental fees. USAID also supported development of a long-term financing strategy and discrete studies of different environmental organizations. These steps have encouraged the Malagasy to recognize their potential to shift from external donor assistance to internally mobilized and managed funds.

Implementing partners for USAID work in Madagascar include PACT, WWF, CI, Chemonics, International Resources Group, the Peace Corps, Montana State University, and Cornell University.

### **Malawi: Increased Sustainable Use, Conservation, and Management of Renewable Natural Resources**

FY 2002 Obligation: \$1.607 million

USAID/Malawi is helping communities adopt CBNRM practices such as tree planting, conservation of natural forests, beekeeping, and fish farming. These activities benefit more than 80 percent of the rural population, who depend on the natural resource base for at least part of their livelihood. USAID has worked with the Government of Malawi to implement a comprehensive policy and legislative reform program that increases community and private-sector involvement in natural resources management and transfers responsibilities from central government to the local level. This shift in policy is encouraging further community participation and will likely improve Malawi's biodiversity conservation capacity. The Government of Malawi has finalized and signed co-management agreements with local communities around Chimaliro Forest Reserve and Liwonde Forest Reserve, giving the Ministry, District officials, and local communities clear authority to implement these management plans.

USAID has contributed to the biodiversity conservation through the Community Partnerships for Sustainable Resource Management activity, a small grants program that succeeded in protecting wildlife reserves and natural ecosystems from illegal harvesting while providing income-earning opportunities to rural communities. The program has supported co-management and enterprise development initiatives in areas adjacent to Liwonde National Park, Lengwe National Park, Nyika National Park, Vwaza Game Reserve, and 14 other sites with small grants. It has also worked with 57 village beach committees and other stakeholders to develop a management plan for Lake Chilwa, a Ramsar Wetland of International Importance.

### **Namibia: Increased Benefits Received by Historically Disadvantaged Namibians from Sustainable Local Management of Natural Resources**

FY 2002 Obligation: \$2.224 million

USAID supports a community-based natural resource management program that helps communities register as conservancies. The purpose of the conservancies is to increase local responsibility and ownership over wildlife,

and sustainably managing wildlife for the benefit of its members. The conservancy formation has served as a base for politically active civil society. The program introduces economic incentives that are supported by sound social, democratic, and environmental principles through effective natural resources management.

The Agency has achieved outstanding results under this program during the past five years. Conservancies have moved rapidly to formalization, with 15 now registered, and 34 more currently organizing. Almost 41 million hectares of communal land is now under local management, with more than 34,453 individuals receiving benefits. Activities in the conservancy areas have generated more than \$1.1 million in new income from enterprises such as campsites, craft sales, thatching grass, and employment at tourist lodges. This income is expected to increase substantially when conservancies enter into contracts with additional private-sector tourism owners and operators.



Mary Rowen, USAID

*Listed as an endangered species on CITES, cheetahs in Namibia and throughout the world benefit from local management of natural resources.*

Implementing partners include: WWF, which has subcontracts with World Learning and Management Systems International.

### **Tanzania: Improved Conservation of Coastal Resources and Wildlife in Targeted Areas**

FY 2002 Obligation: \$3.017 million

USAID/Tanzania supports safeguarding of biological diversity while contributing to economic growth through ecotourism. Agency funds are being used to improve management practices in the national park network, the national system of game reserves, the coastal and marine ecosystem, and community-based approaches in areas adjacent to protected areas. The Agency's environment program has strengthened Government of Tanzania institutions with policy analysis, strategic planning, and natural resources management to halt degradation in and around national parks, reserves, and marine environments.

Important milestones were reached in three areas: community-based conservation, coastal resource conservation, and protected area management. Tanzania took steps to incorporate Wildlife Management Areas (WMAs) as a key feature of its conservation policy that empowers local communities to manage and benefit directly from wildlife resources on village lands. A major milestone in this regard was the government's approval and signing into law the WMA Regulations. Community-based conservation approaches in the Tarangire and Ugalla ecosystems have been particularly successful. In Tarangire, nine rural communities have negotiated profitable partnerships with the private sector in conservation-based economic activities. Nearly 6,000 farmers in three districts surrounding the Ugalla Game Reserve benefited from training in sunflower cultivation, improved environmentally friendly beehives, fish ponds, and Moringa farming, grossing more than \$30,000 in additional income.

In addition, the Tanzania Coastal Management Partnership program promotes the sustainable use of coastal resources, including mariculture, and coastal tourism, through improved environmental policies and community-based natural resources management. An historic breakthrough was the approval and signing of the National Integrated Coastal Management Strategy in December 2002 that cleared the way for an integrated coastal management program in all coastal provinces.

Implementing partners include: Africare, AWF, Tuskegee University, URI/CRC, and WWF.

### **Uganda: Critical Ecosystem Conserved to Sustain Biological Diversity and to Enhance Benefits to Society, and Expanded Sustainable Economic Opportunities for Rural Sector Growth**

FY 2002 Obligation: \$1.607 million

Uganda's lush rainforests are home to an impressive array of rare primate and bird species, including the mountain gorilla, the rarest of the great apes. USAID has supported natural resources management activities in Uganda for the past 15 years.

The Agency contributed to the conservation of biodiversity on a regional basis by supporting improved management in the protected areas, including the Virunga montane forests – a section of a transboundary ecosystem stretching into the Democratic Republic of Congo and Rwanda, and home to more than one-half of the world's population of mountain gorillas. Accomplishments include: establishing a revenue-sharing policy through the Ugandan Wildlife Authority, which allows for 20 percent of gate fees to be contributed to local communities; developing enterprises with communities living adjacent to National Parks; establishing a visitor center at the Queen Elizabeth National Park; and, through a community initiative, supporting the development of tourism accommodation at Nyakalengijo-Rwenzori Mountains National Park. Agroforestry "buffer zone" activities were also conducted to provide a source of income and improved agricultural production in communities living adjacent to protected areas.

The Agency was instrumental in designing a new approach to Uganda Wildlife Authority's annual operations planning that introduced improved procedures of administration, budgeting, and priority setting at the protected area level. During the past two years, the program resulted in marked increase in land placed under improved management with 19 protected area management plans now in place.



WWF-Canon/Roger Leguen

*USAID programs strive to ensure the sustainability of natural resources for future generations.*

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Primary implementing partners of these programs include: AWF, Africare, EcoTrust, and ICRAF.

**Zambia: Community-Based Natural Resource Management and Sustainable Agriculture Program**

FY 2002 Obligation: \$0.3 million

USAID's natural resource management program is active in three Game Management Areas on the border of Kafue National Park in southern Zambia. This five-year program (2001-2006) aims to improve the welfare of people living in the project area and ensure the sustainability of natural resources for future generations. Focusing on agriculture and natural resources management as a strategy to improve rural livelihoods and conserve natural resources, the program addresses household livelihood security, policy and civil society education, and trans-boundary natural resources management (TBNRM).

The policy support component is working to increase the capacity of civil society to participate in the policy making process. Activities include analyzing policy frameworks that govern Game Management Areas, developing a coalition of civil society institutions to advocate for stronger policies, and supporting dialogue with the government.

The TBNRM component capitalizes on the economic opportunities presented by ecotourism. Activities aim to increase the number of tourists to Kafue National Park and expand the benefits of cross-border trade to rural groups in Zambia. Initiatives include promoting community goods and services in regional markets, negotiating community collaboration with ecotourism operators, and organizing exchange visits for community residents with CBNRM programs in Botswana, Namibia, and Zimbabwe.

Major implementing partners of these activities include: AWF, CARE, and WCS.

# ASIA AND THE NEAR EAST

The Asia and the Near East region is the most biologically diverse on earth. The region boasts the world's highest mountain system, a vast rainforest complex, and more than one-half of the world's coral reefs. Its diverse ecosystems support rich biological resources that play a critical role in sustaining people's livelihoods.

Over the past 50 years, this region has been facing serious environmental challenges, as natural resources get exploited for international trade and to sustain a growing population. The harvesting of products such as timber and fish, and the expansion of agriculture into primary forests, wetlands, and grasslands have severely impacted the region's biodiversity.

The greatest threat to biodiversity in ANE remains the loss and degradation of habitat. Some countries in the region have lost 70 to 90 percent of their wildlife habitats. Forest habitats in particular have been severely threatened, with 95 percent of the region's frontier forests already lost. The region's coral reefs are threatened by over-fishing, pollution and agricultural runoff. It is estimated that approximately 80 percent of the world's reefs are endangered, and more than half of them are in this region.

USAID is responding to this challenge by supporting biodiversity activities in 14 countries in the region, with more than \$36 million in funding in FY 2002.



USAID's portfolio in Asia and the Near East includes work in northern Africa.



