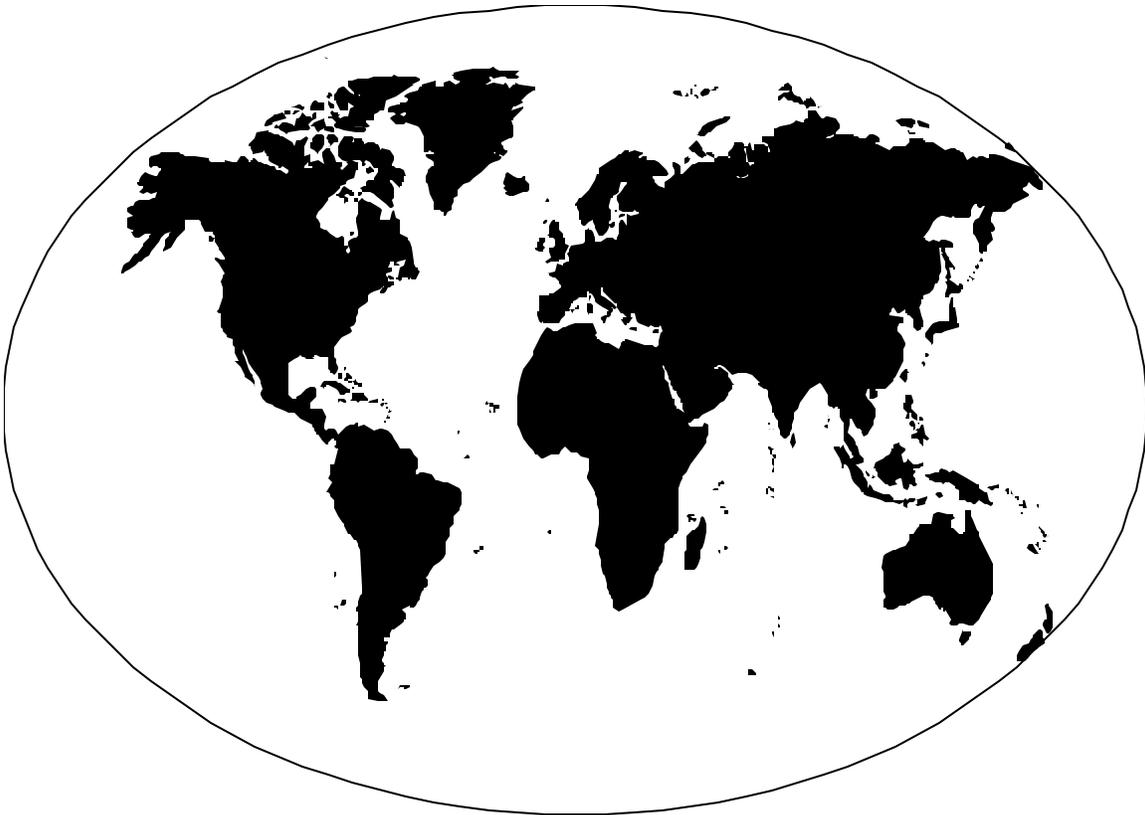


U. S. Department of the Interior
International Technical Assistance Program



Quarterly Report
July 1, 2005 through September 30, 2005

Prepared By: Barbara Pitkin, COTR
U.S. Department of the Interior

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**U.S. Department of the Interior
International Technical Assistance Program
Reporting Period: July 1, 2005 – September 30, 2005**

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Office of International Affairs, U.S. Department of the Interior
1849 C Street, NW, MS 4426, Washington, DC 20240 U.S.A.
Fax: 202-501-6381
Web Site: <http://www.doi.gov/intl/itap>

<u>Staff</u>	<u>Email</u>	<u>Telephone</u>
Barbara Pitkin, Program Manager	bpitkin@ios.doi.gov	202-208-5221
Cynthia Perera, Project Manager	cperera@ios.doi.gov	202-219-0537
Velma Morgan, Program Assistant	velma_l_morgan@ios.doi.gov	202-219-0187

International Technical Assistance

The U.S. Department of the Interior (DOI) is the nation's principal conservation agency, responsible for the management and protection of its most precious natural, cultural, and historical resources. Established more than 150 years ago, DOI currently has more than 70,000 employees and manages more than 450 million acres of US lands.

AREAS OF EXPERTISE: With donor funds, DOI can provide training and technical assistance to countries in areas of DOI staff expertise, such as:

Protected area management
Cultural resources management
Environmental education
Endangered species conservation
Visitor services
Recreation management
Fire management
Control of invasive species

Minerals management
Reclamation of abandoned mine lands
Ecotourism
Wildlife law enforcement
Resource interpretation
Park infrastructure
Concessions management
Community outreach

DOI BUREAUS: Expertise is drawn from the various DOI bureaus. The bureaus are listed below with a brief description of their responsibilities:

National Park Service: Manages more than 384 sites, including prime natural parks, historic and cultural areas, monuments, battlefields, seashores and lakeshores, and recreation areas. This bureau accommodates and educates more than 275 million visitors per year.

U.S. Fish and Wildlife Service: Responsible for the protection and conservation of fish, wildlife, and plants. Manages more than 700 field units, including national wildlife refuges, national fish hatcheries, law enforcement and ecological services field stations. Regulatory authority responsible for the international trade of plants and animals and the protection of U.S. endangered species.

Bureau of Land Management: Manages more than 270 million acres of public lands for such diverse uses as energy, minerals, and timber extraction, livestock forage, fish and wildlife habitat, and scenic and recreational uses.

Office of Surface Mining, Reclamation and Enforcement: Responsible for protecting people and the environment during coal mining and restoration, and for restoring mines abandoned before 1977.

U.S. Geological Survey: Responsible for scientific research and applications related to earth processes; natural disasters; and water, biological, energy, and mineral resources.

Bureau of Indian Affairs: For American Indians, Indian tribes and Alaska Natives, provides social services, promotes economic opportunity, and protects and improves trust assets.

Bureau of Reclamation: Manages 58 hydroelectric power plants and is the country's largest wholesale supplier of water.

Minerals Management Service: Manages mineral resources on the outer continental shelf of the U.S. in an environmentally sound and safe manner. Provides fiscal accounting and management of the mineral resources both onshore and offshore.

DOI UNIQUE STRENGTHS: The unique strengths of DOI technical assistance include:

DOI offers technical experts with a depth of applied technical knowledge, international experience, and relevant language skills.

DOI fosters direct, sustained exchanges between U.S. natural resource managers and their host-country counterparts. These are often direct government-to-government partnerships through which DOI can provide the insight and assistance of which only governing agencies are capable (e.g., the issuance of regulations, law enforcement, jurisdiction considerations).

All salaries for DOI short-term technical assistance are covered by the U.S. Department of the Interior. In fact, DOI contributions generally match donor funds at a 2:1 ratio.

With a large internal training staff, DOI can train the trainers to ensure long-term program sustainability.

DOI technical assistance is offered on a reimbursable basis. Donor funds cover the costs of travel and per diem of DOI technical staff, support for field activities, equipment, and program management, coordination, and support. DOI covers the salaries of the technical experts on short-term assignments.

Following are descriptions of the progress achieved in the Department of the Interior's current initiatives. New material is indicated in *bold italics*.

CAMBODIA

Wildlife Law Enforcement

SUMMARY OF ASSISTANCE

Cambodia is surrounded by several countries that, having hunted their own wildlife to extinction, have turned to Cambodia as a source of skins, bones, internal organs, and other wildlife products. The wildlife crimes perpetrated or abetted by traffickers in these countries have been well documented. Decisive and urgent action is necessary to protect Cambodia's remaining wildlife in the country's long-term economic, social, and environmental interests.

Tough enforcement measures alone may not be feasible due to lack of infrastructure and manpower and may even backfire. Commercial dealers and professional hunters are often responsible for encouraging poor villagers to poach. Currently, law enforcement officials find it difficult to reach the instigators and often end up arresting villagers who hunt for subsistence. Development assistance can provide villagers with economic alternatives, but it will not discourage opportunistic poaching. A combination of law enforcement and community participation is therefore required.

DOI is working in collaboration with Conservation International (CI) and WildAid to provide training for park rangers and protected area managers in areas of DOI expertise, and providing technical assistance to the CITES Secretariat in Phnom Penh.

FUNDING

EAPEI in FY '02

RESULTS TO DATE

A DOI expert participated in a review team to assess the current state of data and information on the status and condition of Cambodia's forest resources. The DOI expert helped develop guidance and methods for the assessment of the current distribution, status, and value of Cambodia's forests and forest lands (July 2003).

A team of two U.S. Fish and Wildlife Service (FWS) experts on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) traveled to Cambodia to: (1) provide training to Government of Cambodia officials on the implementation of CITES, including appropriate permitting procedures to authorize the international trade in CITES-listed species; and (2) provide assistance in finalizing Government of Cambodia draft legislation for the implementation of CITES (June 2004).

DOI has completed a contract with WWF/TRAFFIC to procure needed equipment for the CITES Secretariat.

One FWS CITES expert returned to Cambodia to participate in a Government of Cambodia-sponsored review and debate on the draft CITES legislation (July 2004).

The first phase of equipment procurement for the CITES Secretariat has been completed. Among other things, the office now has a functioning phone, fax and email account.

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Equipment procurement will continue for the CITES Secretariat.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in Cambodia are available upon request.

CAPE VERDE

Groundwater Monitoring Network

SUMMARY OF ASSISTANCE

Approximately 80 percent of the rainfall on the Cape Verde Islands is estimated to be lost to evaporation and runoff to the sea. If a portion of the “lost” rainfall can be stored as recharge to the groundwater system, a more sustainable water supply can be provided to support increased agricultural productivity. Community-based water management plans and the construction of various structures to help retain surface water runoff, will contribute to a sustainable water supply to support agriculture on the islands.

In order to establish effective monitoring of the water-retention schemes in providing sustainable recharge to the groundwater system, a network is needed. Such a network includes wells, rain gages, and spring measurements. Monitoring of the water table with a network of existing wells, as well as monitoring spring discharge, will provide a measure of the success of the water retention and recharge schemes. It is desirable to have the monitoring done at a local level, so that the communities can “take ownership” of the program and will carry or adopt responsibility for the success of the program. Experience in designing and maintaining a monitoring network is lacking at the community level; therefore training and equipment must be provided.

Specifically, DOI’s U.S. Geological Survey (USGS) will:

- Provide training, equipment, and manuals to Cape Verdean counterparts, who will operate the ground-water monitoring network;
- Working with Cape Verdean counterparts, inventory existing wells and springs, and assess their suitability for use in a ground-water monitoring network, in six watersheds on three islands;
- Assist in the design of a ground-water monitoring network (including determining frequency of measurements); and
- Establish baseline conditions of the ground-water system prior to construction of the water-retention schemes.

FUNDING

Millennium Challenge Corporation in FY ‘05

RESULTS TO DATE

The project was initiated in July 2005. Equipment and software needed for the planned USGS mission were purchased.

A USGS mission was made to Cape Verde Islands July 29 – August 23, 2005. The objectives of the mission were to (1) provide training on ground-water monitoring and use of monitoring equipment, (2) begin establishing ground-water monitoring networks in each of three watersheds, and (3) begin an inventory of wells and springs in each watershed.

On each of the islands visited, training consisted of a mix of classroom lectures and field demonstrations. The topics discussed or demonstrated included:

- *Overview of USGS (classroom)*
- *Basic concepts in conducting a ground-water study (classroom)*
- *Ground-water level monitoring (classroom/field)*
- *Hand-held GPS use (field)*
- *Water-level measurements using steel tape, electric tape, and pressure transducer (classroom/field)*
- *Water quality sampling techniques (field)*
- *Age dating and recharge evaluation (classroom/field)*
- *Spring-discharge measurements (field)*

The team spent time on each island meeting with local water users and managers, collecting water quality information (field parameters and samples for age-dating and isotopes), and searching for potential control basins.

SIGNIFICANT PROBLEMS OR DELAYS

When the USGS team arrived, it was apparent that actual field conditions required a change in the mission objectives and approach. Few, if any, observation wells exist in each basin, and depths to water are greater than the team had planned for. A modified approach, focusing on training as well as learning about the three ground-water flow systems in each watershed, was taken. Because of difficulties with the logistics of inter-island travel, the amount of time spent in the Mosteiros watershed was less than originally anticipated.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

A second mission is planned for Fall 2005.

A progress report summarizing all data and findings is planned for January 2006. It is anticipated that the report will contain information on the monitoring network training, network installation, ground-water inventory, and data collection during the two USGS missions. The report also will likely include maps showing well locations and tables of data collected during the USGS missions. The content of the report will be reevaluated with input from MCC depending on the objectives of the second mission of the USGS to Cape Verde.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in Cape Verde will be available upon request.

CENTRAL AMERICA

Sustainable Tourism at Mayan Archeological Sites

SUMMARY OF ASSISTANCE

The Mundo Maya (i.e., “Mayan World”) region, encompasses approximately 500,000 square kilometers in

- Honduras
- El Salvador
- Guatemala
- Belize, and
- Mexico (southern)

and connects these countries through their shared common Mayan heritage. This area, containing magnificent archaeological sites and large swaths of intact tropical forests, is facing development pressures from the more than five million Mayan descendants and others who currently reside there. Other ecological and cultural pressures include poaching of both archeological artifacts and natural resources, and the growing numbers of tourists.

In 1993, the Tourism Ministries of each of these five countries created the Mundo Maya Organization (MMO) in an effort to develop a coordinated regional strategy to promote sustainable tourism at the Mayan archeological sites. The goal of the MMO, using both internal and external funding (e.g., from the InterAmerican Development Bank [IDB]), is to contribute to the sustainable economic and social development of the Mayan region through the establishment of regional circuits that offer cultural, ecological and adventure tourism.

DOI-ITAP has signed a 5-year Memorandum of Understanding (MOU) with the MMO to provide technical assistance and training to any of the MMO countries. DOI-ITAP has provided technical assistance to 12 selected Mayan sites in the areas of: protection and maintenance of the natural and cultural resources; visitor infrastructure, services, and education; capacity-building; and community participation. The DOI-ITAP staff is working closely with in-country archeologists, park managers, engineers, economists, and the local communities.

FUNDING

InterAmerican Development Bank in FY ‘05

InterAmerican Development Bank in FY ‘03

InterAmerican Development Bank in FY ‘02

RESULTS TO DATE

Draft a Management Plan for Río Amarillo, Honduras

Honduras: Following the DOI-ITAP recommendations from a 2002 Assessment Trip (see below), the Government of Honduras (the Tourism and Archeological Ministries) decided to contract DOI-ITAP to develop a Management Plan for the Río Amarillo Archeological Park in western Honduras. Currently, there is no active protection or presence at this park. At the

direction of the Government of Honduras, DOI-ITAP designed the Plan to (1) foster the investigation, restoration and protection of the Mayan cultural resources; (2) offer the visitors an experience that complements that offered by the nearby and world-renowned Copan Archeological Park; and (3) create employment opportunities for the residents of the nearby towns of La Castellona and other local communities. The Plan is currently in its final draft form being reviewed by the Government of Honduras and is expected to be finalized in the next quarter (Sept 2005).