Burt Jones & Maurine Shimlock, Secret Sea Visions

*The Asia and the Near East region contains more than one-half of the world's coral reefs.*



## East Asia Regional: East Asia and Pacific Environment Initiative

FY 2002 Obligation: \$7.0 million (ESF Funds)

*The East Asia and Pacific Environment Initiative addresses critical environmental challenges and opportunities in forest and land-use management, coastal and marine resources management, and environmental pollution.*

The East Asia and Pacific Environment Initiative (EAPEI) (1999-2002) addresses critical environmental challenges and opportunities in forest and land-use management, coastal and marine resources management, and environmental pollution. The program works in Cambodia, Indonesia, Laos, Malaysia, the Federated States of Micronesia, Palau, the Philippines, Samoa, the Solomon Islands, Thailand, Tonga, and Vietnam.

The initiative supports improvements in forest-fire management and response in Indonesia. Activities analyzing the sources and impacts of fires, as well as offering alternatives to slash-and-burn agriculture, are proving valuable in identifying policy reform opportunities and promoting decentralization, governance, and equity objectives of the new Indonesian government.

In addition to forest-fire management, EAPEI supports coastal and marine resource management activities. Notable progress is being made documenting and combating destructive fishing practices such as cyanide and dynamite fishing and over harvesting in the region. The program also supports WWF's efforts to enhance marine conservation efforts in Bali Barat and especially the Sulu Sulawesi Marine Ecoregion.

Programmed by the Bureau of East Asian and Pacific Affairs of the U.S. Department of State, EAPEI is managed by USAID's Bureau for Asia and Near East. Implementing partners include: 1) U.S. Government agencies (the Environmental Protection Agency, National Oceanic and Atmospheric Administration, U.S. Department of Agriculture's Forest Service, Department of Interior, Office of Surface Mining and the National Park Service); 2) U.S. non-governmental organizations (CI, TNC, WWF, and WRI); 3) international agricultural research centers such as ICRAF and Center for International Forestry Research; 4) the University of Rhode Island's Coastal Resources Center; and 5) international organizations such as the South Pacific Regional Environmental Program. The EAPEI Program ended in FY 2002.



Jennifer Hancock

*In addition to reforming destructive fishing practices and protecting coral reefs, EAPEI's Pacific activities includes sea turtle monitoring.*

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## **ANE — Office of Technical Support: Program Design and Learning**

FY 2002 Obligation: US\$700,000

The ANE Program Design and Learning funds provide support for an environmental policy advisor responsible for providing environmental policy analysis and expert assistance in the design, implementation, monitoring, and evaluation of strategic plans and programs in the area of natural resource management including biodiversity conservation. Other activities supported through these funds include combating the spread of invasive species in the ANE region, and research and analysis of links between forests, conflicts and poverty in order to reduce conflict, promote sound governance, and improve forest management in the Asia region.

## **ANE Regional — Global Development Alliance: Papua/Bird's Head Regional Development**

FY 2002 Obligation: \$3,000,000

Largely rural and barely developed, the Bird's Head peninsula of Papua, Indonesia, is home to one of the highest concentrations of terrestrial and marine biodiversity in the world. The peninsula is also the location of natural resources of enormous value, including timber, minerals, oil, and gas. These resources are increasingly being exploited, with little benefit going to the region. The Bird's Head Global Development Alliance combines expertise and resources of USAID and British Petroleum (BP) that is developing a large natural gas project in the region, to promote conservation of the peninsula's unique biodiversity and ensure the development of sustainable environmental practices for the region.

The three-year program is working to strengthen and foster the development of new and existing civil society organizations that can provide effective advocates for environmentally sound development, monitor local government operations and improve management practices, and build local capacities to conduct participatory medium-term investment planning. Assistance is also being provided to local communities to improve their livelihoods and incomes from sustainable forestry, agroforestry, agriculture, and fishing. The Alliance is being financially supported by BP and USAID/Indonesia. Major implementers of the program are local governments and NGOs, with technical assistance from the Indonesia Mission.

## **Bangladesh: Improved Management of Open Water and Tropical Forest Resources**

FY 2002 Obligation: \$0.9 million

Recent studies indicate that more than two-thirds of all forested lands in Bangladesh have been cleared in the past 30 years, and that indiscriminate conversion of perennial and seasonal water bodies has been occurring since the late 1970s. Pressures on Bangladesh's biological resources are intense and growing, because of poor management of aquatic and terrestrial resources, population growth, overexploitation, unplanned development of infrastructure, and agricultural expansion onto marginal lands.

To reverse these trends, USAID is working with the Government of Bangladesh and local NGOs to improve the management of open water and tropical forest resources. USAID's activities focus on community-based, co-management approaches and institutional capacity development in both governmental and nongovernmental organizations.

In early 2003, USAID and the Government of Bangladesh signed a Strategic Objective Grant Agreement to address environmental degradation, with emphasis on conserving tropical forest and fresh water aquatic

resources. USAID's total estimated contribution under the agreement will be \$11.6 million for a five-year period. Activities will include co-managing tropical forest resources, establishing the link between the terrestrial and aquatic ecosystems, and building local capacity in aquatic and tropical forest resources management. Activities will also promote ecologically sound management of aquatic resources (fisheries, other wetland products), and implement tree plantation activities for habitat restoration. The programs will contribute significantly to increasing the global carbon stock. In addition, consolidation of lessons learned in community-based resource management will serve as a precursor to the development of a protected area management system in Bangladesh.

### **Egypt: Egyptian Environmental Policy Program**

FY 2002 Obligation: \$7.686 million (ESF Funds)

Centered on sector policy reform, the Egyptian Environmental Policy Program addresses some of Egypt's most pressing environmental problems, while promoting public-private partnerships, financial sustainability of environmental management solutions, replicability of best environmental practices, and institutional strengthening for entities responsible for environmental management. Recognizing that the expected rapid growth in population and development of the Red Sea region must be managed to ensure minimum impact on the region's delicate environmental resources, the program supports the Egyptian Environmental Affairs Agency of the Ministry of Environment to promote protection and sustainable use of the Red Sea resources. It works with the Tourism Development Authority of the Ministry of Tourism to ensure that development along the Red Sea coastline uses the best environmental management practices available and reflects the differing developmental and ecological sensitivities of the Red Sea region. Finally, through the program, USAID provides cross-cutting support on environmental education, awareness, and communication to promote conservation and sustainable tourism.



Pete Cox

*Bird-watching is a popular ecotourist activity in the Red Sea region and elsewhere in Egypt.*

In FY 2002, the program achieved significant results. In addition to drafting the Red Sea Giftun Islands Pilot Management Plan and preparing preliminary maps of the proposed boundaries for a new protected area in the southern Red Sea zone, the Egyptian Environmental Policy Program completed an environmental impact assessment tool for hotels and resorts that was approved by the Tourism Development Authority and Egyptian Environmental Affairs Agency. It also established GIS units within the Hurghada Red Sea Protectorates office and the Tourism Development Authority's environmental monitoring unit for use in coastal zone planning and management, implemented environmental management systems in five Red Sea hotels, and launched an environmental education supplement in Red Sea area schools.

### **Indonesia: Strengthened and Decentralized Natural Resources Management**

FY 2002 Obligation: \$12.0 million

Indonesia is comprised of 17,000 islands extending some 5,000 kilometers from east to west along the equator. This vast expanse contains 47 ecosystems, ranging from ice-fields to humid lowland forests, including the world's largest area of mangroves and 100 million hectares of forest. This impressive network of ecosystems is home to the world's greatest abundance of plant and marine biodiversity.

Indonesia's wealth of natural resources is shrinking rapidly under the onslaught of logging, land clearance, and man-made forest fires. Through technical assistance to the Ministry of Forestry and Agriculture, local Governments, and communities, USAID's Natural Resources Management Program promotes decentralized forest management, empowerment of coastal communities, and capacity development of local environmental NGOs. The program provides critically needed policy advice to the central government to improve its guidance of the decentralized natural resources management process. It is building capacity to manage forest, protected areas, coastal zones, and mineral resources at the district and provincial levels in East Kalimantan, North Sulawesi, Papua, Sumatra, and West Java.

In 2002, 950,000 hectares of forest and coastline were brought under better management, thus improving habitat protection for plants and animals. In North Sulawesi, the number of villages participating in USAID-sponsored, community-based coastal zone management plans rose sharply from 5 to 30. The local government has passed a law authorizing villages and sub-districts to create and enforce local coastal management plans in addition to providing funds to these communities to develop their plans. This law is linked with the draft National Coastal Management Law, expected to be passed in late 2003. Fish abundance, fish diversity, and coral reefs continue to improve in these areas implementing coastal management plans. More than 60 percent of monitored sites experienced a 10 to 20 percent increase in hard coral from 1997 to 2002. In Bunaken National Marine Park, the management board now raises and retains sufficient funds through visitor fees to fully fund the operational costs of patrolling and managing the park. As a result of the patrols, blast and cyanide fishing have ceased, down from an estimated 4 to 8 incidents per day before the patrols began operating. Coral reefs inside the marine park have grown by an average of 10 percent in 2002. The national government is using Bunaken as its model for drafting the national policy guidance authorizing local co-management of all national parks.