Park Planning and Management Technical Assistance

Guatemala: A team consisting of three DOI staff (architect, planner, and educator) provided technical assistance to park staff at the Tikal and Yaxhá-Nakum-Naranjo sites in Guatemala in the topics of park planning, visitor services, interpretation and education, and local community outreach (July 2002).

Honduras: A team consisting of three DOI staff (planner, educator, and park manager) provided technical assistance to park staff at the Copan and Rio Amarillo sites in Honduras in the topics of park planning, visitor services, interpretation and education, and local community outreach (June 2002).

Park Infrastructure Evaluation and Planning

Guatemala: A DOI team (one architect and one landscape architect) evaluated and provided recommendations on the sitting and design for a visitor center and other necessary structures (e.g., administrative offices and staff dormitory) for the Yaxhá-Nakum-Naranjo Natural Monument. The IDB was funding this construction project through its Sustainable Development of the Petén Program, and wanted to ensure the most effective use of its funds. Based on the DOI recommendations, and with the support of on-site stakeholders, the visitor center was relocated to a more appropriate site and the design was altered to allow for improved visitor flow, safety, and an incorporation of sustainable design principles (i.e., principles of conservation including using energy, water, and other resources more efficiently) (Jan 2003).

Success Story

When an IDB program manager informally met with a DOI team in Guatemala, he was so impressed by the DOI's team recommendations that he immediately halted an ongoing visitor center construction project and hired DOI to improve the design and utility of the visitor center. Work on the center has since resumed, following the DOI recommendations.

El Salvador: A team of DOI staff conducted a comprehensive infrastructure evaluation of the natural park complex called "Complejo Los Volcanes" which consists of three relatively small protected area subunits located within a complex of volcanoes. The team provided recommendations that will increase park visitor enjoyment and education, including improvements to park interpretation/education services and visitor buildings (Sept 2002).

DOI Assessment Trip/Planning

DOI provided the MMO and IDB with a comprehensive report detailing DOI's findings and recommendations for follow-up for each of the 12 MMO sites. These recommendations include descriptions of work that can be completed by DOI, including estimated costs (Sept 2002).

DOI completed an initial assessment trip to all of the MMO-selected sites and provided recommendations for technical assistance and training that DOI can provide through December 2002 (Feb 2002).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

None - Activities are completed as requested by the IDB or MMO.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance on the Mundo Maya project are available upon request.

CENTRAL AMERICA Regional Fire Program

SUMMARY OF ASSISTANCE

At the request of the U.S. Agency for International Development/Guatemala – Central American Programs (US AID/G-CAP), DOI-ITAP is providing technical assistance focused on fire management and forest pest control throughout Mesoamerica.

This Program is to involve and benefit the following eight (8) countries:

- Panama
- Costa Rica
- Nicaragua
- El Salvador
- Honduras
- Guatemala
- Belize
- Mexico

The points of contact for these countries are each country's Forest and Pest Committee members under the Commission on Central American Environment and Development (CCAD), an organization consisting of the Ministries of the Environment for each of these countries. Due to Mexico's extensive experience and capabilities with forest fires and forest pest management, DOI is working closely with its Mexican counterparts on increasing the coordination, prevention, and response capabilities of the other seven countries as well as within Mexico.

Under this program, DOI-ITAP is delivering its assistance through:

- Technical assistance, training, and workshops
- Small grants
- Economic valuation
- Training and outreach material

FUNDING

USAID/Central America Regional Programs (emergency funds provided for fire control and prevention operations during the 2005 fire season) in FY '05

USAID/Guatemala – Central America Regional Programs in FY '04

USAID/Guatemala – Central America Regional Programs in FY '04

RESULTS

Economic Valuation:

Regional Economic Valuation Training: ITAP sponsored a course entitled “Economic Valuation of Damage to Natural Resources Caused by Wildfires” as the first step in training key government staff to help sensitize the governments of Mexico and the seven Central American countries of the value of the products and services provided by ecosystems, and particularly those lost through wildfires. This course, held in Costa Rica, drew three representatives from each of the participating countries, and focused on a specific methodology that has been successfully used in Costa Rica to calculate costs for damage restoration, loss of services and products, and punitive fines. The course participants were tasked with applying this methodology to a case in each of their respective countries, with on the ground technical assistance offered by the course instructor (Nov 2004).

Economic Valuation Studies per Country: The government of each of the eight countries has committed to perform an “Economic Valuation Case Study” in their efforts to raise the profile of the economic value and benefits of natural resources.

Panama: Panama was the first to undertake this task, working on valuing the damages caused by wildfires to natural resources. Participants included Panamanian Environment Ministry (ANAM) staff, including fiscal and legal representatives. During this workshop, the economic valuation methodology introduced during the Costa Rica training in November 2004 (see above), which has been used successfully to recoup damages in Costa Rica, was applied to an actual case study in a protected area of Panama. This methodology was so well received and easy to apply that ANAM decided that it will apply it to future cases (Apr 2005).

Success Story

The Economic Valuation Study conducted in Panama was so successful that the Panamanian Environment Ministry has decided to set aside a portion of its budget for further training of additional staff and that the ANAM staff present at this workshop would serve as trainers for future courses in Panama, strengthening the existing Environmental Economic Unit within that Ministry.

Fire Detection and Information Management

Satellite Detection Workshop: Workshop in Nicaragua to standardize satellite detection technology and improve regional sharing of available data. Topics included the various systems currently in use, identifying the various informational and technological gaps, and the utility of the data generated through these technologies. Representatives from each country participated in addition to key staff from NASA, Mexico’s National Commission for Biodiversity Research and Application (CONABIO), the Society for Industrial and Applied Mathematics (SIAM), CCAD, and the University of Maryland (Mar 2005).

Geographic Information System (GIS) Course: Training course in Mexico for Central American and Mexico fire managers on basic aspects of interpreting satellite images for fire

detection and response. Topics included remote sensing principles, mapping, GIS, detecting hot spots, and how to download/access public satellite information to this end.

Representatives from NASA, CONABIO, and SIAM participated as instructors (Jan 2005).

Small Grants Program

Small Grants Recipients Selected and Funds Partially Disbursed: In consensus with USAID and fire management representatives from the governments of each Central American country and Mexico, DOI has selected the small grants recipients for all eight countries. A condition for these grants is that counterpart funds would be provided by the recipient's country government.

A brief summary of each project along with the selected grantees and counterpart agencies are provided in the following table.

DOI Regional Fire and Pest Management Small Grants Information		
Country & Project Summary	Grantee	Counterpart
<p>GUATEMALA</p> <p>(1) Forest Fire and Pest control in Sierra de las Minas Biosphere Reserve in the Rio Hondo and Gualan Municipios”</p> <p>(2) Forest fire prevention and control in Laguna del Tigre National Park in the San Andres Municipio</p>	<p>Defensores de la Naturaleza</p> <p>ProPetén</p>	<p>INAB & SIPECIF</p> <p>ProPetén & SIPECIF</p>
<p>BELIZE</p> <p>Forest fire and pest management in pine ecosystems in the Kaax Meen Noj and the Elijio Panti National Parks</p>	<p>Sociedad Itzamna</p>	
<p>EL SALVADOR</p> <p>Develop mechanism for forest fire & pest control and mgmt in the La Montañosa region</p>	<p>FUNPROCOOP</p>	<p>Forest Dept., Ministry of Agric</p>
<p>HONDURAS</p> <p>Forest fire & pest mgmt for the Villa Santa Agroforestry Cooperative in the town of Danlí.</p>	<p>Villa Santa Agroforestry Cooperative</p>	<p>COHDEFOR</p>
<p>NICARAGUA</p> <p>(1) Forest fire prevention and control plan for the San Francisco Municipio</p> <p>(2) Biological studies of tree bark strippers in the pine forests of the San Fernando Municipio</p>	<p>San Fernando Municipio in Nueva Segovia</p>	<p>INAFOR</p>
<p>COSTA RICA</p> <p>(1) Support fire fighting brigades in Arenal Tempisque Conservation Area in Guanacaste</p> <p>(2) Increase community participation in forest fire prevention in the Nicoya Peninsula</p>	<p>ASEACA</p> <p>ASEPALECO</p>	<p>MINAE</p> <p>MINAE</p>
<p>PANAMA</p> <p>Strengthening of management, prevention, and control of forest fires in the Soberania and Camino de Cruces National Parks</p>	<p>Kuna Nega Community</p>	<p>ANAM</p>

MEXICO Development of Community Fire Mgmt Plans in 3 critical zones of the Zoque Selva	Pronatura Chiapas	CONAFOR
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All Small Grants Selected and 70 percent of Funds Disbursed: With the exception of Belize and Mexico, the Small Grants projects were initiated in March 2005. Although coming in late with their proposals, Belize (May 2005) and Mexico (Sept 2005), these remaining two countries have had their proposals approved and funds disbursed. To date, approximately 70 percent of the funds have been disbursed and progress reports submitted (Sept 2005).

Small Grants Recipients Selected and Funds Disbursed for 7 of 8 Countries: In consensus with USAID and fire management representatives from the governments of each Central American country and Mexico, DOI has selected the small grants recipients for all countries with the exception of Mexico. Once selected, a partial disbursement was made to each to get initiate project implementation. A condition for these grants is that counterpart funds would be provided by the recipient's country government. The selected grantees and the counterpart agencies, in addition to a brief summary of each project is provided in the table below (Mar 2005).

Small Grants Projects Selected for 6 of 8 Countries: DOI met with key USAID representatives and staff from the governments of the Central American countries and Mexico to evaluate proposals and complete final selection of fire management grants projects. One or two projects were selected per country, with a budget of \$40,000 total per country, for efforts that would help improve the region's management and control of wildfires at the grass roots level (Oct 2004).

Forest Pests

Forest Pest Management Course: A training course was held in Costa Rica on the identification of general Mesoamerican forest pests and pest impacts. This course was to better prepare the governments to immediately respond and control the damage caused by forest pests to minimize damage to natural and plantation forests, in addition to conserve biodiversity. Topics of focus included the evaluation of actual case studies and the creation of a Regional network of technical and professional staff to increase cross-border communication of conditions and responses related to forests pests, in addition to sharing of new strategies, technologies, etc (Sept 2005).

Pine Bark Beetle Training Course: A training course was held in Honduras on the economic and ecological impact of the Pine Bark Beetle (*Gorgojo spp*). The course focused on methodologies for identifying, monitoring, and controlling the beetle, including the use of integrated pest management. Field exercises were used at the end of the course to test the new knowledge gained through this course and all participants passed (July 2005).

Exotic Forest Pests Management Workshops: A workshop was held in Mexico for representatives of each of the eight countries to initiate information sharing regarding damage caused by and control of forest pests. Topics of discussion included the species of

concern in this region, prevention strategies, maintaining information data banks, quarantine efforts, risk assessment, and laboratory access for species identification. Prevention in most of these countries consists of efforts at national borders and points of entry. As such, discussions focused on cross-border cooperation to more effectively and efficiently use the limited personnel and equipment resources available (May 2005).

Emergency Fire Response and Preparedness:

Fire Response to Laguna del Tigre National Park: DOI worked with Wildlife Conservation Society to strengthen the wildfire prevention capabilities of CONAP and CONAP's Guatemalan partner organizations, with a focus on the Maya Biosphere Reserve (MBR), with special emphasis on the following priority areas within the Laguna del Tigre National Park. The work integrated CONAP, CIPECIF, and ACOFOP, and consisted of: (1) controlling areas susceptible to fires before they are burned, (2) monitoring and retarding the fires across the MBR, (3) improving the field communications capacity of CONAP, (4) monitoring the development and impacts of fire across the reserve, (5) providing and activating telecommunications repeaters for improved field communications, (6) monitoring hot points appearing on satellite images and evaluating the extent of areas affected by fire, and (7) providing limited support to CONAP's partner organizations supporting the management and conservation of the MBR (July 2005).

Emergency Forest Fire Assessment: DOI sent a fire management officer to Guatemala on an emergency request from USAID/Central America to provide technical assistance at the height of Guatemala's fire season in Guatemala. DOI worked directly with representatives of the Government of Guatemala and non-governmental organizations and provided recommendations that would help improve fire response coordination, preparation, and execution. From a military helicopter, DOI witnessed thousands of forest fires, the majority of which were set by farmers burning land to clear for agriculture, ranching, or hunting, over much of the Mayan Biosphere Reserve (MBR) in northern Guatemala. Following his field visits, DOI met with the Guatemalan President's Chief of Staff, where DOI reiterated that at the root of the problem were trespass/law enforcement issues. USAID was interested in motivating the Government of Guatemala to more highly prioritize the protection of the MBR (Apr 2005).

Planning and Administration:

DOI-ITAP, USAID, and CCAD worked very closely through a series of meetings and follow-up work to develop a comprehensive workplan through consensus. As needs change and new opportunities identified, DOI-ITAP has remained flexible to seek consensus on changes and to adjust the workplan accordingly. Included among these events are:

Coordination Meetings: Two Program coordination meetings were held, one in Honduras and one in Panama, to review the CCAD/USAID/DOI Fire Management Program Workplan. Highlights include: Mexico announced that it will help to finance a regional fire management course included within this Workplan and to be held in Honduras in November 2005; USAID would approach the Office of Foreign Disaster Assistance (OFDA) for funds

to offset costs for additional workshops and forest fire management trainings (Apr and May 2005).

Contract NGO: DOI contracted a Central American non-governmental organization (NGO) called Kukulkan to assist with much of the workshop/training logistics and on-the-ground project monitoring and evaluation, saving program funds by greatly reducing travel distances (Dec 2004).

Final Workplan Development: DOI met with USAID/G-CAP and CCAD in El Salvador to make final changes to Program Workplan, Budget, and Chronology of Events, which have been approved by all and ready to implement (July 2004).

Draft Workplan Development: DOI and USAID/G-CAP finalized the Program Draft Workplan, Budget, and Chronology of Events (June 2004), and distributed to all USAID offices in Central America and Central American government agencies involved in fire and pest management, for final review and revisions (June 2004).

Program Budget: USAID/G-CAP staff met with DOI at the Department of the Interior offices in Washington, DC, to work on a Budget for the Draft Workplan developed with CCAD input during the April meeting (May 2004).

Prioritizing with CCAD: DOI participated with USAID/G-CAP in an initial workshop with CCAD to determine the regional priorities regarding forest fire and pest management and develop the Draft Workplan for this program (Apr 2004).

Central America & Caribbean Fire Mgmt Workshop: DOI participated in a Central America and Caribbean Regional Fire Management Workshop with staff from USAID offices, non-governmental organizations and the private sector, held in the Dominican Republic. DOI gave a well-received presentation introducing the new Central American Fire Management Program. The purpose of this meeting and its presentations was to ensure a wide and effective collaboration and sharing of fire management lessons learned (Mar 2004).

Cross-Pollinate with Mexico: DOI met with USAID/Mexico, U.S. Forest Service (USFS) staff, and Mexican Government staff in Mexico City. These meetings were critical to initiate an effective integration with the Mexico Fire Management Program being run by USAID/Mexico with the technical assistance of the USFS. Mexico fire management is generally well ahead of most of the rest of Latin America and could benefit the Central American countries as a role model and through its lessons learned (Mar 2004).

Initiate Program: DOI met with USAID/G-CAP in Guatemala City to initiate data gathering and interview key staff for Program background and expectations (Feb 2004).

Quarter-Time Fire Manager:

Reduced to Quarter-Time Fire Manager: Due to a lightening of the workload after the intensive work in getting this program started, Tim Bradley has been reduced to quarter-time technical fire manager. He will continue to be involved as a technical advisor for the fire

and pest management activities, in addition to participating as trainer in several of these activities (Mar 2005).

Hired Half-Time Fire Manager: Timothy Bradley, National Park Service Fire Ecologist from Whiskeytown National Recreation Area in northern California, has been brought on a reimbursable half-time detail to DOI-ITAP to coordinate the Central America Fire Management Program. Mr. Bradley will continue to work from his home base while managing this program (Jan 2004).

SIGNIFICANT PROBLEMS OR DELAYS

It is expected that Mexico will submit its revised small grants proposal, as required, once this year's fire season comes to an end (July-Aug 2005).

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Small Grants: *DOI will continue monitoring and disbursing the remaining 30 percent of small grants funds to grantees as they implement their projects.*

Workshops and Trainings: *DOI will sponsor fire causes training course in Costa Rica, will participate in a Donors Coordinator Meeting in Nicaragua and will continue working with individual countries with their efforts to sensitize their governments as to the importance of fire prevention and control.*

Economic Valuations: *DOI will continue applying natural resource valuation models to actual case studies within each country.*

Emergency Fire Response: *DOI will work with two NGOs, Fundación Defensores de la Naturaleza (FDN and The Nature Conservancy (TNC)), on emergency fire contracts for fire control during the fire season.*

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance on the Central America program are available upon request.

COLOMBIA

Improving the Management of Colombia's National Parks

SUMMARY OF ASSISTANCE

Colombia's extraordinary national parks system encompasses some of the world's most biologically diverse tropical forests. The U.S. Congress has noted that these protected areas are among Colombia's greatest natural resources and that they represent a huge potential source of income via eco-tourism. As such, the U.S. Congress slated \$3,500,000 for USAID/Colombia to devote to training, equipment, and other assistance to enhance the Colombian national parks.

In October 1998, the U.S. Department of the Interior signed a Framework for Cooperation with the Colombian Ministry of the Environment, which was approved by the U.S. State Department. It remains operational and outlines a variety of cooperative activities, but is subject to the availability of funds and the personnel of each party.

At the request of USAID/Colombia, DOI and the Colombian National Parks Unit (CNPU) are collaborating to improve the overall management of the Colombian National Park system. DOI and CNPU are working to meet identified needs at the headquarters, regional, and park levels. Identified needs include: equipment purchase and delivery; infrastructure design, planning and construction; increased staffing in protected areas; and staff training.

FUNDING

USAID/Colombia in FY '04

RESULTS TO DATE

DOI and CNPU submitted a life-of-project workplan to USAID/Colombia (October 2004). The contract with Colombia's Corporación for Environmental and Cultural Protection and Territorial Code (Corporación) was signed. Corporación is an independent non-profit organization that supports the development of programs and projects for environmental conservation and rehabilitation, alternative development, the creation and protection of protected area systems, and the value of the nation's archaeological and anthropological resources. Corporación members include the Ministry of Environment, Housing, and Territorial Development (via the CNPU); the Ministry of Culture; and the Administrative Department of the Republic's President. Corporación will oversee all equipment purchase and delivery; infrastructure design, planning and construction; increased staffing in protected areas; and staff training (Dec 2004).

DOI has secured the services of Juan Carlos Riascos, former of the Colombian National Parks Unit, to provide senior-level oversight on the project (Feb 2005).

Corporacion has completed 12 percent of the operations and infrastructure maintenance and 20 percent of the staff contracting, and is continuing with all other procurement activities (Sept 2005).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Procurement activities will be continued.

ADDITIONAL INFORMATION

A technical proposal describing proposed DOI technical assistance in Colombia is available upon request.

ECUADOR

Conserving Biodiversity in Ecuador's Protected Areas

SUMMARY OF ASSISTANCE

DOI is providing technical assistance to help the USAID/Ecuador Mission accomplish Strategic Objective 1: Biodiversity conserved in selected protected areas and their buffer zones. DOI is providing technical assistance to The Nature Conservancy and its partners – Fundación Antisana and Fundación Ecologica Rumicocha – on key components of The Nature Conservancy's Project Bioreerva del Condor in five of Ecuador's high Andean protected areas: Cayambe-Coca Ecological Reserve (403,103 hectares), Antisana Ecological Reserve (120,000 hectares), Cotopaxi National Park (33,393 hectares), Sumaco Galeras National Park (205,249 hectares) and the Cotacachi Cayapas buffer zone. DOI is also providing technical assistance to CARE and its partners – Ecociencia and Jatun Sacha – on the SUBIR project and the Southern Border Development Program, and to Charles Darwin Foundation and Galapagos National Park in support of conservation in the Galapagos Islands.

FUNDING

USAID/Ecuador in FY '05

USAID/Ecuador in FY '02

USAID/Ecuador in FY '01

USAID/Ecuador in FY '00

USAID/Ecuador in FY '99

USAID/Ecuador in FY '98

RESULTS TO DATE (FY '01 TO PRESENT)

Andean Highlands

Training: DOI has provided training and technical assistance to Ecuadorians associated with the Condor Bioreserve Project in:

- Condor reintroduction;
- Relevant, practical, and effective environmental education techniques;
- Interpretation and interpretive planning;
- Development of ecotourism activities;
- Protected area management;
- Biological monitoring;
- Aquaculture and the development of recreational fishery opportunities; and
- Resource valuation.

Bear Research Project:

DOI sponsored one Ecuadorian spectacled bear researcher to present a paper at the 14th International Conference on Bear Research and Management in Norway (August 2002).

A DOI bear expert reviewed the existing spectacled bear research project. Activities included reviewing and revising statistical modeling procedures (e.g., census protocols) and presenting a workshop on habitat analysis. Workshop participants included 18 scientists from Colombia, Venezuela, and Ecuador (May 2002).

DOI assisted Ecociencia with further research on Ecuadorian spectacled bear habitat in the Condor Bioserve (Sept 2004).

Resource Inventory and Monitoring: A DOI team spent 3-weeks providing assistance to Cotopaxi National Park staff and Ecuadorian NGOs, coordinating a monitoring needs assessment, providing training in resource monitoring, and working with the park and NGOs to develop a resource monitoring plan. The plan includes tracking wildlife sightings, vegetation changes, photographic monitoring of fire impacts and ecosystem recovery, and record keeping of park visitation and visitor use impacts, among other trends (May 2004).

Visitor Center Development: One DOI interpretive planner traveled to Cotacachi Cayapas Ecological Reserve and the Quito Zoological Park to meet with Ecociencia staff to assist with the planning and design of interpretive centers (July 2002).

DOI Assistance to Fundación Antisana: Fundación Antisana is a local NGO working on water resource issues and the protection of Antisana Ecological Reserve, a high Andean protected area located southeast of Quito. A workshop was conducted that focused on regional water resource development issues and financing the protection of environmental services provided by the ecological reserve. Increasing demands for water from Quito and other communities, including proposals to tap into Antisana's water resources, motivated this request for DOI assistance. DOI conducted media interviews with Radio Bolivar and Quito's principal television station, Gamavision, as part of the effort to better inform the public about the issues of water resource development and environmental protection (July 2001).

DOI and Fundación Antisana conducted a workshop on tools and techniques for assessing and evaluating the impacts of water resources development, with a particular focus on the impacts of surface water diversions and dams. The workshop was attended by two dozen participants from local nonprofit and community organizations, and the Environment Ministry (Dec 2004).

Oil Spill Response in Watersheds: A team of DOI contaminants specialists provided a hands-on, state-of-the-art training on responses to various oil spill scenarios. The training focused on above the ground oil pipeline ruptures in high Andean habitat, and incorporated initial response protocols and post-spill resource monitoring. The training included a one week formal course, in addition to pre-course monitoring and post-course follow-up activities (Aug 2005)

Environmental Educators' Network: DOI organized a network of environmental educators in the condor bioserve area. This network ties all of the environmental education efforts in the area to common objectives. DOI has provided follow-on technical assistance to the environmental educator's network in: the preparation and presentation of a theme-based program; interpretation

for park guards; zoo interpretation; classification and techniques for working with different age groups and audiences; ecological clubs; interpretive planning; and the history, philosophy and theory of environmental education.

Train the Trainers: DOI interpreters worked with Peace Corps/Ecuador and the El Chaco municipality to provide a train-the-trainers workshop for Peace Corps Volunteers and Ecuadorian counterparts on environmental education and interpretation (September 2004).

Galapagos Islands

Aerial Photography: DOI provided technical assistance in aerial photography, using the Seawolf aircraft procured by DOI in 2003 for Galapagos National Park. A DOI expert trained park staff in the use and maintenance of aerial photographic equipment and data analysis. High resolution aerial photographs will enable the park to keep detailed data of strategic conservation sites, in order to monitor natural phenomena such as fire and drought, and man-made threats such as oil spills. In addition, the data can be used to perform multi-temporal analysis of visiting, breeding and nesting sites for migratory birds and other wildlife, as well as critical sites of human or natural interference (May 2004).

Museum Curation: DOI sponsored 3-weeks of intensive museum curation training for Carlos Villon, a Galapagos National Park staff member. The training was located at the California Academy of Sciences in San Francisco which houses the largest collection of Galapagos biological materials outside of the Galapagos. Villon is expected to apply the training to revamp the museum collection on the Galapagos (Feb 2003).

Isabela Island Ecotourism: DOI provided two experts to assist in the development of an ecotourism plan and an environmental assessment for the Isabela Island unit of the Galapagos Islands National Park. Their work included working with all relevant partners to develop a scope of work and terms of reference for initial program components, which include community organization, a socioeconomic study and the development of an ecotourism plan (March 2002).

DOI worked with staff from USAID/Ecuador and Galapagos National Park to develop Terms of Reference (TORs) for the Isabela Ecotourism development project. The TORs will be used as a basis for contracting this project out to the private sector. DOI's assistance has been requested for certain specialized areas of this project (July 2001).

Interpretation/Exhibits: DOI worked with the Galapagos National Park to design, construct and install interpretive and destination signs at trail heads in newly established trails within the Park and to train personnel in the design, construction, and installation of park signs. DOI also helped establish a list of equipment needs for future signs. Most of the sign work occurred on the Island of Isabela (July/Aug 2002). DOI worked with the Charles Darwin Research Station to provide recommendations to upgrade terrestrial and marine exhibits at the Van Straelen Interpretation Center on Puerto Ayora. Recommendations were also provided to the NGO Ecociencia regarding interpretive planning and exhibit development (May 2001).

Success Story

USAID/Ecuador reports that the signs installed with DOI technical assistance are “the best in the Galapagos!”

A DOI representative provided assistance in the design and construction of interpretive panels to be displayed in the new visitor center on Isabela Island, Galapagos National Park (June 2003).

Fisheries Database Assistance: Follow-up assistance on the fisheries database has included the addition of stock assessment numbers for both sea cucumbers and spiny lobsters at the Charles Darwin Research Station (July 2002).

DOI worked with the Charles Darwin Research Station on the management of their fisheries database. Efforts included cleaning and reinstating the integrity of the database; establishing a security system; and training staff to effectively maintain and utilize this database (June 2001).

Invasive Species Assistance: A DOI representative provided technical assistance on the eradication of the introduced puddle frog, a nonnative species to the Galapagos which is having a serious adverse impact on Isabela Island’s wetlands resources. The control of this invasive species is viewed as an extremely urgent management issue. Follow-up technical assistance via email has been provided (May 2002).

A DOI representative participated in the Technical Advisory Group for Invasive Species in Galapagos Islands National Park and provided follow-on technical assistance and advice regarding control of invasive amphibians (June 2003).

A DOI representative provided technical assistance in the design and construction of native gardens on Isabela Island, Galapagos National Park (August 2003).

Law Enforcement: DOI is providing ongoing training in law enforcement to the park guards of Galapagos National Park. DOI provided basic training as well as more advanced law enforcement training on techniques for control and surveillance. The training consisted of classroom time as well as many practical exercises. In addition, relevant equipment was provided to the park guards, including small tents, sleeping bags, flashlights, Leatherman tools, night vision binoculars, video cameras, digital cameras, GPS portable units, boots, and rain gear. The DOI agents also worked with their counterparts to develop practical law enforcement forms. The law enforcement technical assistance was provided by DOI law enforcement special agents during the initial training period April/May 2000 and in conjunction with the international NGO WildAid during the more advanced training course in Sept/Oct 2001.

DOI conducted advanced marine law enforcement training in conjunction with WildAid (Aug 2003).

DOI worked with Galapagos National Park to design and procure a set of custom-designed badges for official law enforcement personnel. These badges will now easily and readily identify law enforcement personnel to park users. The badges will be distributed by the Park and USAID in an official ceremony at the end of the marine law enforcement training scheduled for February 2005 (Aug 2004).

A DOI law enforcement expert spent 3.5 days aboard the Guadalupe River providing one-on-one training to park guards and observing the enhanced law enforcement capabilities of the newly refurbished Guadalupe River (Sept 2004).

A DOI team of law enforcement experts partnered with the NGO WildAid to provide an advanced marine law enforcement course for Galapagos National Park marine reserve guards, and several visiting guards and officials from Panama, Colombia and Costa Rica. Through case studies and role playing scenarios, guards learned techniques for crime scene investigations, patrolling by sea, and first aid. In addition, DOI procured binoculars and GPS units for the marine reserve, and the DOI team trained the guards on how to use and maintain these tools to enhance their law enforcement capabilities (Sept 2005).

Marine Biological Monitoring: DOI led the effort to revise and upgrade the Galapagos Islands biological monitoring program to include the newly designated marine reserve (May/June 2000).

Marine Reserve Plan Development: DOI has provided technical assistance to Ecuadorians working with Galapagos National Park and the Charles Darwin Research Station on the development and implementation of a marine reserve management plan (July 1999).

Guayaquil

Law Enforcement: DOI provided a short law enforcement overview for the Bosque Protector Cerro Blanco Protected Area (Sept 2004).