In East Kalimantan, the USAID-sponsored West Kutai Regional Forestry Planning Group is receiving direct financial support from the local government and has successfully leveraged more than Rp 4.9 billion (approximately US\$ 105 million) from the private sector and other donors. This forestry management model is being replicated by six other districts in East Kalimantan with only minimal USAID technical assistance. The Sungai Wain Watershed Management Board, established to oversee the protected area watershed servicing the City of Balikpapan which contains approximately 40 percent of the population of East Kalimantan, is now operational



Photos: Burt Jones & Maurine Shimlock, Secret Sea Visions

*At Komodo National Park in Indonesia, fish, anemone, and other coral reef inhabitants benefit from coastal management plans. Popular tourist attractions, many coral reefs in the Pacific experienced a 10 to 20 percent increase in hard coral between 1997 and 2002.*



Jonathan Simon

*A tarsier clings to a tree in a forest in North Sulawesi, Indonesia.*

and fully funded by the three local governments within the watershed area. Illegal logging and encroachment by local villagers and businesses have stopped in the Sungai Wain protected area.

In the Bureau Peninsula of East Kalimantan, a USAID program has documented the existence of a viable population of nearly 2,000 orangutans. As a result of USAID's outreach and awareness activities, the companies operating timber concessions in the area have voluntarily set aside areas of key habitat for conservation and have designated other areas for selective, low-impact cutting in an effort to reduce habitat pressure on the last genetically sustainable population of orangutans known to exist in East Kalimantan.

Principal implementers include: Academy for Educational Development, CI, International Center for Research in Agroforestry, International Resources Group, TNC, University of Rhode Island, U.S. Department of Interior-Office of Surface Mining, Yayasan Kemala, Winrock International, and WWF.

### **Nepal: Increased Sustainable Production and Sales of Forest and High-Value Agricultural Products; Strengthened Governance of Natural Resources and Selected Institutions**

FY 2002 Obligation: \$0.8 million

Nepal is home to some 7,000 species of plants, 40 percent of which are endemic to the region. More than 80 percent of the population in Nepal are rural and dependent on local natural resources – forests, water, soil – for revenue and subsistence needs. The Government of Nepal has instituted one of the most progressive policies in the world for devolving the management of natural resources to local communities. To help implement this policy, USAID works through local partners to support the formation of user groups and build their institutional capacity. In addition, USAID seeks to raise rural income by promoting the development of small-scale enterprises, and improving access to markets for forest and high-value agricultural products. Public-private alliances are being created for certification and sustainable marketing of non-timber forest products.

Local success of this program is evident in the rise in the number of households producing forest and high-value agricultural products – a total of 338,000 farm and forest households, up 24 percent since 2001. Sales of products also increased to \$47 million, a 19 percent increase since 2001. Household needs (fuelwood, fodder, timber and non-timber forest products) and environmental concerns (increased biomass production, reduced soil erosion, and biodiversity conservation) are being better addressed through community-based natural resources management. Assistance is being provided on community forestry and buffer zone management, irrigation management, and hydropower catchment area development.

Approximately 1.8 million rural poor directly benefit from these programs. Primary beneficiaries of the programs are small farmers, and disadvantaged groups including the women and the very poor households. Women's participation is high; they make up 46 percent of the participants in the high-value agriculture program and more than 50 percent of the participants in the community-based forestry program. Programs are being implemented in 16 of the 75 districts in Nepal.



Photos: Safia Aggarwal, USAID

USAID activities in Nepal support CBNRM, including the formation of women's forest user groups (left) and enterprise development, such as ecotourist lodges (right).

Implementing partners include: the Canadian Center for International Studies and Cooperation (CECI), CARE, Chemonics International, the Federation of Nepal Chambers of Commerce and Industry, United Mission to Nepal, the U.S. Department of Interior, WWF, and EWW.


### **Philippines: Environmental Management Improved**

FY 2002 Obligation: \$4.1 million

The Philippines has a unique biological heritage, recognized as one of the richest in the world per unit area. The country is home to approximately 3,000 endemic plant species and more than 500 of the world's 700 known coral species. But this diversity is under severe threat due to over-fishing, destructive fishing practices, illegal logging, and the conversion of natural forests. To date, only 20 percent of original mangrove forest exists, less than 5 percent of old growth forests are intact, merely 5 percent of the coral reefs are in excellent condition, and most fishing grounds are over fished. Managing the country's natural resources wisely to protect diversity, supply and quality is critical for sustained economic growth.

USAID's program aims to improve local environmental governance to conserve biodiversity, stimulate economic growth, and resolve conflicts over the use of natural resources. USAID assistance supports capacity building of local government and communities in order to improve their development and implementation of coastal and forest resources management plans.

The program has focused on fostering incentives for conservation. For example, the issuance and renewal of licenses has been linked to commercial and municipal fishing fleets performance based on the sustainable yield of fish stocks. USAID's activities also support local communities' establishment and operation of 83 marine sanctuaries covering more than 400 hectares of coral reefs, sea grass, and mangroves. Community managed sanctuaries are helping to regenerate depleted fish populations and act as biodiversity corridors or protected areas to expand the protected habitat for endangered plants and animals. In 2002, USAID placed an additional 1,870 hectares of coastal resources under improved management for a total of 301,870 hectares. USAID is further supporting the efforts of 46 municipalities to improve their management of forest lands.



Municipal fishers' groups and local forest dependents receive assistance to gain awareness of their rights and responsibilities as natural resource users. In cooperation with Center for International Environmental Law, USAID supports environmental law groups that help 50 local communities involved in community-based natural resources management. The organizations represent communities in judicial and administrative courts, develop strategies to promote and defend community rights, and employ dispute management processes to address conflicts over natural resource use.

Finally, USAID played a lead role in negotiating and closing debt reduction and tropical forest agreements signed in September 2002 by the Governments of the Philippines and the U.S., under the Tropical Forest Conservation Act. A \$5.5 million U.S. appropriation was used to treat \$41.25 million in Philippine debt to the U.S., which in turn will generate \$8.24 million in local currency to a Tropical Forest Conservation Fund during the next 14 years, in lieu of regularly scheduled interest payments, to support on-ground conservation activities of NGOs. USAID is now working to ensure establishment of a strong TFCA Board to manage the Fund and its grants. As a result of a wide participatory NGO consultation process supported by USAID, significant enthusiasm exists for future swaps and domestic fundraising under this program.

## EUROPE AND EURASIA

The Europe and Eurasia region contains a wide variety of ecosystems, ranging from the Atlantic coast to the Russian steppes, and from the boreal forest and tundra to Mediterranean forests and shrubland. The region is home to the world's largest population of bear and rare tigers, and serves as an important crossroads for large populations of migratory bird species shared with Africa, West Asia, and North America.

A century ago, Europe and Eurasia still contained vast and relatively intact natural areas. In the past 100 years, however, the landscape has been significantly modified by human activities. Deforestation, agricultural expansion, wetland drainage, modification to rivers, mining, and urban development have reduced the geographic breadth and fragmented important biodiversity habitat. Today, in many countries in this region, one half of all known vertebrate species are threatened.

Since 1989, USAID has worked with national and local governments, NGOs, and educational institutions to improve biodiversity conservation in Central and Eastern Europe and the former Soviet Union. USAID provided more than \$1.3 million of support in FY 2002.



Richard Warner

*Landscapes in Europe and Eurasia have been significantly modified by humans. Protected areas offer important habitat to the region's endangered biodiversity.*



## Bulgaria: Biodiversity Conservation and Economic Growth Project

FY 2002 Obligation: \$0.37 million (AEEB Funds)

The Biodiversity Conservation and Economic Growth Project began in May 2000 as a logical evolution of a decade of USAID assistance to biodiversity conservation in Bulgaria. The project capitalizes on past achievements related to the establishment of legal frameworks and administrative structures that support protected areas. It expands on past collaboration by supporting the implementation of the new park management plans. It also assists protected area managers in effectively engaging local communities in ecotourism, outdoor education, and sustainable extraction of wild natural resources. In addition, the project is working with the Government of Bulgaria to identify ways to generate and capture revenue for the long-term management of its protected areas.

Major accomplishments of USAID in 2002 include: the development of two separate community-based ecotourism development initiatives linked to national parks; completion of tourism infrastructure in both national parks; and identification and initiation of a Parks Endowment Fund that will support park management activities not covered by the state budget. In addition, an international ecotourism forum was organized to encourage a dialogue between public and private sector stakeholders. Participants exchanged experiences and provided input into the development of a national ecotourism strategy and Action Plan.

Along with these activities, an important policy success was marked by the reforming of national legislation relating to biodiversity conservation, medicinal plants, and environmental protection.



Rila National Park/Bulgaria; USAID BCEEG Project

*USAID supports conservation activities in Rila National Park in Bulgaria.*

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### **Croatia: Citizen Participation and Improved Governance; Growth of a Dynamic and Competitive Private Sector**

FY 2002 Obligation: \$0.3 million (AEEB Funds)

In collaboration with the Department of the Interior, USAID has helped improve park management and provide employment opportunities in the war-affected regions of Croatia. USAID and Department of the Interior have signed and implemented a park management training program to provide job skills training. The program encourages the re-integration of war-affected populations into Croatia and aims to increase tourism and improve park services at the Plitvice Lakes and Paklenica National Parks. Increased tourism will likely contribute to overall economic development as it will generate economic activity among small and medium enterprises.



Richard Warner

*Plitvice Lakes National Park in Croatia is listed by UNESCO as a World Heritage site.*

### **Russia: Forest Resources and Technologies, and Replication of Lessons Learned Projects**

FY 2002 Obligation: \$0.68 million (FSA Funds)

Russia has a total forested area of approximately 764 million hectares, 78 percent of which is located in the Russian Far East and Siberia. This represents more than 22 percent of the world's forested area and one-seventh of the Earth's carbon pool, and hence bears immense significance for global climate change. Globally important plants and animals are found in these forests, but unfortunately, illegal logging and unsustainable forest management threaten their habitats.

USAID's Forestry Resources and Technologies (FOREST) Project (2000-2005) works to conserve biodiversity and reduce the threat of global climate change. The project is developing a comprehensive approach to address forest use and management challenges. Components include: forest fire prevention, forest health and pest management, non-timber forest products and secondary wood processing, forest policy and legal reform, applied forestry research, and forest grant/loan program. In 2001, USAID also helped introduce a system for monitoring Siberian Moth outbreaks that devastate millions of hectares of Russian forests each year and pose a danger to countries importing Russian timber, including the United States.

The Replication of Lessons Learned (ROLL) Project matches partners, provides support services, and competitively awards moderate size (up to \$4,000) grants to Russian environmental organizations to carry out initiatives that extend the lessons from successful activities supported by USAID and other donors. USAID launched phase two of this widely recognized and successful program in Fall 2000. Russian organizations are building stronger networks among government, NGOs and the private sector to use best practices for cleaning up the environment, improving public health, and managing natural resources.

## LATIN AMERICA AND THE CARIBBEAN

From the hot Amazonian valleys to the high and cold Andean mountains, from the dry forests of Meso-America to the Pantanal and Chaco wetlands, the Latin America and Caribbean region is exceptionally rich in biodiversity. The region's diverse ecosystems are home to 40 percent of the plant and animal species of the planet and are considered to have the highest floristic biodiversity in the world.

This incredible biodiversity is under enormous threat today. The rate of deforestation in this region is one of the highest in the world; of the 418 million hectares of natural forest lost worldwide during the past 30 years, nearly one-half (190 million hectares) were lost in Latin America. In addition, nearly two-thirds of the region's coral reefs are threatened due to coastal development, over-fishing, and pollution. Brazil, home of the world's largest tropical rainforest, has the second largest number of threatened bird species in the world (103 species), and the fourth highest number of threatened mammals (71 species).

USAID is responding to this challenge by supporting biodiversity activities in 24 countries in the region, and receiving more than \$46 million in funding in FY 2002.



*A jaguar relaxes on a tree limb.*

Chemonics International

## Mexico: Critical Ecosystems and Biological Resources Conserved

FY 2002 Obligation: \$3.013 million

Mexico ranks among the five most biodiverse countries in the world and supports a high number of endemic organisms. Since 1992, the Government of Mexico has made a notable effort to implement its commitments under the Convention on Biodiversity. This has been demonstrated by its developing a system of protected areas that now cover almost 9 percent of the country's territory, by supporting a national system of information on biodiversity maintained by the Commission on Knowledge and Use of Biodiversity, and by creating a commission within its environment ministry to direct the conservation protected areas.

USAID has collaborated with the Mexican NGOs and the Government of Mexico to build organizational and technical capacity to conserve this country's resources

through many initiatives. This effort has been anchored on the Natural Protected Areas system in Mexico, the pillar of Mexico's conservation effort. The flagship of this effort has been the Mexico Parks in Peril program that has helped improve management of 11 protected areas in Mexico. Beyond these direct impacts, this program has helped train several of the key people now serving in the environment ministry.

USAID's program has supported coastal management work in the Meso-American Reef, the second largest reef in the world, and in the Gulf of California, one of the world's centers for marine mammal diversity. Working with the University of Rhode Island, USAID targeted communities living along these coasts to help them create management plans to support better use of these valuable areas. In 2002, USAID partners worked with the community of Xcalak to develop a management plan for a marine protected area that they had helped design and promote. The University of Rhode Island has also worked with the University of Quintana Roo to develop a Department for Natural Resource



Joshua Cinner

*With support from USAID, coastal communities have developed management plans to better use valuable coastal resources.*

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Management that has a strong coastal component. In 2002, the head of this department was appointed president of the university and is moving forward plans to raise the status of this department to become a Center for Resource Management within the university.

The Mission works with several partners developing regional plans to help local NGOs, government, and donors better define priorities for conservation investment. The plan for the Selva Lacondone in southern Chiapas is being adopted within the state of Chiapas' development plan. The information and collaboration base developed under the regional planning process in northern Yucatan was instrumental in producing early assessments after hurricane Isadore swept through the area in the fall of 2002. In the Selva Zoque, the regional planning process is being used by the state of Veracruz to begin developing a protected area in the region. The Park in Peril Program is contributing to regional planning by helping develop cross-border regional approaches to identify key conservation sites along the Sonora-U.S. border and between Guatemala and Mexico on the Yucatan Peninsula.

The Mexico Mission continues its work through the Wildfire Prevention and Restoration Program to award grants to support fire prevention and restoration activities around key protected areas that are threatened by fire. In 2002, the last call resulted in the support of 46 projects around 12 protected areas in Mexico.



*A cactus forest in Sonora, Mexico.*

Citlali Cortez



Laura Miller

*USAID programs in Latin America help protect birds of paradise and other tropical flora.*

## **Caribbean Regional: Improved Environmental Management by Public and Private Entities**

FY 2002 Obligation: \$2.5 million (ESF)

The Caribbean Regional Program seeks to protect ecosystems that underwrite tourism growth and other high potential economic diversification, address coastal environmental problems, and reduce land-based sources of coastal and marine pollution. The program focuses on Eastern Caribbean countries – Antigua and Barbuda, Dominica, Grenada, St. Kitts, St. Lucia, and St. Vincent – and works with the six independent states of the Organization of Eastern Caribbean States.

The program aims to increase competitiveness to meet international standards, increase access to best environmental management practices, implement environmental standards, reduce pressures on natural resources caused by coastal tourism, and reduce coastal pollution which will result in improved environmental management by public and private entities.

Activities include working with small tourism enterprises to reduce coastal pollution, as well as conduct environmental audits and introduce environmental certification programs and Environmental Management Systems that address water conservation, wastewater management and solid waste management. The program has also

developed satellite imagery-based land cover maps for St. Kitts/Nevis, St. Lucia, St. Vincent, Barbados and Grenada that can be applied to land use planning and related to economic development and disaster preparedness. The program provides technical assistance to foster the adoption of alternate, efficient and environmentally sound energy sources throughout the Caribbean. In addition, the program works with The Nature Conservancy to assess marine and coastal sites in the Grenadines and develop an environmental conservation initiative for these sites.

In addition, the Regional Environmental Management Program is working with the Caribbean Community (CARICOM) Secretariat on a region-wide program. This program aims to contribute to sustainable development by assisting small and medium-sized enterprises and the tourism sector to build capacity at the national and regional level; and to adopt eco-efficiency and cleaner production technologies, processes, and practices.

The implementing partners include the Caribbean Environmental Health Institute, Caribbean Association of Industry & Commerce, the Caribbean Tourism Organization, and CARICOM.

## **Central American Regional Environment Program**

FY 2002 Obligation: \$4.915 million

The USAID Central American Regional Environment Program, known by its Spanish acronym PROARCA (Proyecto Ambiental Regional para Centro America) promotes the effective regional stewardship of key natural resources in support of sustainable development. The program focuses on improving the Central American

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protected areas system, increasing local empowerment for stewardship of the environment and natural resources in target areas, and harmonizing and strengthening Central American environmental policy frameworks. In Phase I of the program, which ended in September 2001, the program implemented three major activities: Central American Protected Areas System; Coastal Zone Management; and Environmental Protection. Activities were implemented in Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. In its five years, PROARCA helped improve the management of 79 protected areas in Central America.

The Central American Protected Areas System was envisioned as a network of key ecosystems interconnected through “corridors” of biological material, both terrestrial and marine. The program supported the establishment of uniform criteria for selecting core protected areas to be included in the Protected Areas System.