Watershed Infrastructure Impacts: DOI conducted a short technical assessment of several water infrastructure and land use projects that are planned or being implemented in and near Guayaquil, and provided recommendations for the city's Environmental Management Agency (Dec 2004).

SUBIR Project

NGO Assistance: DOI conducted road location and timber harvesting short courses with nongovernmental organizations in Quito and at selected field sites. This assistance was a continuation of previous technical assistance on appropriate road development for community forestry under the SUBIR project (Sept 2001).

Remote Sensing Technology Assistance: DOI is providing technical assistance on remote sensing techniques for sustainable community forestry purposes. A workshop was held

focusing on the principles of vegetation inventory using satellite imagery and imagery processing techniques. Protocols were written up and developed into manuals. A formal link was established between the National Science Technology Center in the U.S. and the SUBIR project to facilitate SUBIR's continued access to the most up-to-date technology and promote ongoing training and exchange opportunities. Ongoing technical assistance -- via email -- is being provided on remote sensing issues as they relate to refining photo-interpretation technology for sustainable community forestry (May 2001).

Protected Area Management

Training Program:

Six Ecuadorian protected area managers attended the 3rd annual Wildlands Management in the Tropics training program in Costa Rica, which is managed by the Organization for Tropical Studies. Two of the trainees were from indigenous communities (Aug/Sept 2001).

DOI sponsored five Ecuadorians to participate in the 4th annual Wildlands Management in the Tropics course in Costa Rica (Aug/Sept 2002).

DOI sent four participants from Ecuador to the 5th Annual Wildlands Management in the Tropics course in Costa Rica (Oct/Nov 2003).

Project Coordination

A DOI Project Manager and marine law enforcement expert traveled to Guayaquil and the Galapagos. The Project Manager:

- met with USAID/Ecuador, Mexican fisheries experts, an IUCN fisheries representative, and Ecuadorian counterparts to plan a Galapagos/Mexico fisheries exchange;
- met with the head of the Guayaquil Environment Department and reviewed potential projects with him regarding the City of Guayaquil; and
- met with Executive Director of the Bosque Protector Cerro Blanco and planned a 1.5 day law enforcement overview for Bosque Protector Cerro Blanco protected area.

With the marine law enforcement expert, the Project Manager:

- reviewed operations of the Seawolf aircraft and Guadalupe River patrol vessel. On the aircraft, the team conducted a 4.25 hours overflight of the marine reserve, observing law enforcement efforts (Sept 2004).

DOI coordinated the return shipment to the Galapagos of an emergency life raft and life vests for the Seawolf aircraft flight crew (July 2005).

The DOI Project Managers traveled to Quito and the Galapagos to meet with USAID/Ecuador and local partners. Technical assistance projects were planned for the rest of the fiscal year (March/April 2004).

A contract was processed with MT & Associates to provide GNP staff with training on the care and maintenance of the Seawolf amphibious aircraft procured for the Galapagos by DOI (March 2005). DOI coordinated a training that was provided by the contractor, MT & Associates, for five individuals, including a GNP pilot and mechanic and a park consultant, on the maintenance of the GNP Seawolf amphibious aircraft, which is used for law enforcement and resource monitoring activities (April 2005).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

A team of DOI experts in interpretation and visitor management will provide technical assistance on interpretive planning and exhibit design for a new visitor center at Santa Cruz Island in Galapagos National Park.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in Ecuador are available upon request.

GEORGIA

Protected Areas Development Project

SUMMARY OF ASSISTANCE

DOI has established a long-term working relationship with the Republic of Georgia to foster a national system of protected areas in Georgia. The working relationship was formalized in a Memorandum of Understanding signed in 1999 which created a general technical assistance program and a specific sister park relationship.

With funding from USAID/Georgia, DOI is providing broad technical assistance at the headquarters level on establishing a national training center and a national training program focused on issues of park system management, administration, and personnel management. DOI is also providing field-level technical assistance and training.

FUNDING

USAID/Georgia in FY '05

USAID/Georgia in FY '00

USAID/Europe and Eurasia Bureau in FY '99

RESULTS TO DATE

Protected Area System

Institutional Planning and Restructuring:

DOI sent a team to Tbilisi to push forward recommendations on the restructuring of the Georgia Protected Areas Department (PAD). The team developed:

- written guidelines to reorganize and strengthen the PAD, with position descriptions and
- a training strategy for the PAD

The team met with the President, Prime Minister, American Ambassador, Minister of the Environment, and Ministers of Finance, Education, Culture and Sports to discuss their recommendations. The team brought high level attention to critical issues facing the management of Georgia's protected areas (Dec 2004).

DOI sent a team to Georgia to concentrate on operationalizing existing management plans at Vashlovani, Tusheti, and Lagodekhi National Parks (Oct 2003).

DOI sent a team to Georgia to work with the Georgian protected area central office to initiate reorganization of the central office, help finalize position descriptions, encourage hiring of new staff, and complete reorganization charts (Oct 2003).

Through DOI-ITAP, U.S. Forest Service personnel provided preliminary training and technical assistance in landscape-level planning. The Forest Service team developed a detailed workplan for follow on technical assistance over the 5-year life of project (July 2003).

ITAP developed a plan of work for CY '03 to provide technical assistance and training in a variety of key areas, including management planning, law enforcement, central office operations, the development of ecotourism materials, and landscape-level planning (Jan 2003).

A DOI team conducted a workshop with Georgian resource managers and other stakeholders to review the proposed reforms and ensure public participation (Nov 1999).

DOI staff prepared a long-term mission statement for Georgia's protected areas management. In addition, they identified changes in legal authorities needed to meet expanded management objectives and drafted a Presidential Decree used to achieve the new organizational structure and mission of the Department (Nov 1999).

With World Bank funding, a DOI team conducted an assessment of Kolkheti Wetlands National Park in western Georgia and advised the World Bank project team of the Park's critical needs to protect resources and establish immediate management. Kolkheti is a sister park with Point Reyes National Seashore in California (Nov 1999).

DOI completed an institutional analysis of the Department of Protected Areas, including a cost assessment of the equipment, facilities and infrastructure improvements for the Department (Oct 1998).

Field-Level Training:

A team of DOI specialists from NPS and USFWS provided 2-weeks of training to Georgian protected area staff on field-level protected area management, law enforcement, and search and rescue. The DOI team also developed a workplan for follow on technical assistance over the 5-year life of project (June 2003).

With program funding, DOI has assisted the staff of Lagodekhi Nature Reserve to:

Design and construct central entrance facilities. Lavatory facilities have been constructed. A 1.7 km long fence to prevent illegal grazing of livestock has been installed (June 2001).

Perform necessary maintenance on an administration building. The roof has been repaired, with new iron sheeting and rain-gatherers installed (June 2001).

Refurbish buildings. Two buildings near the entrance gate, parking, and other necessary visitation infrastructure at Lagodekhi National Park were refurbished to design specification (June 2001).

Design and construct a 4-km central nature trail to the waterfall. A 14-m long wooden bridge over a small river has been built. Major cleanup and ground works (e.g., excavations, scouring of soil, etc.) on a trail have been completed (Nov 2000).

Designed a logo and uniform patch for Lagodekhi National Park (Dec 1999).

DOI established a network of sister parks, linking several national parks in the U.S. with ecologically appropriate counterparts in eastern Georgia. The U.S. parks have provided excess trail-building and maintenance tools and uniforms to their Georgian twins (Nov 1999).

U.S. Study Tours

DOI organized a 2-week study tour in Washington, D.C. and Alaska to show a group of high-level government officials from the Republic of Georgia how the U.S. manages federal lands and protected areas (July 2004).

The head of the World Bank's Project Implementing Unit, Paata Shanshiashvili, and the new PAD director visited the U.S. for training and participated in planning meetings in Washington, DC (Aug 2003).

DOI officials conducted specially designed park management seminars and study tours of U.S. national parks with Georgian park managers and parliamentarians (April 2000).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Field a team in October 2005 to develop an FY '06 workplan.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in Georgia are available upon request.

GEORGIA

Integrated Coastal Management Project

SUMMARY OF ASSISTANCE

DOI has launched a second working relationship with the Republic of Georgia to provide targeted technical assistance in interpretation under the World Bank/Global Environment Facility's Integrated Coastal Management Project. The majority of the technical assistance has been focused on Kolkheti National Park, located in West Georgia, which covers an area of 28,571 ha of land and 15,742 ha of marine territory. The park was established in 1999 and incorporates the Kolkheti State Reserve established in 1947 (500 ha) and the adjacent wetlands, as well as the Paliastomi Lake. Kolkheti is a designated RAMSAR site.

DOI technical assistance is focused on various aspects of interpretation, including:

- Trail design and construction;
- Trail interpretation, including signage and brochures;
- Visitor facility design, including entry points, kiosks, visitor centers, campsites;
- Design of interpretive materials, such as displays, brochures, posters;
- Develop public outreach and education programs;
- Training in oral interpretation.

Success Story

With the help of DOI experts, educational and informational signs in English and Georgian were developed for the Kobuleti Nature Reserve. The Georgians identified local sources of fabrication and installation and installed the signs along a trail. The Minister of Environment participated in an installation ceremony. DOI experts were also instrumental in reviewing the designs of the Kolkheti National Park visitor center and headquarters. A DOI-ITAP study tour was credited with providing inspiration for the designs.

FUNDING

World Bank in FY '04

RESULTS TO DATE

A DOI interpretive expert traveled to Washington, DC to finalize interpretive boards for Kobuleti Reserve. The boards were delivered to Georgia (May 2005).

DOI technical experts have provided extensive review and recommendations via email to the Project Implementing Unit, including scoring of schematic designs for the Park headquarters and visitor center (Jan–March 2005).

A team of three interpretive experts traveled to Georgia to conduct a strategic interpretive planning process and to help draft an interpretive plan for Kolkheti National Park. The team

organized and facilitated a brainstorming session that was designed to help develop interpretive themes and to identify additional audiences for the Park. The meeting was attended by more than 30 people, including scientists and resource specialists, representatives from nongovernmental organizations, Kolkheti National Park staff, and employees from other protected areas, government officials, and private citizens. Additionally, the team followed-up on a variety of projects initiated by earlier ITAP teams and provided technical assistance as requested (Dec 2004).

A second team of interpretive experts worked on developing an interpreted visitor trail in Kolkheti National Park in July 2004.

A team of three interpretive experts traveled to Georgia in May 2004 to conduct an assessment and provide preliminary interpretive technical assistance. The team developed a work plan for interpretive technical assistance through Dec 2004.

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Secure continued funding for the project.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in Georgia are available upon request.

INDONESIA

Mine Policy

SUMMARY OF ASSISTANCE

DOI-ITAP is providing technical assistance to the Government of Indonesia to support the decentralization process and to build capacity in local governments to manage mineral resource programs at the local level. Through a long-term on-site Project Director on detail from the Department's Office of Surface Mining (OSM), and through short-term exchanges of OSM and state-level mining experts, DOI-ITAP has provided technical support to the Ministry of Energy and Mineral Resources (ESDM), the Ministry of Environment (MLH), the Ministry of Forestry, the National Planning Agency (BAPENAS), the Provincial Governments of South Sumatra, North Sulawesi, and of East Kalimantan, and the county governments of East Kutai, Kutai Kertanegara, Muara Enim, South Sumatra and Sawahlunto, West Sumatra. An intern program and advanced inspector training has been provided to appropriate Indonesian professionals to support the efforts of ESDM to decentralize and to build capacity among Kanwil and Provincial Government Mine Inspectors.

FUNDING

USAID/Indonesia in FY '05
USAID/Indonesia in FY '04
USAID/Indonesia in FY '03
USAID/Indonesia in FY '02
USAID/Indonesia in FY '02
USAID/Indonesia in FY '02
USAID/Indonesia in FY '01
USAID/Indonesia in FY '00
EAPEI in FY '00
EAPEI (reprogrammed) in FY '00

RECENT RESULTS

Developing or Improving Linkages

DOI has been helping relevant Indonesian agencies develop more rational positions on mining and the environment and then better defend those positions when overlapping interests collide.

Ministry of Energy and Mineral Resources (ESDM) and Ministry of the Environment (MLH)

- ESDM and MLH have many overlapping interests but rarely have the opportunity to discuss these interests at the working level. Following the decentralization of mineral management to local governments, DOI began initiating joint training and field exercises for staff of the two Ministries. Most MLH people have never visited mines nor have a

mining-related degree, so they have required some basic training on mining and minerals management.

Success Story

As a direct result of DOI's program in Indonesia, mining companies are now required to post a financial guarantee that reclamation and closure will take place. Guidelines on mine closure procedures were also prepared to support the concept of overall mine reclamation. Details are all included in Ministerial Decree 1453.K/29/MEM/2000 which transferred regulatory responsibility of mining activities to local governments.

- MLH requested assistance from DOI in developing water quality standards for the coal mining industry. The project collaborated with a team from MLH on new effluent standards for coal mining operations. Discussions included an explanation of the U.S. industry-specific standards and why those parameters and numbers were selected. Ministerial Decree, KepMLH/113/2003 on coal mining effluent limits, was signed and implemented in July 2003. The decree sets standards for discharges from both mining areas and preparation plants. The standards are similar to those adopted in the U.S. for pH, Iron and Manganese but are higher for Total Suspended Solids. As these new standards are enforced the water quality leaving coal mine sites will be greatly improved.
- Following this decree, MLH requested additional assistance in developing water quality standards for metal mining. Project staff has been part of a working group developing water quality standards for the copper and gold industries. These new standards were promulgated in a Ministerial Decree in October 2004.
- The AMDAL (Environmental Impact Analysis) is Indonesia's version of the EIS in the U.S. The process is very similar to the EIS process but AMDAL documents generally lack detail and are not as useful as they should be in the decision making process. The project has worked with a team from the Ministry of Environment and the Ministry of Energy and Minerals Resources to develop a training course for the Review of AMDALS for Mining Operations. This course was first team taught as a pilot course and then revised. The entire course with lesson plans and student handouts was translated into Bahasa, Indonesia and delivered to units within both Ministries. In August 2004, the class was sponsored by the project but with all Indonesian instructors from both Ministries teaching the class to 28 students in Padang, West Sumatra. Two DOI instructors participated but only provided support to the primary instructor team. The class was well received and is now part of the class repertoire of two Ministries.

Ministry of Forestry (MOF) and ESDM

- There has been conflict between the two Ministries over mining in protection forests. ESDM issued mining concessions to 152 companies to explore and exploit minerals in areas that were later declared protection forests by MOF. The two Ministries were unable to resolve the issue so the Indonesian Parliament (DPR) became involved. At the

request of USAID, the Project provided MOF basic mining information for use in meetings with the DPR and ESDM. MOF was given additional working papers on the impacts of mining on watersheds, water quality, and water quantity. These are the very values protection forests were set aside to protect.