The coasts of Central America and their associated coral reefs, mangroves, and sea grass beds are a center of biodiversity of great economic importance for fisheries, tourism, and other enterprises. The Coastal Zone Management field programs targeted priority coastal areas to address issues of poor governance and policies related to coastal zone management, and develop effective models for protection. Activities included gathering of baseline data, increasing public awareness of coastal issues, developing and implementing conservation and sustainable use practices and management plans, providing and strengthening local fora for discussion and negotiation of management plans and policy issues tied to sustainable use of coastal resources, and monitoring progress.

A major objective of the program has been the development of models of fiscal self-sufficiency for biodiversity conservation and sustainable use. PROARCA seeks opportunities for community participation to increase public involvement in managing protected areas and their buffer zones.

Implementation of the second phase of PROARCA began in late FY 2001. Anticipated outcomes in this phase include: improved management of protected areas; the development of a coherent legal and policy framework for regional conservation, expanded market access for environmentally friendly products and services, the harmonization of norms for environmental impact assessments and wastewater, and increased use of less-polluting technologies.

## **LAC Regional: Conservation of Region’s Biological Resources**

FY 2002 Obligation: \$7.304 million

### ***Parks in Peril***

The Parks in Peril (PiP) program – a partnership among USAID, TNC, local NGOs, and local governments – is one of the Agency’s most successful and important conservation activities. Since 1990, the program has worked to improve the protection of 37 critically threatened Latin American and Caribbean national parks and reserves. In 2002, eight new parks or reserves were added to the PiP portfolio.

The Parks in Peril program is an emergency effort to safeguard the most threatened ecosystems in the Latin American and Caribbean Region including cloud forests, coral reefs, tropical forests, and savannahs. The program strategy has been to strengthen partner organizations and build sustainable capacity to achieve enduring site conservation results. PiP has helped consolidate the tools, infrastructure, staff, institutional and technical capacity, and financing necessary to protect and manage protected areas of globally important biological

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diversity. The partnership demonstrated many lessons about successful multi-country and multi-partner collaborations, and dramatically improved the conservation status of protected areas where it has been active.

Since inception, PiP has protected more than 13.6 million hectares of natural habitat. It has turned “paper parks” into functioning protected areas in a dozen countries. USAID has “graduated” a total of 21 sites covering approximately 8 million hectares from the program; 15 countries have been involved, including: Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Panama, Paraguay, and Peru. Additionally, the institutional, administrative, and management capacity of more than 25 local NGOs has been significantly strengthened to ensure sustainable long-term management of parks and reserves.

During the past year, PiP worked with the private sector and the government of Bolivia to support the creation of Altamachi as the first Reserve in Cochabamba. In Mexico, the program helped raise \$1 million that, together with a previous \$1 million donation, will capitalize a trust fund to provide long-term financing for the El Triunfo Biosphere Reserve. PiP partner NGOs in the Mosquitia Region of Honduras and Nicaragua sponsored a bi-national forum that brought together local people with government and other stakeholders and resulted in government agencies agreeing to work with community leaders to prepare a bi-national environmental agenda for the protection and management of the Mosquitia. In Guatemala, fire prevention and control efforts near the Sierra de las Minas Biosphere Reserve reduced the incidence of fire by 8.9 percent inside the reserve and 11 percent in five key watersheds around it.

The PiP program continues to be a leader in developing sustainable financing mechanisms for protected areas. It is at the forefront of cutting-edge funding policy initiatives, such as water-use fees, conservation easements, private lands conservation, valuation of ecosystem services, mining mitigation, and carbon sequestration. Of the \$7.5 million USAID spending on this program, approximately \$5.8 million is provided by the LAC Bureau in Washington, while the rest comes from USAID missions in the region. PiP also has leveraged about \$70 million in non-USAID funds for park management.

### *The Neotropical Raptor Conservation Program*

The Neotropical Raptor Conservation Program, implemented by The Peregrine Fund, seeks to complement and strengthen bilateral efforts to conserve biodiversity by implementing a regional approach to raptor (diurnal bird of prey) conservation in tropical Latin America and the Caribbean (the neotropics). Raptor habitats in many countries throughout the neotropics face similar threats. Conservation of these habitats also require similar types of assistance in each of these countries – of training, capacity building, and access to expertise and best practices. The program is building a regional institution to address these needs. The institute is working to improve information gathering and dissemination, train local biologists and others, develop environmental education, and enhance long-term leadership, support, and administration of conservation efforts throughout the neotropics.

### **LAC Strategy and Planning Office: Alliance Activities**

FY 2002 Obligation: \$0.30 million

The LAC/Strategy and Planning Office alliance is a public-private partnership to assist Mexican communities with certified forestry operations to improve their resource management, forest products, and access to higher



paying markets. The project area is characterized by pine-oak forests with a remarkably high diversity of oak species. Forest managers have generally sought to limit the regeneration of oak species in favor of several marketable pine species. One element of the alliance seeks sustainable uses for oak, in order to add value to traditionally under-valued species and promote the management and conservation of the full suite of species in these unique ecosystems.

Implementing partners include: Rainforest Alliance, the Consejo Civil Mexicano para la Silvicultura Sostenible (the designated SmartWood certifier in Mexico), and the U.S. Forest Service.

### **Bolivia: Forest, Water, and Biodiversity Resources Managed for Sustainable Economic Growth**

FY 2002 Obligation: \$5.2 million

Bolivia contains 53 million hectares of forest, more than Central America and Mexico combined. USAID is active in the forestry sector in Bolivia. The Agency's Sustainable Forestry Program was largely responsible for enactment of a 1996 Forestry Law that "democratized" access rights to forest resources. As a result of the law, by the end of 2002, 16 local community groups were officially presented with forest concessions with an additional 25 community groups approved by the Forestry Superintendence to participate in management of local forests. The combined area of forest under community management totaled 916,067 hectares. In addition, the program provides technical support to ten indigenous communities with the total forest under indigenous groups' management equaling approximately 700,000 hectares.

In FY 2002, with USAID support, 5.97 million hectares in national parks and reserves were managed under approved plans. Achievement of adequate management in these regions implies that immediate conservation threats have been deterred, long-term management plans have been developed, NGOs have been strengthened, and long-term financing and supportive local constituency have been developed. Also in 2002, the Department of Cochabamba government created the 640,000-hectare Altamachi-Cotacajes Protected Area. This area is spectacularly diverse, largely uninhabited, and benefits from strong support from local communities.

USAID also funds the Wildlife Conservation Society and the Izoceño indigenous community's dry forest ecosystems management activity in eastern Bolivia. The Izoceños manage Bolivia's largest protected area, the 3.5 million-hectare Kaa Iya National Park. The Government of Bolivia granted title to 300,000 hectares of the Izoceños indigenous territory in July of 2003. WCS's work with the Tacana indigenous group, contiguous to Madidi National Park, one of the world's biodiversity hotspots, resulted in the granting of title to the Tacana for 325,000 hectares of territory. This land grant represents the first time the Government has favored an indigenous land claim over other actors that were seeking land. The Izoceños also reached an agreement with a gas company to address the environmental impact of gas extraction.

Implementing partners include: WWF, TNC, CI, WCS.



*The Hyacinth macaw, like many other bird species living in the Amazon, is threatened by extensive deforestation.*

M. Derfuss, Conservation International

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## **Brazil: Environmentally Sustainable Land Use Program**

FY 2002 Obligation: \$2.25 million

The Amazon is the largest expanse of tropical forest in the world, stretching across nine countries and encompassing a region larger than Western Europe. With about 50,000 different species, the Amazon rain forest contains the most varied plant life on Earth. This is closely followed by richness and diversity of the Atlantic Forests ecoregion, extending along the coast of Brazil into Argentina and Paraguay. However, deforestation in the Amazon is becoming an issue of global concern. Brazil is considered a major contributor to global greenhouse gas emissions because of extensive deforestation and burning in the Amazon as well as the adjacent savannah grasslands.

USAID's environment program focuses on both biodiversity conservation and climate change, seeking a viable solution to achieve sustainable management of natural resources and effective conservation in the Amazon, the Atlantic Coastal forest, the Pantanal wetlands, and the Cerrado savannah.

Activities include improving the management of forest lands and protected areas, promoting the sustainable use of forested lands, and increasing the productivity of degraded lands near forests. USAID implements activities with long-term solutions, such as training and capacity building in land-use management, and strengthening the capacity of local individuals and institutions.

The Agency and the U.S. Forest Service support demonstrations of and training on reduced impact logging practices. This assistance helps promote industry adoption of forest management practices that will improve the profitability of sustainable natural forest management in the Amazon and reduce the incentives for conversion of the Amazon to other uses. In addition, Conservation International's Cerrado/Pantanal corridor program, funded primarily through the Global Conservation Program with Mission support, is strengthening the protected area network and influencing farmers to set aside portions of their holdings for conservation, plant native vegetation, and restore soil in degraded areas. Incentives are being created for more landowners to join the corridor's sustainable economic activities, such as organic beef and honey production in this highly biodiverse tropical savannah region.

## **Dominican Republic: Environmental Policy Formulation**

FY 2002 Obligation: \$0.175 million

The Dominican Republic comprises two-thirds of the island La Española (the other third belonging to Haiti) and six small islands. A characteristic feature of the country is its elevation - a large part of the country is more than 1,000 m, and the highest mountains in the Caribbean are located on the island. This topographical variation results in a range of ecosystems that promotes a high degree of biodiversity and endemism. About 36 percent of the floral species found on the island of La Española are endemic. Unfortunately, unsustainable logging, uncontrolled fires, slash-and-burn agriculture, expansion of sun-grown coffee fields, and hillside farming are causing soil erosion and significant species loss.

USAID's Environmental Policy Formulation project, implemented by International Resources Group, is working to improve policies, and build capacity to support biodiversity conservation in the Dominican Republic. In FY 2002, the Mission began a program to support the institutional strengthening of the Dominican Republic's newly created Secretariat of the Environment. As part of this program, the Mission has collaborated with the Sub-

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Secretariat of Protected Areas and Biodiversity to seek input from multiple stakeholders including private entrepreneurs, NGOs, universities, and public servants, in an effort to formulate an effective biodiversity conservation policy. The collaboration resulted in the drafting of a law that is expected to pass legislature. The Mission has supported training for protected area managers and rangers and helped design a management plan for the Bermudez National Park. It is foreseen that the plan will be replicated in other National Parks.

### **Ecuador: Biodiversity Conserved in Selected Protected Areas and Their Buffer Zones**

FY 2002 Obligation: \$7.375 million (DA and ESF funds)

Ecuador's forests contain 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.

The USAID program in Ecuador has brought more than 2.2 million hectares of national parks under improved management and leveraged \$8 million in financing for local partners from outside sources. Agency-funded organizations broke new ground in 2000 with the development of environmentally sound guidelines for farm-forest management. These guidelines are helping to conserve biological diversity in privately held forestlands adjacent to the Choco biodiversity hotspot. The Agency also helped build a strong coalition of local and regional conservation groups dedicated to sound resource management. The Community Forestry Network had its first timber sales, following approved environmental guidelines for harvesting and treatment.

In the Condor Bioreserve region, field research data were used to define adequate habitat size for the endangered Andean spectacled bear. This information is being used to inform decisions on regional planning, such as a road and water system development.

With USAID funding, TNC's efforts also promoted conflict resolution and helped long-settled indigenous communities achieve legal recognition in the Bioreserve. USAID Ecuador worked with 61 indigenous, Afro-Ecuadorian, and other communities to support improved management practices, and more than 2.2 million hectares are now under participatory management.

In addition to these activities, the Agency's regional PiP program consolidated Podocarpus National Park and encouraged local decision makers to form a park management committee to protect the Park's forest cover. The program also developed a long-term financial plan and user fees for Machalilla National Park, important steps toward financial sustainability. USAID funding also supports biodiversity conservation in the Galapagos Marine Reserve, in partnership with the Charles Darwin Foundation and the Galapagos National Park. Activities include zoning of the Marine Reserve, wetland restoration, establishment of catch limits and a fishing calendar, support for alternative income-generating activities to relieve pressure on the Marine Reserve, as well as environmental impact and ecotourism assessments. In FY 2002, an additional \$2 million ESF funding was obligated with the U.S. Department of Interior to strengthen monitoring and enforcement capabilities in the Galapagos Marine Reserve. These funds were used to provide for vehicles, communication systems, equipment for maintenance and repair, installations of the necessary equipment, and training on operation and maintenance.

Implementing partners include: CARE, WCS, TNC, and Jatun Sacha, a local NGO.

## Guatemala: Improved Natural Resources Management and Conservation of Biodiversity Program

FY 2002 Obligation: \$3.68 million

Guatemala's ecosystems are small in area but exceptionally diverse because of Guatemala's unique location in Mesoamerica and its altitudinal variation. USAID's environmental program supports Guatemalan efforts to increase the number of people employing sustainable agricultural practices and income generation options in the Maya Biosphere Reserve, the Sierra de las Minas Biosphere Reserve, two Ramsar wetlands, and the Atitlan Volcanoes Bioregion. USAID assists the Guatemalan Government to develop laws and policies that offer greater incentives for sustainable land use and conservation of biodiversity and to strengthen institutions responsible for natural resources use and conservation of biodiversity, including parks management. USAID helped the Government of Guatemala design a strategy to combat forest fires and prepare legal and technical analyses, leading to the creation of the new Ministry of the Environment. The fire prevention and control strategy prepared for the Peten region lead to the development of a national fire strategy. During the past year, USAID has provided the Guatemalan Government with direct support to address the Hydrilla invasion of Lake Izabal, as well as other emerging environmental issues of national importance.

Community-based forest management activities have been implemented on 392,056 hectares, generating \$3 million in revenue benefiting 25,000 people. Guatemala now ranks among the world's leaders, with 326,577 hectares of community-based forest being "green seal" certified (making Guatemala the country with the largest area of certified community forest concessions in the world), and 69 percent of the timber production exported to international markets. USAID is working closely with partners to develop alliances with the forest industry and set up a water fund for the Sierra de las Minas Biosphere Reserve in collaboration with private sector partners.

## Honduras: Improved Management of Watersheds, Forests, and Protected Areas

FY 2002 Obligation: \$0.5 million

Poor management of protected areas and watersheds in Honduras contributed to the high level of damage and destruction caused by Hurricane Mitch in 1998. USAID/Honduras' environment activities have focused on the sustainable management of watersheds, forests, and protected areas. The Mission's support of conservation has resulted in 28 protected areas brought under improved management, covering an area of more than 258,000 hectares under conservation. Positive impacts in protected areas under improved management include increases in the number of visitors to parks and reserves, increases in wildlife populations, improved water quality, and reduction in forest fires. Forestry activities of the National Forestry Science School have resulted in improved watershed management in 32 municipal Governments and 90 communities.

## Jamaica: Improved Quality of Key Natural Resources

FY 2002 Obligation: \$1.6 million

Like many small island nations, Jamaica is acutely affected by watershed degradation. The short run of many rivers, typically less than 100 kilometers, make it difficult for natural processes to dissolve contaminants or settle



Jesse Buff

*Community members display local flora as they survey the forest, part of a watershed and forest management effort in Honduras.*

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out sediments. Rivers, beaches and the near shore marine environment are been polluted and the coral reef ecosystems badly degraded. This situation has been aptly characterized as the “Ridge to Reef” phenomenon as there is a growing recognition of the fact that what happens in the uplands is an important challenge to sustainable management of coastal areas. This “ridge to reef” habitat degradation threatens the nation’s biodiversity as well as its “sun, sand, and surf”-based tourism.

The Jamaica Program’s biodiversity activities target these habitat-destructive activities through two projects. The Ridge to Reef Integrated Watershed Management Activity focuses on upland watershed conservation, introducing sustainable agricultural practices, reforestation, and public education and awareness. The Coastal Water Quality Improvement Project addresses issues of water quality and their effect on marine parks and coral reef ecosystems. The program also facilitated an Ocean and Coastal Zone Management Policy for Jamaica and capacity building support for NGOs, including the Negril Coral Reef Preservation Society and the managers of the Ocho Rios Marine Park (Friends of the Sea).

Implementing partners include: Host Country Government’s National Environment and Planning Agency, Department of Forestry, Ministries of Water, Agriculture, Tourism and Land/Environment, and NGOs including the Negril Environmental Protection Trust, Friends of the Sea, and the Montego Bay Marine Park Trust.

### **Nicaragua: Natural Resources Management Program**

FY 2002 Obligation: \$0.862 million

Part of the Mesoamerican biological corridor, Nicaragua contains tropical forest species, and marine and fresh water aquatic resources. USAID’s Co-management of Protected Areas in Nicaragua program works to strengthen local NGOs management of selected priority protected areas in coordination with Nicaragua’s Environment and Natural Resources Ministry. The program protects important ecosystems by strengthening the management of eight protected areas and the country’s National System for Protected Areas. It involves local communities in managing protected areas through innovative co-management agreements between the Ministry and local NGOs. Seven of these co-management agreements were signed by the end of 2002.

The program provides NGOs with financing for basic development and co-management of these protected areas, executing environmental education and institutional strengthening programs, improving and/or installing adequate infrastructure (visitor’s center/guard house), and developing sustainable economic activities in communities residing in and around the protected areas. One of the main activities promoted with project support is ecotourism. ARD is implementing this project.

### **Panama: Sustainable Management of the Canal Watershed and Buffer Areas**

FY 2002 Obligation: \$4.5 million

USAID/Panama emphasizes an integrated approach to watershed management. The program focus is on developing Panamanian institutional and civic capacity to protect and conserve natural resources in the Panama Canal Watershed (PCW) and buffer areas. Strategic alliances integrate the efforts and interests of central government ministries with those of local governments, the private sector, civil society, and resident communities.

Critical environmental issues in the watershed are being addressed through environmentally sound practices, development of sustainable environmentally friendly economic activities, such as ecotourism in selected parks

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and protected areas in this region, improved management of natural resources, and related activities that enhance biodiversity and water quality conservation.