- Protected forests do not share the same absolute prohibitions against mining as conservation forests and parks but access is limited because of their important role in protecting watersheds and valuable habitats. Cooperation continues with the Ministry of Forestry on developing criteria it can use for mines approved to operate in protected forests. The project is providing training in the basics of mining, its impacts and mitigation and reclamation.
- DOI participated in a national planning agency (BAPENAS) session “Natural Resource Planning Until 2020”. A number of government ministry representatives contributed to this session. The thrust of the planning exercise was to examine the way natural resources (mineral and forestry) are presently being managed to determine whether the current scenario is sustainable until 2020 and to create alternative management options that would be sustainable.

Training and Capacity Building

- *The most requested class developed by DOI-ITAP is the Review of AMDALs for Mining Operations. This class was presented for the last time in Pontianak, West Kalimantan for provincial and local government officials in one of USAID’s priority areas. West Kalimantan is experiencing a surge in applications for mining permits and the AMDAL process is the way government can evaluate the impacts of an operation. The skills in evaluating AMDALs carry forward to all types of activities proposed in watersheds and will be critical in protecting watershed functions so clean water is available for use downstream. This class was presented by an all Indonesian team of instructors who have presented three times and have become very proficient. This is a clear example of a successful technical transfer.*
- An initiative under USAID/Indonesia’s Higher Quality Basic Human Services initiative is the development of training, in cooperation with the Geology Center, Agency for Education and Training, on the geologic considerations for siting, constructing and managing landfills. Landfills in Indonesia are, in essence, open dumps. Most are placed on hillsides so gravity aids in the dispersal of material. Little consideration is given to downstream water quality or stability of the slopes where dumps are placed. In early 2005, there were two catastrophic failures of dumps in West Java. One killed over 140 people and the other 6. There are still people missing from the garbage slides that occurred and all efforts to locate them have stopped. Landfills are a significant polluter of watersheds in Indonesia. Training for government personnel who are responsible to develop and manage landfill sites was held in July 2005.
- AMDAL Training continues to be requested by local governments who now have the responsibility to assess the environmental impacts of activities but still have meager

technical resources to adequately assess projects or predict impacts. Environmental impact assessments are based on the collection of good baseline information, accompanied by reasonable assumptions about the conduct of mining activities, and conservative predictions of the expected outcomes from those activities. The Indonesian Environmental Assessment or AMDAL has been viewed as little more than a necessary hurdle in the path of obtaining a mining permit. Local governments do not understand the mining process very well and have little idea about what baseline information is important to make an assessment. Unfortunately, very little site specific data are usually presented and few details about the mining and reclamation plan are included because speculators are obtaining concessions and are trying to sell them, complete with permits, to prospective buyers. During 2004-2005, the project developed a training course that not only describes the various mining activities and their associated impacts but teaches the participants what kind of baseline data are required for them to determine whether the project is a good one or one that would adversely impact other valuable resources like watersheds, natural areas or communities. AMDAL training has been taught four times with Indonesian co-instructors, translated into the Indonesian language, and presented in finished form to the Education and Training Centers of Ministry of Energy and Mineral Resources. The class presented in April 2005 in North Sulawesi was the first time the class was presented using only Indonesian instructors. The strong lesson plan and earlier “practice sessions” with American co-instructors ensured the class was well presented. This is an example of a successful transfer of knowledge.

- The primary mission of the Agency for Education and Training in the Ministry of Energy and Mineral Resources is training. In 2005, the agency recruited and hired 32 new employees who will become instructors for Ministry sponsored training. These new technical personnel were never trained to be teachers so DOI-ITAP was asked to teach these new hires how to prepare lesson plans, make effective presentations and manage a classroom. DOI-ITAP instructors taught two 1-week sessions to this group to provide a basic foundation that will strengthen their instructor skills.

Success Story

DOI's recommendation to install new circuits to recover fine coal in coal processing plants will likely result in major improvements to coal processing plant efficiencies. Presently, coal processing plants in Kutai Kartanegara, East Kalimantan employ an inefficient flow through system to rinse the coal and partially separate mud and clays from the coal. A fine coal recovery circuit will recover at least 80 percent of the present 100,000 metric tons of losses from each company's processing plant --worth some \$4,000,000/year in company profit. This is profit because all of the mining and transportation costs have already been borne by the company plus some additional value is gained by not having to transport the tailings to a waste facility. This new recovery also increases the royalty paid to the government by \$540,000/year plus associated taxes from each company. The cost for installing the necessary equipment in existing plants is estimated to be \$1,255,000. This equipment is available for sale in the U.S. as well as Australia, China and Europe. At today's near record prices for coal, all improvements would be paid for in 6-8 months.

- In January 2005, Al Whitehouse and Asep Mulyana traveled to several provinces in Indonesia to observe mining and processing activities, and to meet with local and national officials. They discussed AMDAL (environmental impact statement) preparation, establishing a permitting process for water discharges from mines and preparation plants, environmental problems with small scale gold mining, environmental audits, discharge limits for coal, gold, copper mines, nickel and tin mines. They received official requests for workshops and classes on AMDAL contents to be held in the mining provinces.
- In February 2005, OSM and an Indonesian ministry official trained by the project provided a workshop on AMDAL Preparation for 24 government officials, university professors, and private AMDAL consultants on the purpose of AMDAL and the material needed for the Indonesian and local governments to assess impacts of proposed activities. The Jakarta office conducted a two-day workshop with field trip for local government agencies and small scale gold processors on cyanide vat leaching. Al Whitehouse briefed the U.S. Agency for International Development (USAID) “Basic Human Services” staff on OSM’s activities. OSM also prepared and sent detailed comments on a draft county government regulation instituting a new program for water discharge permits for coal mines.
- In March 2005, the Jakarta office attended a presentation of Newmont’s application for permit renewal for submarine tailings disposal. Al Whitehouse and Asep Mulyana held a workshop on small-scale cyanide vat leaching in Lebak County, Banten Province for local government and small scale gold processors. Carl Mount, Colorado Division of Minerals and Geology, and Peter Michael, OSM, traveled to Indonesia and taught a class on environmental audits for mining operations. The purpose of the environmental audit is to assess a company’s effects on the environment and assess government risk. Its objectives include assuring that the operations are complying with all applicable environmental laws, regulations, and policies; and determining if the company or industry has the organizational structure, management system, technical staff, equipment, and testing procedures to protect and enhance environmental interests. With Al and Asep, Carl and Peter traveled to the Training Center for Geology and the Training Center for Mineral and Coal Technology to discuss future training needs with their Indonesian counterparts. Peter presented a half day seminar on slope stability. They also traveled to the gold fields in Lebak County to observe conditions at small scale gold mining and processing operations and to further assist the local government with its demonstration cyanide vat leach project.
- DOI training in Indonesia has provided opportunities for participants from MLH and ESDM to discuss the issues that overlap in their respective jurisdictions. Co-Instructors were drawn from both MLH and ESDM to give both agency positions equal expertise and weight. Many “myths and urban legends” were debunked by free discussion and the help of a full set of both MLH and ESDM Regulations.
- A training session was held September/October 2003 in East Kalimantan and South Sumatra for Provincial and county Ministry of Environment, mining agencies and industry.

- Training for Trainers was held in March 2004 to meet a special request from ESDM BADIKLAT to improve the capacity of new hires in the two Bandung centers.
- Training in the U.S. is part of the recipe for initiating change in Indonesia. By providing good examples of current mining practices outside Indonesia, Indonesian regulators gain some confidence when proposing new requirements. Indonesian regulators are constantly battered by industry threats to abandon mining activities if new requirements or standards are implemented and they are labeled as anti-development. The regulators need first-hand experience to enhance their ability to make changes or counter industry claims.
- Seven participants from central, provincial county and city offices of MLH, and ESDM Training Centers in Bandung and county and city government traveled to the U.S. to meet with OSM, EPA, State Regulatory Agencies and NGOs about regulating mining in the U.S. During the visit the participants visited a number of active mines, both coal and metal and pre-law abandoned mines and superfund sites in July 2003. This mixed group sparked lively discussion which has continued after their return to Indonesia. Some visible cooperation has developed as a result of this trip, especially in Muara Enim.
- Conducted a 3-day session of “Training for Trainers” (Dr. Leslie Wildesen, ETCI, Inc.) for 24 instructors from the Center for Geology and the Center for Mineral and Coal Technology (Two training centers under the Agency for Education and Training in the Ministry of Energy and Mineral Resources).
- Meetings conducted with Mining and Environmental Agencies in Kabupaten (county) Muara Enim, S. Sumatra to discuss a draft local regulation on coal mine reclamation. A short course on Principles of Mine Reclamation was presented in May to assist the Agencies and local mining industry in reaching a reasonable and workable decision on the draft regulation language.
- Provided ideas and materials on a reclamation awards program for Subdivision on Environment under the Director General of General Mining (this is the mine inspector division). The agency plans to create a new award programs for high quality reclamation and were looking for ideas and ways to evaluate and select good award candidates.
- The Protect Director held a 2-day workshop on Principles of Revegetation and Reclamation with a field trip in Tanjung Enim, South Sumatra. This training was requested by the local government and the mining company to help them determine how to reclaim portions of the mine site and to determine what kind of reclamation was possible at the site. There has been little or no contemporaneous reclamation so many of the options that were available before mining began are not possible now.
- The Project Director was invited to be a guest lecturer to present a class on use of computers in Mine Permit Review.

- Meetings were arranged between Ministry of Environment, Bapedalda (Environment Agency) East Kalimantan, Samarinda City and Kabupaten (county) Kutai Kartanegara on revisions to local decrees to become consistent with last year's Decree of the State Minister of the Living Environment Number 113 on Effluent Standards for Coal Mine Discharges. It now seems possible for local governments to issue water discharge permits under the new decree which will provide authority for periodic inspections. Heretofore, no environmental inspections of mining operations were made by Ministry of Environment people. This will be a big achievement when finalized.
- The project provided two experts on Acid Mine Drainage to present papers titled Estimating Mine Water Composition from Acid Base Accounting and Weathering Tests; Applications from U. S. Coal Mines by Eric F. Perry and Geologic and Hydrogeologic Observations Useful in Predicting Mine Water Quality by Keith B.C. Brady at an International Symposium on AMD in Bandung. Another part of this Symposium was a 2-day short course on Acid Mine Drainage and the two experts taught 1-day of that short course.
- The project sponsored a trip in October/November 2004 to the U.S. for seven Indonesian Government officials from the Ministry of Environment and the Ministry of Energy and Mineral Resources to discuss decentralized regulatory programs in Colorado, Maryland, Pennsylvania and West Virginia. The group met with OSM, EPA, State Regulatory Agencies and NGOs about regulating mining in the U.S. During the visit the participants visited a number of active mines, both coal and metal and pre-law abandoned mines and superfund sites and explored such issues as developing and implementing performance standards for mining operations; water quality standards and water discharge permits; and abandoned mine land reclamation and funding.

Strategic Planning and Capacity Building in the ESDM Training Agency (BADIKLAT)

- Along with decentralization came a choice to attend training. BADIKLAT asked DOI for help developing specific lesson plans to fulfill training requests from local governments resulting from the needs survey DOI distributed last year. The Ministry's six-month mine inspector course is being reviewed and revised with project assistance. The course for AMDAL reviewers is complete and delivered to BADIKLAT. An AMDAL preparer's course is being developed with project assistance to improve the quality of submitted AMDAL documents in the mining sector. Other requests include Calculating Reclamation Guarantees, Groundwater Hydrology, Acid Mine Drainage Prediction and Prevention, and Sand Mining. The project is planning to provide additional training for trainers for Ministry Instructors to improve the quality of the agency trainers.

Technical Assistance to Local Governments

- DOI-ITAP is frequently asked for advice and assistance by local governments on a variety of mining issues. Most are very short-term requests or involve supplying copies

of publications from the Project library but some are more substantive and are worth reporting.

- DOI-ITAP was asked by BAPEDALDA Kutai Kertanegara for help reviewing an AMDAL for a coal mine expansion in East Kalimantan. Project staff attended meetings, reviewed the AMDAL document, and prepared a report for the Kepala BAPEDALDA to submit to the company requesting revisions.
- The Project was asked for help by the city government of Sawah Lunto, West Sumatra in determining reclamation options for the large government coal mine scheduled to close at year end. In July 2003, the adjacent river flooded the pit leaving a lake 1500m x 800m x 120m. Project Director and staff met with the mayor, his staff, and company officials to discuss reclamation choices that would provide long-term stability and good water quality.
- A third request for assistance came from the county government of Muara Enim, South Sumatra. The government coal mine has been having AMD problems from one mine pit and recently experienced a large landslide in the waste disposal area that destroyed a major electricity transmission tower. DOI was asked for help in determining reclamation options for the waste area to improve land stability and for training on AMD prevention and treatment. The project office is assisting with a local decree to make changes in the post mining land use and will present a workshop on reclamation of disturbed lands in May 2004.
- Following the Bandung Symposium, the AMD instructors traveled to Maura Enim in South Sumatra to teach a 1-week course on AMD Prediction, Prevention and Treatment for the local county government and the National Coal Mining Company, PT Bukit Asam, where there have been acid problems from their coal mines. The class included lectures and practical field exercises designed to help the company and the local government understand the causes of AMD and help them solve problems at those specific mines.

Small-Scale Gold Mining

- *Representatives from the UN Global Mercury Project visited Jakarta. The Project Director briefed the UN project staff and talked about their ideas to reduce mercury in Indonesia. Their primary area of interest in Indonesia was North Sulawesi but because of the work the DOI-ITAP project has been doing and the investments already made in vat leaching, they will likely change their focus area. The UN project hopes to reduce the use of mercury by encouraging the use of retorts. This technique only reduces the losses of mercury to the environment so there will still be widespread use but no increased gold recovery. The vat leach process replaces the use of mercury and improves gold recovery. Miners and processors in North Sulawesi are likely to be unwilling to return to mercury amalgamation after their investment in vat leaching and their increased gold recovery.*

- Between April and June 2005, work continued with the small-scale gold miners in North Sulawesi in Bolaang Mongondow. The transfer of cyanide vat leach technology to small scale miners who have been using mercury amalgamation to recover gold is another example of a successful transfer of technology. There are now over 150 cyanide leaching operations in North Sulawesi with more under construction. The project has used this as a pilot project to refine the process before promoting this technology to other gold mining areas. Small-scale gold processors each lose about 1 liter of mercury to the environment each month. The conversion from mercury amalgamation to cyanide leaching will greatly reduce the cumulative environmental impacts of mercury discharges to the local river systems and air in the areas around Manado and Kotamobagu, North Sulawesi.
- A field trip was made to Pasaman, West Sumatra to evaluate the extent of small scale gold mining in that county. West Sumatra is one of the priority provinces of USAID/Indonesia under its new strategy for Higher Quality Basic Human Services. DOI-ITAP was asked to expand its technical assistance program to USAID priority areas in support of watershed management activities designed to improve the quality and quantity of water available for Indonesia's poor. Small scale gold mining adversely affects the quality of water available in watersheds where they process gold using mercury amalgamation. A presentation on the alternatives to mercury amalgamation was also made to West Sumatra Provincial Government managers and staff of the mining and environmental agencies.