The consolidation of the protected areas in the PCW is key to ensuring its overall health and the biodiversity of the area. USAID/Panama is providing assistance to the National Environmental Authority as well as to international and local NGOs to upgrade park management in the PCW. These activities include demarcation of newly designated protected areas within the watershed to be incorporated into the National System of Protected Areas and to prevent land use changes that are incompatible with the conservation efforts needed to preserve biodiversity and water quantity and quality in the PCW.

### **Paraguay: Sustainable Management of Globally Important Ecoregions Improved**

FY 2002 Obligation: \$1.0 million

Paraguay has one of the highest rates of deforestation in the world. The loss of 10 percent of its forest cover every year threatens the future of unique regional ecosystems. USAID is focusing on ecoregional conservation initiatives, such as stakeholder analyses, biodiversity and socioeconomic assessments, cross-border planning workshops, and an inter-governmental review of ecoregional conservation plans. The necessary policy, legal, and financial tools for effective ecoregional management are also under development. USAID initiatives to improve the sustainable management of the interior Atlantic rainforest, the Chaco dry forest, and the Pantanal wetlands are integrating and enhancing conservation efforts with Argentina, Bolivia, and Brazil with whom Paraguay shares these ecoregions. Activities have included strengthening the skills of Paraguayan organizations and local governments in sustainable development of these important ecoregions.

In 2002, USAID achieved significant advances in helping protect important forest areas. Two areas of the rainforest, comprising 102,000 hectares, were declared Resource Management Areas through a Presidential Decree. Prior to the decree, the protected areas had existed as “paper parks,” having never been demarcated. The new Resource Management Area concept allows land to remain in private hands, with its use regulated by zoning specifications. As a result of this change, private landowners are taking steps to protect their forests. In addition, a 5,000 hectare Ecological Reserve was created by presidential decree to protect a remnant forest in the Mbaracayu priority area, and a new buffer zone of 4,500 hectares bordering the reserve has been identified and demarcated for its protection. Local NGOs have leveraged USAID funds to purchase two additional areas of forest: 2,270 hectares of Interior Atlantic Forest and 4,000 hectares of dry forest in the Chaco eco-region. Furthermore, conservation easements have been identified for 16,500 hectares in two priority areas.



*Environmental education is an important part of USAID's work in Latin America.*

Significant accomplishments have occurred in the Chaco dry forest ecoregion. The status of land ownership was identified in an important corridor of 100,000 hectares linking national parks in Paraguay and Bolivia. The information is being used by national and international

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organizations to acquire public and private land, which is part of the Grand Chaco Biosphere Reserve that encompasses 4.7 million hectares in Bolivia and Paraguay.

Legal advances were made through the development of a new Municipal Code, which allows municipalities to set aside land for conservation purposes. Previously the law had considered forested lands to be idle lands subject to expropriation. The redefinition of forested lands in national legislation is an important achievement for the conservation community. This provides a strong legal rationale for new forms of private conservation, such as conservation easements (19 properties consisting of 21,630 hectares have been identified) and the leasing of land for conservation purposes. Other forms of conserving land, such as nature swaps, are also being developed as part the Mission's overall ecoregional focus. The Government of Paraguay is in the process of signing a 150-year concession to the Ache Indigenous Group who will develop a management plan to protect the reserve from logging and maintain the forests.

### **Peru: Improved Environmental Management in Targeted Sectors**

FY 2002 Obligation: \$1.45 million

Peruvian forests, which cover 60 percent of the country, contain up to one-third of South America's bird species and one-quarter of its mammal species, as well as an abundance of flora. USAID is working to improve environmental policies and promote private-sector participation in Peru. With USAID support, at least 18 of Peru's important natural protected areas have achieved management improvements, attributable to USAID's partnership with the Government of Peru's National Institute for Natural Resources (INRENA) during the past six years. 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, design plans for natural protected areas, and award scholarships for economic valuation of natural resources.

Sustainable forest management has become one of USAID/Peru's highest priorities in the last year. USAID has provided support to the Government of Peru's efforts to reform and modernize the forest sector. To date, 3.3 million hectares have been granted to forest concessionaires and at least 1.2 million are about to be awarded. Particularly noteworthy is a working relationship established with assistance from USAID Global Development Alliance among a U.S.-based export/import business and local wood industries. This creates greater synergy among producers, industry, and the marketplace and takes advantage of forest certification and the promotion of lesser known species. USAID has recently launched a major forestry project by the name of Peruvian Center for Forest Development (CEDEFOR by its abbreviation in Spanish) that is being implemented by WWF and will add resources to consolidate Peru's forest sector reform. The center is part of a collaborative effort between two USAID programs (environment and natural resources, and alternative development) known as the Joint Environmental Agenda that is implemented by TNC, IRG, the Field Museum of Chicago, and WWF in close coordination with INRENA and the national counter-narcotics agency.

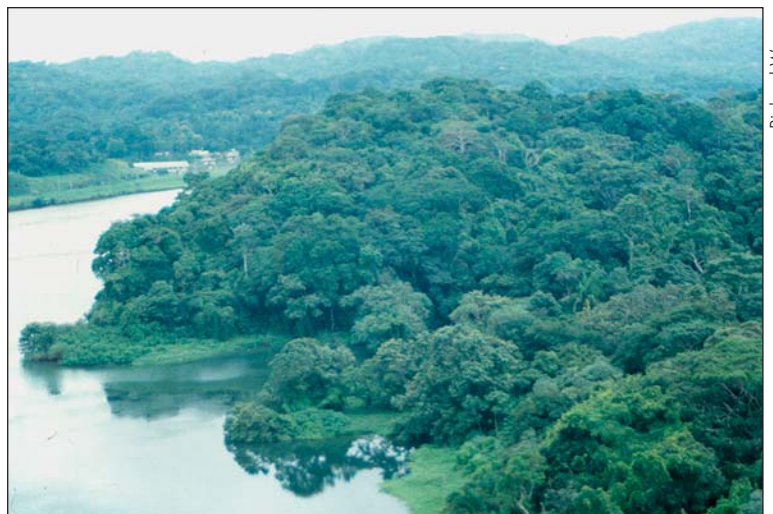
The Mission also supports two Parks in Peril sites: Pacaya-Samiria, in Loreto; and Central Selva, a compound of four protected areas located in the high jungle. Work on those sites will foster participatory management of natural resources and help generate income and job opportunities. These serve as incentives to create partnerships with local populations for more effective conservation of natural protected areas.

# THE TROPICAL FOREST CONSERVATION ACT

The Tropical Forest Conservation Act is a mechanism that creates funds and local foundations to provide grassroots level grants to protect tropical forests in low- and medium- income developing countries through creative debt relief agreements. Under the TFCA, enacted in 1998, eligible countries have a portion of their debt reduced through debt buyback, debt swap, or debt restructuring in exchange for creating foundations to support forest conservation efforts by local communities and NGOs. By investing in the protection of tropical forests, the TFCA contributes to the conservation of biodiversity in tropical forest habitats.

USAID is one member of an interagency group of eight Federal Agencies who, together with seven private sector representatives, oversee the TFCA. The program is led by the State Department, Treasury Department and USAID. In FY 2002, Congress appropriated funds to pay for the costs of debt treatments for TFCA to the Treasury Department. USAID supports TFCA in the design of country specific programs. Once agreements are signed, the U.S. government representation on the local TFCA board is handled by USAID. The Agency works collaboratively to create and monitor the new foundations. The placement of the TFCA Secretariat within USAID facilitates this oversight and technical assistance function.

As of the end of FY 2002, all available funds for TFCA from three successive years of appropriations (\$36 million) had been obligated for debt treatment agreements with Bangladesh, Belize, El Salvador, Peru, the Philippines, and Panama (completed in 2003). Over \$60 million in tropical forest conservation funds was created through these innovative debt treatments.