Success Story

The project has convinced small scale gold miners to convert from mercury amalgamation processing to cyanide vat leaching, and have continued to work with the miners to help them improve their process efficiency. Approximately 200 operations have converted to cyanide vat processing; the amount of mercury not released to the environment as a result is already more than 100 tons per year. The project has also provided classes to local officials on reviewing AMDAL documents for small scale gold mining, and consulted on strategies to bring non-permitted operations into compliance with regulations.

- North Sulawesi, like other gold producing provinces in Indonesia, has a large number of small scale miners working shallow gold deposits and processing the gold using mercury. The mercury lost to the environment is in tons per year and there is general interest in finding an acceptable processing alternative. The project director visited North Sulawesi several times to consult with local government, NGO's and the miners. A recommendation was made to convert to cyanide vat leaching which is much more efficient in recovering gold and is far more environmentally friendly. This recommendation was taken and there are now 38 vat leach operations recovering five times the gold over gold recovered from mercury amalgamation. The provincial Bapedalda (Environmental Agency) is very pleased with the rate of conversion and is encouraging more to follow suit.

- The Project Director served as team member to develop a Decree for effluent standards for gold and copper mining operations. Meetings were held in April and May 2004. Consensus was reached at the final meeting for the standards and language of the Decree. The Ministry of Environment Decree 2002/2004 for copper and gold mining effluent standards was promulgated in October 2004.
- Training and technical consultation for local government in Manado and Tatelu, North Sulawesi on processing alternatives for small scale gold miners using mercury (Dr. Harry Posey, CO, Division of Minerals and Geology and Mike Long, Shell Oil). Two 1-day workshops titled Mineral Recovery concerning the use of cyanide vat leaching to recover gold versus mercury amalgamation were held April 20-21, 2004. One day of on site consultation was provided for small scale gold processors to improve efficiencies of existing cyanide vat leach operations. A third workshop was held April 26-27, 2004 in Bandung, W. Java for the Center for Geology and the Center for Mineral and Coal Technology.
- An additional workshop was held in June 2004 on small scale gold mining in North Sulawesi. Emphasis was placed on the dangers of mercury and the advantages of process conversion from mercury amalgamation to cyanide leaching. A broad spectrum of local government officials, police and military were present. A field visit to Bolaang Mongondow, 4-hours from Manado, where there are over 3500 trommel units processing gold and losing an estimated 300 tons of mercury to the environment each year. This area will continue to receive attention from project management.
- The project has been working with small- scale miners and the BAPEDALDA (EPA Equivalent) in Manado, North Sulawesi to reduce mercury by improving gold recovery practices using cyanide as an alternative to mercury amalgamation. A workshop was held in April 2004 to provide technical and practical process information to the local government and to the small-scale gold processors. A small-scale cyanide vat leach process had been suggested a year earlier and the April workshop provided practical assistance to the operators who adopted this change.
- In June 2004, a second workshop was presented in the same area where a much larger group of gold processors attended. Those who converted to the cyanide process, about 40, were looking for help in fine-tuning their process. Gold processors were reporting gold recovery rates up to five times greater from their new cyanide vat leach systems than with mercury which sparked a rush to change. Reports from nearby areas, Gorontalo and Bolaang Mongondow, showed the vat leach technology was spreading quickly and a site visit to Bolaang Mongondow was arranged. Cyanide vats were being constructed at the two sites we visited and reports from the head of the mining agency indicated there were about 13 new or under construction cyanide vats in use.
- This vat leach technology is similar to the gold recovery process used by major gold mining companies around the world. The project just scaled it down to fit the small-scale production. Cyanide has its detractors since it is toxic and can easily damage aquatic life and kill people if improperly handled. The trade off seemed worth the risk and now there

are over 60 vats producing gold. Each processor who converts to cyanide takes 1 liter of mercury/month out of the amount polluting the Manado area.

Success Story

DOI has provided technical assistance to the Indonesian Ministry of Environment on developing water quality standards for the mining industry. Ministerial Decrees, KepMLH/113/2003 on coal mining effluent limits and KepMLH 2002/2004 on copper and gold mining effluent limits were signed and implemented in July 2003 and October 2004 respectively. The decrees set standards for discharges from both mining areas and preparation/milling plants. The standards are similar to those adopted in the United States for pH and metals but are higher for Total Suspended Solids. As these new standards are enforced the water quality leaving mine sites will be greatly improved.

Ministry of Environment Decree 2002/2004 concerning Effluent Standards for Copper and Gold Mining was promulgated in October 2004. The Project assisted the Ministry of environment develop these new standards and is now assisting them develop a permit process for waste water discharge permits to implement these new standards.

Coal Fire Management

- Coal fire management continues to be an important topic in Indonesia. There are still 164 coal fires burning in East Kalimantan. Coal fire training in early 2003 was given to 26 participants in South Sumatra. Three coal fires were extinguished this period by the county mining agency, in Muara Enim, South Sumatra using their budget. Informal coal fire training was continued during with geology instructors from MEMR Pusat Geology and staff from the city government of Balikpapan. Although coal fire project funds are exhausted, there continue to be requests for technical assistance and informal training.
- An inventory of coal fires was conducted in a forest concession area adjacent to Sungai Wain Nature Preserve where 76 coal fires were extinguished during DOI-ITAP's Coal Fire Project. Eleven new coal fires were located in this area. Additional coal fires have been reported in South Sumatra bringing the inventory of active coal fires to 180. The project continues to monitor the coal fire situation and provides technical support to local government agencies conducting inventories and suppression projects.

Higher Quality Basic Human Services

OSM was funded (\$200K) to expand its technical assistance program to priority areas in support of watershed management activities designed to improve the quality and quantity of water available for Indonesia's poor under USAID/Indonesia's new strategy for Higher Quality Basic Human Services. Priority areas included East and West Java, West and North Sumatra, South Sulawesi, and West Kalimantan. The OSM project conducted a range of training classes during the last quarter in these priority areas to support the new initiative.

Two new classes were developed to assist local governments better manage watersheds so they could have both development and a reliable supply of clean water downstream. The Higher Quality Basic Human Services initiative to provide clean water to people depends, in part, on managing activities in the watersheds where drinking water originates. Two one-week classes in watershed management were prepared and delivered in Bandung, West Java and Surabaya, East Java for local and provincial government officials with responsibility for permitting a variety of land use activities in watersheds. Most development decisions in Indonesia seem oblivious to water quality and quantity impacts and those impacts are beginning to be felt by downstream users. Two US based hydrologists from OSM were the primary instructors but Indonesian co-instructors were also trained so these classes can be taught in the future without back-up assistance from OSM.

Geologic Considerations for Placing and Constructing Landfills

One activity under the Higher Quality Basic Services initiative was the development of a class in cooperation with the Ministry of Energy and Mineral Resources Agency for Education and Training's Geology Center, on the geologic considerations for site selection, construction, and management of landfills. Most landfills in Indonesia are open dumps placed on hillsides so gravity aids in the dispersal of material. Landfills are a significant polluter of watersheds in Indonesia and there were two catastrophic failures of dumps in West Java that killed nearly 150 people.

Two 10-day training courses were presented to local government managers in Surabaya, East Java and Bandung, West Java. These courses were taught by instructors from the Geology Center and ITB (Institute Technical Bandung) one of Indonesia's best universities so the capacity to teach these classes remains in Indonesia.

Success Story

Following the regional inspector training, the county administrator swore in his mine inspectors and provided them with new uniforms. They then began conducting their own independent mine inspections.

Presentations

- *The Project Director made three presentations during the period June-September 2005. One was to small scale gold miners and local government officials in Padang, West Sumatra on the benefits of changing from mercury amalgamation to cyanide vat leaching to recover gold. The cyanide vat leach technology has rapidly spread through the small scale gold mining community in 3 years from a single experimental vat in North Sulawesi to well over 160 operating systems. This vat leach technology is a scaled down version of technology used by the main stream gold mining industry all over the world because of its efficiency and superior gold recovery.*
- *The second presentation was a one-day class on environmental auditing for mining operations at the Training and Education Center for Underground Mines in Sawah*

Lunto, W. Sumatra. Environmental auditing is becoming popular with companies who are trying to assess their overall compliance and performance meeting environmental regulations. The audience was an equal mixture of local government and mining company people which led to a lively discussion.

- *The third presentation was made to Government Audit Agency (BPK) officials on environmental audits. Senior officials were trying to determine whether this agency should begin conducting environmental audits as part of their portfolio. After the meeting, the agency decided that this was not really a type of audit they could conduct without a major shift in emphasis and the addition of trained staff. The Project Director did suggest that they consider conducting mine production audits as part of their examination of both private and state run mining companies.*
- *The Project Director made a formal presentation to a national seminar on selecting post-mining land use and reclaiming mined lands. There were many questions and good discussion following the presentation. Indonesia continues to wrestle with selecting a post mining land use before mining actually begins. There is a growing concern among local governments over the condition of mined lands after closure so momentum is building for action to require more descriptive reclamation plans and the development of specific standards for success.*
- *The Project Director presented an invited paper at the annual meeting of the Geological Society of America (GSA) about Coal Fires in Indonesia. These papers will become part of a GSA book on Coal Fires.*

Project Closure

On September 23, 2005, OSM closed its project office in Jakarta, Indonesia. The four project employees were released and compensated according to Embassy employment procedures and the Project Director relocated to the Washington, DC area on September 27th. OSM's Indonesian technical employee, Asep Mulyana, was hired by ESP, the USAID contractor working on USAID/Indonesia's new strategy for Higher Quality Basic Human Services, so some of the DOI-ITAP project expertise will be carried on and contacts retained. Project assets were transferred to USAID Jakarta and to the Ministry of Energy and Mineral Resources after consultation with USAID Jakarta Program Managers.

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

A final close out report will be prepared during the next reporting period.

ADDITIONAL INFORMATION

Program descriptions, activity reports, assessments and press coverage are available upon request.

JORDAN

Cultural Resource Management

SUMMARY OF ASSISTANCE

Petra, the ancient capital of the Nabataeans, was inscribed on the World Heritage List in 1985. Petra is an archaeologically fascinating site, world famous for its magnificent building facades carved into beautiful stone canyon walls.

Inhabited since Neolithic times, Petra entered its golden age when the Nabataeans chose this site to be the royal seat of King Aretas in the second century BC. From that time onwards, for several centuries, Petra played a dominant role, flourishing as an economic and religious center and as a sacred funerary city. Petra was once a major crossroads for the caravan routes that led to Sinai, the Red Sea, the Dead Sea, Egypt and Syria.

The integrity and conservation of the site are threatened by an increased flow of tourists to the site and the sideline activities this tourism engenders. DOI-ITAP is providing technical assistance to improve the management of the site.

FUNDING

To be determined

RESULTS TO DATE

The U.S. Department of the Interior and The Kingdom of Jordan have signed a Memorandum of Understanding to facilitate technical support and training to improve the institutional and organizational structure of the Petra Management Unit, site management and protection of the resources at Petra Archaeological Park and other protected sites in Jordan, and the skills of Park staff (Jan 2003).

SIGNIFICANT PROBLEMS OR DELAYS

The provision of DOI technical assistance has been postponed until the security situation improves.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

None

MOROCCO

Rural Tourism and Visitor Management

SUMMARY OF ASSISTANCE

Over the next 5-years, the Moroccan government plans to quintuple its tourism to ten million visitors per year to create jobs for local communities and develop the national economy. The flora, fauna, geology, scenery, folklore, production of local specialties such as argan oil and honey, and delicious cuisine are all attractions for visitors to rural areas. It is important to manage Morocco's natural and cultural resources in a way that minimizes socio-cultural and environmental impacts, to maintain a high quality visitor experience. At the same time, tourists need information about the people and places they are visiting, and infrastructure to facilitate sightseeing and recreation.

Three years ago USAID started the Morocco Rural Tourism Project (MRT) to provide assistance to the Ministry of Tourism. By the end of its third year, MRT enabled the new rural tourism department of the Ministry to foster strong relationships among the many diverse national and local government agencies, associations and other organizations engaged in the development of rural tourism in Morocco. With MRT assistance, the Ministry of Tourism coordinated the efforts of these groups to develop and market tourist attractions in three targeted regions in Morocco, known as Pays d'Accueil Touristique (PATs) – Immouzer Ida Outanane, in the south, Ifrane in the Middle Atlas Mountains, and Chefchaouen in the north. In early 2005, DOI-ITAP was invited to partner with the MRT contractor Chemonics International Inc. to provide visitor management capacity building for these regions.

FUNDING

USAID/Morocco in FY '05

RESULTS TO DATE (FY '05)

Assessment: *A team of two DOI visitor management experts traveled to Morocco to evaluate recommended capacity building activities and develop a proposed work plan for DOI to provide on-the-ground technical assistance (March 2005).*

Visitor Facilities Design: *With logistical support from Chemonics, a team of three DOI experts provided a workshop for Moroccan counterparts on the process for developing site designs. In conjunction with the workshop, the team designed scenic overlooks, rest areas, a campground, and a trail for pilot locations in Ifrane and Immouzer PATs, and provided a series of recommendations for construction and management of the sites (June-July 2005).*

Visitor Education and Information: *With logistical support from Chemonics, a team of three DOI experts provided a workshop for Moroccan counterparts on visitor education, information and interpretation. In conjunction with the workshop, the team designed display panels and a floor plan for a visitor information center in Ifrane PAT, display panels and an*

interpretive plan for a women's argan oil cooperative in Immouzer PAT, signs for Ifrane and Immouzer PATs, and provided a series of recommendations for visitor education, information and interpretation in Morocco (July 2005).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

None - Project Completed.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in Morocco are available upon request.

NILE BASIN

Collaborative Water Resource Management

SUMMARY OF ASSISTANCE

The Nile Equatorial Lakes sub-basin is a region whose water resources include one of the world's great complexes of lakes, wetlands, and rivers. Relationships among various countries have been strained for decades -- often over Nile River water-sharing issues. Nearly all the riparian states suffer from domestic conflict and regime instability. The water resources of this region are central to the sustenance of unique natural ecosystems, and to the support of its people, and there is great potential for these resources to underpin strong economic growth in the region.

The ten states that share the waters of the Nile Basin have created an organization in Entebbe, Uganda, to coordinate their efforts, called the Nile Basin Initiative. They are also establishing sub-basin coordinating bodies and project implementation offices. The staffs of these institutions require training in diverse disciplines and familiarization with the work of similar bodies elsewhere in the world. To that end, DOI-ITAP hosted a study tour to various national and international institutions in the U.S. for Nile Basin Initiative staff and members, and is providing continuing technical assistance.

FUNDING

State Department, Oceans, Environment and Science Initiative in FY '03

RESULTS TO DATE

Twelve members of the Nile Basin Initiative Equatorial Lakes Subsidiary Action Programme (NELSAP) participated in a 2-week water resource management study tour of the U.S. The study tour began in the Washington, DC area before moving west to follow the Columbia River from the Grand Coulee Dam to one of the River's tributaries near Corvallis, Oregon. Two themes were addressed, in the context of water resource management: institution building, and developing interdisciplinary awareness and coordination. Through seminars and site visits, the study tour group learned how a variety of water resource management and associated organizations operate on a daily basis, including:

- International: the International Boundary and Water Commission, the International Joint Commission, and the World Bank
- Federal: the U.S. Bureau of Reclamation, the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the National Invasive Species Council, the Bureau of Indian Affairs
- Federal/Private: Bonneville Power Administration
- State and Local: Potomac River Basin Commission, OR watershed units
- University Researchers: Oregon State University

During these meetings, study tour participants analyzed case studies of water resource management issues for several transboundary rivers in the U.S. Then the group participated in an in-depth study of the various components of water resource management along the Columbia River, including: river and dam operations, hydropower, flood control, fisheries, indigenous rights, recreation, agriculture/irrigation, aquatic invasive species, international benefits sharing, and transboundary management. DOI submitted a status report to State Department on the study tour.

Significant Problems or Delays

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

DOI-ITAP will participate in the 3rd Donors & Partners Meeting of the Nile Basin Initiative (NBI) in The Hague, October 24-25, 2005. DOI-ITAP, a recognized partner to the NBI, will participate in the meetings to strengthen the U.S. Government's involvement in the NBI and its sub-basin coordinating bodies. DOI-ITAP will also meet with donors and partners to discuss ways the Department can continue its program of technical assistance to the NBI.

ADDITIONAL INFORMATION

Reports describing the results of DOI technical assistance in the Nile Basin will be available upon request.

PERU

Economics of Protected Area Management

SUMMARY OF ASSISTANCE

With its coastal deserts, high Andes, and Amazonian forests, Peru is one of the world's most environmentally diverse nations. Because the habitats are so diverse, the number of floral and faunal species found in Peru is very high. For example, there are 25,000 species of flora in Peru --10% of the global total. Peru has an impressive array of fish life (2,000 species), is second in the world for bird life (1,760 species), third for amphibians (315 species) and fourth for mammals (460 species). Peru contains 56 protected areas that total 12.7 percent of the land base for the country, over 40 million acres. Peru's Instituto Nacional de Recursos Naturales (INRENA) is directed to manage Peru's system of protected areas under the Protected Natural Areas Law (No. 26834) of 1997. Because of limited funding and other problems, INRENA lacks many of the institutional capabilities to accomplish its mandate. DOI-ITAP is providing technical assistance to support INRENA in its protected area management efforts, particularly with regard to making the case for an increased budget for INRENA, and generating increased revenue for the protected area system.

FUNDING

USAID/Peru in FY '02

USAID/Peru in FY '03

RESULTS TO DATE

National Economic Information Project

In February, 2005, DOI initiated a project to assist INRENA in the development and completion of a technical document that estimates the value of the benefits provided by SINANPE (National System of Natural Protected Areas for the State) to the national economy of Peru. The objective is to determine how much the SINANPE system of protected areas actually contributes to the national economy and presenting the findings in a document format to justify increased funding for SINANPE. The activity is being coordinated by a DOI specialist and an economist from Ohio State University. The final document in English and Spanish is expected to be completed in December 2005.

Park Fees and Concessions

A DOI team of park concessions specialists traveled to Peru to review the concessions and entrance fee program for INRENA and to develop options for implementing a new fee pilot project at Paracas National Reserve, a large, popular marine park 3 hours south of Lima. The team focused on the level of visitor services offered at the Reserve in conjunction with what Peruvian law allows in order to recommend adjustments to the entrance fee currently in effect at Paracas. Although Peruvian law currently prohibits differentiated entrance fees (higher entrance fee for foreign vs. national visitors) and the visitor services offered are minimal, the team presented to the Peruvian government an array of options for collecting

more dollars from foreign visitors through concession operations and new fee strategies within the park. A final document in English and Spanish was provided to INRENA in January 2005.

Fees for Environmental Services

DOI sent a team to initiate planning of a payment for environmental services activity in Yanachaga Chimellen National Park (July 2005).

Protected Area Management Training

DOI sent one participant from Peru to the 5th annual Wildlands Management in the Tropics course in Costa Rica (Oct/Nov 2003).

Project Planning

A multi-disciplinary team of DOI and USFS (an expert in each: economic natural resource cost-benefits analyses, natural resource law enforcement, and general park and forestry management) provided technical assistance at the headquarters level of the Peru's Instituto Nacional de Recursos Naturales (INRENA). The team developed a CY 2004 workplan and recommendations for technical assistance through CY 2006, that would work primarily to reduce the incidence of illegal logging and wildlife extraction in Peru's protected areas (Nov/Dec 2003).

A DOI team traveled to Peru to assess the current state of INRENA management activities as well as the economic and socio-cultural impediments to managing animal and plant communities in Peru's protected areas. This information was used to compile a 4-year technical assistance plan considering the scope of land use and resource issues in terms of what DOI and its' partners could provide to Peru (Nov 2002).

SIGNIFICANT PROBLEMS OR DELAYS

Reorganization at INRENA has hampered progress on implementation. In 2004 USAID/Peru refocused DOI efforts to concentrate on the management of protected areas in Peru. No further DOI technical assistance is expected in the areas of forestry management and forestry concessions.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

October 2005: DOI-ITAP and INRENA select Peruvian graduate student and advisor to implement the field component of the activity. INRENA has already recruited for these positions.

DOI-ITAP and INRENA:

- *Identify the changes(s) in quantity or quality to be valued*
- *Identify whose values are to be estimated*

It has already been determined that the data collection mode will be through personal interviews with users.

November 2005: Tom Brown conducts site visit to Yanachaga/Oxapampa with selected graduate student and advisor. During the visit, work group conducts the following:

- *Choose a sample size*
- *Develop the information component of the survey instrument (This includes the following: describe the item to be valued, explain the method of provision, select a payment vehicle, select a decision rule, select a time frame of payment)*
- *Develop the contingent-valuation questionnaire (This includes the following: select a response format, allow for people to respond with values of \$0, develop questions to screen for protest and other types of misleading responses)*
- *Develop draft outline for the one-day workshop to occur in Oxapampa. Work directly with INRENA regional and Yanachaga park staff in completing this process and identifying a tentative date and location in Oxapampa for implementation.*

December 2005 – February 2006: Graduate student and advisor work on finalizing the contingent-valuation questionnaire by completing the following:

- *Develop focus groups*
- *Test questionnaire with small group (determine if questions make sense)*
- *During this time, INRENA and DOI-ITAP specialist develop auxiliary questions for inclusion in the survey instrument (This includes the following: develop questions that provide covariates for statistical analyses of valuation responses, develop questions that help to assess the validity of valuation responses)*

ADDITIONAL INFORMATION

An assessment report is available upon request.

PHILIPPINES

Environmental Law Enforcement

SUMMARY OF ASSISTANCE

Illegal and destructive fishing and severe over fishing threaten not only biodiversity but also food security and the productivity of the natural resource base in the Philippines. Illegal logging and open dumping of solid, toxic and hazardous wastes threaten livelihoods, lives and biodiversity. The goal of USAID/Philippines is to strengthen the ability of national and local government units and communities to address these critical threats to the country's coastal and terrestrial resources and promote good governance – transparency and accountability – in enforcing environmental laws. DOI-ITAP is embarking on a new program of technical assistance in the Philippines focused on providing technical assistance and training to increase the capacity of local and national environmental law enforcement bodies in the Philippines. This work builds on previous law enforcement training conducted by DOI-ITAP in the Philippines.

FUNDING

USAID/Philippines in FY '05
USAID/Philippines in FY '04
EAPEI in FY '99

RESULTS TO DATE

Program Management

A DOI team consisting of the DOI-ITAP Project Manager and two Law Enforcement Special Agents conducted an "Environmental Law Enforcement Needs Assessment" within the Philippines. The objective of the assessment was to determine how best DOI can assist the various Philippine government agencies and non-governmental organizations to improve their law enforcement capabilities to combat illegal natural resource extraction and degradation of its coastal marine and upland timber resources. This team met with numerous Philippine and US entities, including the US Embassy, and met with key law enforcers from the Ministry to the village level. While in country, the Philippine press published a news article outlining the intent of having DOI assist the Philippine government over the next 3 years. DOI will begin its program of activities by focusing on high-level workshops that will demonstrate U.S. commitment to the Philippines Government in its environmental law enforcement efforts and identify opportunities for improved interagency coordination and cooperation within the country (March 2005).

Marine Law Enforcement

Marine Law Enforcement Assessment: A DOI team completed a needs assessment and curriculum design assignment in the Philippines, to prepare for skills training in marine law

enforcement for Philippine governmental agencies and non governmental organizations with jurisdiction and responsibility in protecting the marine environment (Dec 1999).

Training: A DOI team of two marine law enforcement specialists conducted a 2-week training in basic marine boating and law enforcement skills in Batangas Province, Philippines. The training included participants from local “Bantay Dagats,” or local marine patrols, and NGO representatives who have responsibilities in marine law enforcement in the Philippines near shore waters and marine protected areas. In addition to the DOI experts, experts from several Philippine government agencies and NGOs taught sessions of the training. The sessions included training in basic patrol and arrest techniques, fish identification, local marine law, interagency coordination and basic boating and safety (Feb/March 2000).

Success Story

The World Wildlife Fund in the Philippines reported that the local Bantay Dagat (sea watch patrol teams) were very pleased with the DOI training in 2000:

“The training has greatly helped in improving the capacities of the local Bantay Dagat ... They spoke highly of the hands-on training (activities) such as those on board and search, charting and navigation, and apprehension. One key highlight of the Bantay Dagat operations in Mabini and Tingloy...is that there are no more commercial vessels encroaching in the municipal waters of Mabini and Tingloy. As a result, the municipal fishermen are able to catch more fish (both in terms of quantity and species of fish) and ... do not need to fish too far.”

DOI conducted follow-up law enforcement training in February 2004. The trainees were drawn from several local and national jurisdictions and the training focused on marine law enforcement.

SIGNIFICANT PROBLEMS OR DELAYS

The recent unstable political situation in the Philippines has caused delays in some of the planned activities, pushing them back an estimated 6 months.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

In November 2005, DOI plans to conduct a Train-the-Trainer law enforcement training and technical assistance consult at a site to be determined.

Over the next few months, DOI will work with USAID and the Government of the Philippines (GOP) to sign a Memorandum of Understanding that underscores the U.S. Government commitment to working with and assisting the GOP with its coastal and forest resource law enforcement.

ADDITIONAL INFORMATION

More detailed reports describing the results of DOI technical assistance in the Philippines are available upon request.

TANZANIA

Protected Area Management

SUMMARY OF ASSISTANCE

Since 1997, DOI-ITAP has partnered with USAID/Tanzania to provide technical assistance to the Government of Tanzania (GOT). The objective of this partnership is to sustainably improve natural resources management in a number of Tanzania's protected areas, including national parks, game reserves, and marine protected areas. This assistance supported USAID/Tanzania's 1997-2003 Country Strategic Plan (extended through 2005), within the mission's Environment and Natural Resources Strategic Objective.

Over the 8 years, DOI-ITAP has provided a wide array of technical assistance and training, focusing on such areas as:

- wildlife anti-poaching (e.g., patrolling strategies, surveillance, crime scene investigation, case preparation, personal safety, and emergency response),
- visitor services infrastructure design, management, and operation;
- visitor interpretation and education;
- fire management;
- roads design and maintenance;
- radio systems design and installation;
- patrol boat delivery and training;
- general assessments of land and marine parks and game reserves;
- park signs design and construction; and
- park management study tours for GOT managers to DOI sites in the United States (e.g., national parks, national seashores, national coral reef monuments, national wildlife refuges).

Further, DOI-ITAP has delivered a variety of equipment critical to the effective management of protected areas, including: radios, park guard uniforms, boots, camping gear, binoculars, cameras, compasses, maps, GPS units, medical kits, and basic fire fighting tools.

Geographically, the majority of DOI-ITAP's work has been conducted in conjunction with the Tanzania National Parks Authority (TANAPA) and the African Wildlife Foundation (an NGO) to improve management in the Tarangire-Lake Manyara Complex in northern Tanzania. DOI-ITAP has also more recently worked with the Tanzania Wildlife Division and Africare (an NGO) to improve natural resource law enforcement in the Ugalla Game Reserve in west-central Tanzania. And finally, DOI-ITAP has worked with the Tanzania Coastal Management Partnership to help improve the protection of the Tanzania's coastal resources.

FUNDING

USAID/Tanzania in FY '04
USAID/Tanzania in FY '03
USAID/Tanzania in FY '01

No new funding from USAID/Tanzania in FY '99 or FY '00
USAID/Tanzania in FY '98
USAID/Tanzania in FY '97

RESULTS TO DATE

Anti-Poaching (Law Enforcement)

LE Training of Local Community Scouts and Patrol Boat Delivery:

A team of four DOI law enforcement agents trained a team of Bagamoyo district-level coastal scouts on basic marine law enforcement techniques and small-boat operation, maintenance and safety. In conjunction with the training, ITAP purchased and delivered a 14-foot fiberglass patrol boat, motor, and boat accessories to the district, which will be using them for near-shore law enforcement patrolling and response in the surrounding marine protected areas. The District Commissioner of Bagamoyo and Member of Parliament for Bagamoyo were highly impressed with the results of the training course and the DOI trainers. The Acting Ambassador and the USAID Mission Director presided over the boat transfer and graduation ceremony and were very pleased with the results of the training. The graduation ceremony was also covered favorably by the Tanzanian press (Feb 2004).

LE Training of Marine Protected Area Staff:

Three DOI staff completed a 2-week law enforcement training to multi-jurisdictional marine protected areas staff in Dar Es Salaam, Tanzania -- the first of its kind. USAID/Tanzania and its partners indicated that this is the start of a long term protection program for Tanzania's Coastal Resources (June 2003).

Success Story

As part of the June 2003 marine law enforcement training, the DOI trainers and Tanzanian trainees conducted surprise inspections of three local seashell dealers and seized over 150 kilos of illegal sea coral and parts of five sea turtles. It was reported in the local news as the largest seizure of illegal marine products in Tanzania's history.

Ugalla Game Reserve:

Village Game Scouts Law Enforcement Training: DOI-ITAP provided the tuition for 30 local village game scouts to attend a government certified natural resource law enforcement training program in an effort to strengthen the management of Tanzania's protected areas and wildlife. Through this training, the 30 village game scouts also received uniforms, boots, and some basic tools (Sept 2005).