Richard Warner

*The Tropical Forest Conservation Act helps protect tropical forests, such as this forest along the Panama Canal.*



# ANNEX I: USAID'S BIODIVERSITY PROGRAMS AND ACTIVITY FUNDING

Program Name	Program Description	Biodiversity Spending in US\$	Type of Funding
<b>EGAT Funded Biodiversity Programs</b>			
NRM – Biodiversity Conservation	Biodiversity Conservation	6,535,000	DA
NRM – Forest Conservation	Sustainable Forest Management	1,395,625	DA
NRM – Water Resources Management	Coastal, Marine, and Freshwater Ecosystem Mgmt.	1,200,000	DA
NRM – Water Resources Management	Lake Basin Initiative	150,000	FSA
Agriculture – Israeli Programs	Middle Eastern Reg. Cooperation – Biodiv Prgms	1,166,615	ESF
Agriculture – University Research	Global Livestock Collaborative Research Support Prog.	647,000	DA
	<b>Total</b>	<b>\$11,094,240</b>	
<b>Africa Region</b>			
Africa Regional – AFR/SD	Forest Service Interagency Agreement	625,000	DA
Africa Regional – RCSA	Southern African Region	1,436,000	DA
Africa Regional – REDSO/ESA	East and Central African Region	200,000	DA
Central Africa Reg. Prog. for the Env. Congo Basin Regional	Congressional Directive	3,000,000	DA
Central Africa	Mountain Gorilla Habitat Conservation	1,500,000	DA
Democratic Republic of Congo	Conservation of Biodiversity and Habitat	665,000	DA
Ghana	Economic Growth – Ecotourism and Agroforestry	1,690,000	DA
Guinea	Forest Co-Management Program	2,000,000	DA
Kenya	Improved Nat. Res. Mgmt. in Targeted Biodiversity Areas	2,220,000	DA
Madagascar	Biologically Diverse Ecosystems Conserved	8,450,000	DA
Malawi	Incr. Sustainable Use, Conservation & Mgmt. of Nat. Res.	1,607,841	DA
Namibia	Conservation of Habitats & Promotion of Nature Tourism	2,224,000	DA
Tanzania	Improved Conservation of Coastal Res. & Wildlife	3,071,000	DA
Uganda	Critical Ecosystems Conserved to Sustain Biodiv.	1,607,000	DA
Zambia	Community-Based Natural Resource Mgmt & Sust. Ag.	300,000	DA
	<b>Total</b>	<b>\$30,541,841</b>	
<b>Asia and the Near East Region</b>			
ANE Regional – Off. of Tech. Support	Program Design and Learning	700,000	DA
ANE Regional – Global Dev. Alliance	Papua/Bird's Head Regional Development	3,000,000	DA
East Asia Regional SO24	East Asia & Pacific Environment Initiative	7,000,000	ESF
Egypt	Egyptian Environmental Policy Program	7,686,000	ESF
Bangladesh	Improved Mgmt of Waters and Forests	900,000	DA
Indonesia	Strengthened & Decentralized NRM	12,000,000	DA
Nepal	Strengthened Governance of Nat. Res. & Selec. Inst.	800,000	DA
Philippines	Environmental Management Improved	4,100,000	DA
	<b>Total</b>	<b>\$36,186,000</b>	

<b>Program Name</b>	<b>Program Description</b>	<b>Biodiversity Spending in US\$</b>	<b>Type of Funding</b>
<b>Europe and Eurasia Region</b>			
Bulgaria	Biodiversity Conservation & Economic Growth	370,000	AEEB
Croatia	Citizen Participation and Improved Governance	300,000	AEEB
Russia	FOREST and Replication of Lessons Learned projects	680,000	FSA
	<b>Total</b>	<b>\$1,350,000</b>	
<b>Latin America and the Caribbean Region</b>			
Caribbean Regional Program	Improved Envir. Mgmt. of Public and Private Entities	2,500,000	ESF
Central American Reg. Env. Program	PROARCA – Strengthening of PA System & Env. Policy	4,915,000	DA
LAC Regional	Parks in Peril; Conservation of Region's Biological Res.	7,304,152	DA
LAC Strategy and Planning Office	Alliance Activities	300,000	DA
Bolivia	Forest, Water, & Biodiversity Resource Mgmt.	5,200,000	DA
Brazil	Environmentally Sustainable Land Use	2,250,000	DA
Dominican Republic	Environmental Policy Formulation	175,000	DA
Ecuador	Biodiversity Cons. in PAs & their Buffer Zones	5,375,000	DA
Ecuador	Biodiversity Cons. in Galapagos Marine Reserve	2,000,000	ESF
Guatemala	Improved Nat. Res. Mgmt. & Cons. of Biodiversity	3,680,000	DA
Honduras	Forestry Development & Environmental Protection	500,000	DA
Jamaica	Improved Quality of Key Natural Resources	1,600,000	DA
Mexico	Critical Ecosystems & Biological Resources Conserved	3,013,000	DA
Nicaragua	Natural Resources Management	862,000	DA
Panama	Sustainable Management of Canal Areas	4,500,000	DA
Paraguay	Sustainable Mgmt. of Globally Important Ecoregions	1,000,000	DA
Peru	Improved Environmental Mgmt. of Targeted Sectors	1,450,000	DA
	<b>Total</b>	<b>\$46,624,152</b>	
<b>Total Biodiversity Obligation in FY 2002</b>		<b>\$125,796,233</b>	
<b>Biodiversity Obligation in FY 2002 (DA Funds only)</b>		<b>\$103,943,618</b>	

## ANNEX II: SECTION 119 OF THE FOREIGN ASSISTANCE ACT

Sec. 119. \75\ Endangered Species. –

(a) The Congress finds the survival of many animal and plant species is endangered by overhunting, by the presence of toxic chemicals in water, air and soil, and by the destruction of habitats. The Congress further finds that the extinction of animal and plant species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike. Accordingly, the preservation of animal and plant species through the regulation of the hunting and trade in endangered species, through limitations on the pollution of natural ecosystems, and through the protection of wildlife habitats should be an important objective of the United States development assistance.

\75\ 22 U.S.C. 2151q. Sec. 119, pars. (a) and (b) were added by sec. 702 of the International Environment Protection Act of 1983 (title VII of the Department of State Authorization Act, Fiscal Years 1984 and 1985, Public Law 98-164; 97 Stat. 1045).

(b) \75\ In order to preserve biological diversity, the President is authorized to furnish assistance under this part, notwithstanding section 660, \76\ to assist countries in protecting and maintaining wildlife habitats and in developing sound wildlife management and plant conservation programs. Special efforts should be made to establish and maintain wildlife sanctuaries, reserves, and parks; to enact and enforce anti-poaching measures; and to identify, study, and catalog animal and plant species, especially in tropical environments.

\76\ Section 533(d)(4)(A) of the Foreign Operations, Export Financing, and Related Programs Appropriations Act, 1990 (Public Law 101-167; 103 Stat. 1227), added “notwithstanding section 660” at this point.

(c) \77\ Funding Level. – For fiscal year 1987, not less than \$2,500,000 of the funds available to carry out this part (excluding funds made available to carry out section 104(c)(2), relating to the Child Survival Fund) shall be allocated for assistance pursuant to subsection (b) for activities which were not funded prior to fiscal year 1987. In addition, the Agency for International Development shall, to the fullest extent possible, continue and increase assistance pursuant to subsection (b) for activities for which assistance was provided in fiscal years prior to fiscal year 1987.

\77\ Pars. (c) through (h) were added by sec. 302 of Public Law 99- 529 (100 Stat. 3017).

(d) \77\ 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 conserve biological diversity, and
- (2) the extent to which the actions proposed for support by the Agency meet the needs thus identified.

(e) \77\ Local Involvement. – To the fullest extent possible, projects supported under this section shall include close consultation with and involvement of local people at all stages of design and implementation.

(f) \77\ PVOs and Other Nongovernmental Organizations. – Whenever feasible, the objectives of this section shall be accomplished through projects managed by appropriate private and voluntary organizations, or international, regional, or national nongovernmental organizations, which are active in the region or country where the project is located.

(g) \77\ Actions by AID. – The Administrator of the Agency for International Development shall—(1) cooperate with appropriate international organizations, both governmental and nongovernmental;

- (1) look to the World Conservation Strategy as an overall guide for actions to conserve biological diversity;
- (2) engage in dialogues and exchanges of information with recipient countries which stress the importance of conserving biological diversity for the long-term economic benefit of those countries and which identify and focus on policies of those countries which directly or indirectly contribute to loss of biological diversity;
- (3) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity;
- (4) whenever possible, enter into long-term agreements in which the recipient country agrees to protect ecosystems or other wildlife habitats recommended for protection by relevant governmental or nongovernmental organizations or as a result of activities undertaken pursuant to paragraph
- (5), and the United States agrees to provide, subject to obtaining the necessary appropriations, additional assistance necessary for the establishment and maintenance of such protected areas;
- (6) support, as necessary and in cooperation with the appropriate governmental and nongovernmental organizations, efforts to identify and survey ecosystems in recipient countries worthy of protection;
- (7) cooperate with and support the relevant efforts of other agencies of the United States Government, including the United States Fish and Wildlife Service, the National Park Service, the Forest Service, and the Peace Corps;
- (8) review the Agency’s environmental regulations and revise them as necessary to ensure that ongoing and proposed actions by the Agency do not inadvertently endanger wildlife species or their critical habitats, harm protected areas, or have other adverse impacts on biological diversity (and shall report to the Congress within a year after the date of enactment of this paragraph on the actions taken pursuant to this paragraph);
- (9) ensure that environmental profiles sponsored by the Agency include information needed for conservation of biological diversity; and
- (10) deny any direct or indirect assistance under this chapter [of the Foreign Assistance Act] for actions which significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas.

(h) \77\ Annual Reports. – Each annual report required by section 634(a) of this Act shall include, in a separate volume, a report on the implementation of this section.

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