Follow-up Assessment of Previous LE Training and Radio System Installed at Ugalla Game Reserve; Basic Equipment Delivery at Ugalla Game Reserve; and Initial Assessment of the LE Capabilities of two Wildlife Management Areas Two DOI law enforcement experts conducted a natural resource law enforcement assessment of the locally governed Uyumu and

Ipole Wildlife Management Areas (WMAs) surrounding the Ugalla Game Reserve. The results of the assessment will be used to develop a workplan and curriculum for future law enforcement technical assistance DOI-ITAP provides to the Government of Tanzania). In addition, the DOI-ITAP team conducted an assessment of the effectiveness of previous DOI law enforcement training at the Ugalla Game Reserve and delivered \$2150 worth of equipment to the reserve, which included binoculars, mosquito netting, and GPS units (Sept 2005).

Thirty-five Tanzanian Wildlife Division game scouts were trained by five DOI law enforcement experts on anti-poaching techniques, case preparation, personal safety and emergency response, use of compasses and Global Positioning System devices, among other topics through a combination of class work and field exercises. This effort represents the first major training event provided strictly to the Wildlife Division, and it was completed at the Ugalla Game Reserve, a Wildlife Division managed protected area in the central region of the country (Sept/Oct 2002).

Tarangire and Lake Manyara National Parks:

DOI law enforcement experts have provided a series of law enforcement training sessions at Tarangire and Lake Manyara National Parks. The topics have included: investigation and arrest methods, land navigation using compass and GPS, incident report writing, and basic patrol design. DOI teams helped design standardized reporting forms for anti-poaching teams. Each successive training builds on the results and findings of the previous training (Oct 1998, Feb 1999, Feb 2000, March 2002).

Anti-Poaching Equipment:

DOI has donated approximately \$60,000 in law-enforcement related equipment to rangers in Tarangire and Lake Manyara National Parks and Ugalla Game Reserve. The equipment has included camping gear, binoculars, compasses, maps, and GPS units. During repeat visits to the sites, the DOI teams assess the use and maintenance of the equipment.

Communications Systems

Ugalla Game Reserve Radio System:

A DOI radio expert delivered and installed a high frequency radio communication system to the Wildlife Division (WD) of the Ministry of Natural Resources and Tourism at the Ugalla Game Reserve. This communication system will allow the Wildlife Division rangers to conduct both foot and vehicle patrols, as well as search and rescue operations, in and around the Reserve. The donated system consisted of: (2) Vertex Standard base station radios, (4) high frequency (HF) Vertex Standard mobile radios and (12) very high frequency (VHF) ICOM portable radios valued at \$25,000. The DOI radio expert was also able to train key WD staff on the use and maintenance of the radios (Jan 2005).

A DOI radio expert conducted an extensive assessment at this Reserve to determine the best radio system to purchase and install. This will be the first such system to exist, allowing Ugalla staff to communicate with other government agencies, including TANAPA, for improved collaboration (Feb 2004).

Roads

Training

A DOI team worked with TANAPA road staff to complete the design and construction of a new access road and parking lot to newly constructed visitor centers at both Tarangire and Lake Manyara National Parks. The DOI team combined this task with on-the-job training for park staff, emphasizing the environmental impact component of these tasks. The DOI team also provided the park staff with inexpensive surveying equipment that was formerly unavailable, significantly improving their construction capabilities (June 2003).

A series of DOI teams have trained TANAPA staff on road construction and repair and the operation and maintenance of roads equipment. Skills trained include grading, crowning of roads, establishment of shoulders, sensitivity to water passage, and use of equipment in different soil types. Through field exercises critical sections of the roads in Tarangire National Park have been repaired (Feb/March 1998, June 2000, Jan 2001, Feb/March 2002).

Assessments of Road Conditions:

A DOI team performed an assessment of the road program in Serengeti National Park and provided recommendations for improvement of that program (Feb/March 2002).

A DOI roads engineer participated with a team of USAID contractors and specialists in drafting a programmatic environmental assessment of proposed roads projects in Tarangire and Lake Manyara National Parks. The DOI engineer worked intensively for one month with a team of experts, and at the beginning of March 2000, produced a draft project environmental assessment for review by USAID and the Tanzanian government (Feb 2000).

The road conditions at Tarangire National Park were comprehensively assessed in light of damage due to heavy rains (Feb/March 1998).

Fire

Fire Management Planning: A team of DOI fire management experts worked with TANAPA staff to produce a fire management plan for Tarangire National Park (Oct 1999, March 2002).

Success Story

A DOI fire management team worked with TANAPA management specialists to draft the first Fire Management Plan for Tarangire National Park. TANAPA has indicated to DOI that this plan has been incorporated into the General Management Plan for both Tarangire and Lake Manyara National Parks.

Training

Based on the DOI assessment of the capacity of Tarangire and Lake Manyara National Parks to suppress wildfires and manage fire in the Parks for ecological objectives, multi-bureau DOI fire management teams have conducted training for Tarangire and Lake Manyara staff in fire suppression skills. DOI contributed basic fire fighting tools to the parks, and the training incorporated both lecture and field exercise components, to build capacity in the parks both to fight wildfires and to manage controlled burns (Jan 1999, Sept 1999, March 2002).

Park Infrastructure

Signs: DOI provided Tarangire and Lake Manyara National Parks technical assistance on the design and development of park signage (Oct 2003).

Facility Design Assistance: A design for the Lake Manyara visitor center was developed (July-Aug 1999).

Park Interpretation and Education

Visitor Services: A DOI team conducted a 2-week course on visitor services and interpretive guide training at Lake Manyara and Tarangire National Parks. The DOI team trained a total of eight Tanzanian park staff from four national parks and two AWF staff members in a number of interpretive principles and techniques, including: core concepts of interpretation, fundamentals of interpretive planning, developing theme statements, understanding the learning styles of a variety of audiences, roving interpretation, brochure development, visitor center operation and management, interpretive guide training for guided walks, and environmental education (March 2005).

Interpretation Workshop: A DOI team consisting of an architect, landscape architect, and interpretive specialist, worked with TANAPA in an AWF-sponsored workshop on designs for visitor services in Tarangire and Lake Manyara National Parks. The workshop focused on establishing criteria for approving design concepts for a new visitor center, signage in the parks, and other park infrastructure ideas needed to improve the park experience for visitors (July/Aug 1999).

Protected Area Management

Study Tour to Four DOI Sites: At the request of USAID Tanzania and with full funding from the Tanzanian government, DOI led three Tanzanian Park Superintendents and the Ecology Chief for the Tanzania government on a 2-week study tour to three U.S. national parks and one wildlife refuge: Lava Beds National Monument, Yellowstone National Park, and Sequoia-Kings Canyon National Park, and Tulelake National Wildlife Refuge. The Tanzanians learned about how the U.S. addresses a variety of challenges and overall visitor management (Sept 2003).

Marine Protected Area Management: DOI completed a 1-week evaluation of the marine resources at select Marine Protected Areas (MPAs) near Dar Es Salaam during the month of June 2003. Based on needs and interest expressed, DOI recommends that the Tanzanian government

adopt an embedment anchor buoy system technology to install replacement demarcation buoys at Mafia Island while conducting an on-the-job training for various Marine Protected Area staff. Another major recommendation is that the government increase its efforts to eliminate drag net fishing, which is destructive to coral reefs (June 2003).

Park Management: A group of Tanzanian resource managers, including the Chief Park Wardens of Tarangire and Lake Manyara National Parks, participated in a U.S. study tour designed to highlight management approaches in relevant ecosystems (Oct 1998).

Marine Protected Area Training: A multi-agency group of Tanzanians associated with Tanzanian marine protected areas participated in a study tour to the U.S. where they were trained on marine protected area management. The participants included officials from the newly formed Mafia Island marine reserve, the Bureau of Fisheries, and the University of Dar Es Salaam. Participants were introduced to a variety of marine protected area management issues and practices, including visitor services, conservation program management, budgeting, law enforcement and facilities management. Participants were encouraged to discuss links where practices in the U.S. could be adopted for Tanzanian programs (July/Aug 1999).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

USAID/Tanzania has recently initiated a new 10-year Country Strategic Plan (2005 – 2014) which includes an Environment and Natural Resources (ENR) Strategic Objective (SO). At the request of USAID/Tanzania, DOI-ITAP has submitted a workplan outlining the technical assistance and capacity-building activities DOI-ITAP can provide to continue its efforts in achieving the Environment and Natural Resources SO Program goals. DOI-ITAP, USAID/Tanzania and its ENR SO partners (i.e., Tanzanian Government agencies and non-governmental organization) will review the workplan and prioritize the activities. Based on the funds available, DOI-ITAP will subsequently implement the activities, in priority order, in coordination with our partners.

ADDITIONAL INFORMATION

More detailed reports describing the results of DOI technical assistance in Tanzania are available upon request.

DOI ITAP Completed Projects

Bangladesh – Arsenic Contamination in Bengal Delta Groundwater:

Arsenic contamination in the shallow groundwater of the Bengal Delta in Bangladesh and West Bengal, India, is now recognized as the most significant water-related health crisis in the world, affecting perhaps as many as 40-60 million people. Presently, the primary solutions to the arsenic problem in Bangladesh and West Bengal are avoidance and treatment. DOI-ITAP worked to understand the geology, hydrology, and geochemistry of the contaminated delta sediments in order to address existing conditions and evaluate water management alternatives, including remediation of contaminated shallow aquifers and development of deeper aquifers.

Bolivia – CITES training for Bolivian agencies:

DOI-ITAP coordinated with USAID/Bolivia to provide CITES training to thirty representatives from relevant Bolivian agencies, including the scientific authority, immigration, national police and Interpol. The 1972 CITES convention addresses threats to plant and animal species where international trade in products from such species is a major factor in their decline. By regulating or prohibiting the trade in these products, CITES provides a powerful tool for species protection. Since the successful training, a committee made up of the armed forces, police and customs was started to properly handle biodiversity issues, with a special emphasis on wildlife.

Brazil – Partner Parks:

A Partner Parks relationship was established in October 1997 as a result of the U.S.-Brazil Presidential summit between Everglades National Park and Brazil's Pantanal National Park. Through this relationship, which was facilitated by DOI-ITAP, officials from both parks visited each other and discussed issues related to park management, law enforcement, public affairs and outreach. The visitors to the Everglades returned to Brazil with a prototype visitor information brochure produced in partnership with Everglades public affairs staff.

Croatia – Ministry of Environmental Protection and Physical Planning:

Croatia is endowed with internationally recognized natural and cultural assets, though after regional conflicts in the early 1990s threatened their economy and security, many of their natural resources were at risk and were not centrally managed. Since 2000 when the current government came into power, Croatia has, for the first time, a Ministry of Environmental Protection and Physical Planning with a Nature Conservation Division that has responsibility for protected areas. DOI-ITAP and the Croatian Ministry of Environmental Protection and Physical Planning signed an Agreement to cooperate on the management of protected areas and the training of their growing professional staff of park managers. In FY '01, a practical training program focused on parks interpretation, education and management was designed in Plitvice and Paklenica National Parks by DOI-ITAP. The program implemented critically needed park programs and provided job skills training and temporary employment (the country's current unemployment rate is 22 percent) to 20 interns of diverse ethnicity from war-affected regions. In FY '02, DOI-ITAP continued its work at three additional parks: Mjlet National Park, Krka National Park, and

Lonjsko polje Nature Reserve. Critical equipment and supplies were also provided to the parks, including audio-visual technology for visitor centers, telescopes, microscopes, binoculars, and natural history field guides. Permanent employment was offered to several interns at the parks.

Ecuador – Galápagos Island Equipment Support:

Conservation of Galápagos National Park remains a major challenge. Conflicts in recent years between fishermen and local conservation authorities have led to fierce rhetoric and violent action, and pressures from powerful stakeholder groups can dominate decision-making at the expense of conservation and responsible resource management. DOI-ITAP signed an Interagency Agreement with USAID/Ecuador to provide technical support for enforcement activities to Galápagos National Park. After completing a law enforcement needs assessment, DOI-ITAP procured a Seawolf amphibious plane (single engine, boat hulled) to support Galápagos law enforcement. Park staff was trained on its operation and maintenance. The *Guadalupe River*, an existing aluminum vessel used for many law enforcement and other purposes by the park staff, was also repaired and retrofitted through a contract facilitated by DOI-ITAP.

Guatemala – Mayan Biosphere Reserve:

The 1.5 million hectare Mayan Biosphere Reserve, located in the northern Department (state) of El Petén, forms the core of the largest tract of intact tropical forests remaining in Meso-America. DOI-ITAP worked closely with the USAID/Guatemala office and the Guatemalan protected area management agency, Consejo Nacional de Areas Protegidas (CONAP), to strengthen protected area management in the Mayan Biosphere Reserve. DOI technical assistance in the Reserve was designed to promote and enhance coordination among managing entities within the Reserve and enhance coordination, interaction, and cooperation between U.S. and Guatemalan protected area staff. DOI technical assistance was also provided in other geographic areas of the country, including the Volcanoes of Atitlán, located in the western highlands, the Polochic-Motagua wildlife area in the eastern lowlands, and the Chisec area in northern Alta Verapaz.

Some key results of DOI-ITAP's work in Guatemala included an evaluation of the management of archaeological resources, the improvement of trails for tourists in Lake Atitlán, as well as the provision of a radio system and weather stations to enhance fire response, law enforcement, and search and rescue missions. DOI-ITAP also provided technical training related to law enforcement, fire prevention and park management.

Honduras – Rio Platano Biosphere:

Part of the largest contiguous rain forest in Central America, the Río Plátano Biosphere Reserve is a World Heritage Site and the first and largest UNESCO-designated Man and the Biosphere Reserve (1980) in Central America. DOI-ITAP worked to protect the indigenous peoples and the biological diversity of the Río Plátano Biosphere Reserve, one of twenty-two international sites on the List of World Heritage in Danger. The main threats to the Reserve are illegal human intrusions and settlement across its western and southern boundaries. DOI-ITAP worked to

promote the conservation of biological diversity by direct actions in the Reserve and by helping the Government of Honduras to establish administrative controls throughout the Reserve.

The key areas of DOI-ITAP's work in Honduras dealt with economic development, tourism, community participation and local capacity building. Key results included assisting the establishment of the first two lending banks in the Reserve, helping to create some initial infrastructure in the Reserve including food, lodging, and restroom facilities as well as developing promotional materials to attract tourists. DOI-ITAP also provided training in endangered species conservation, strategic planning, decision-making, negotiation, conflict resolution, communication and uses of technology to a variety of local community, educational, political and trade organizations in the Reserve.

India – Impacts of Human Activities on Elephants:

DOI-ITAP provided equipment -- primarily radio telemetry equipment for elephants-- to assist in assessing the impact of human activities on ungulate populations in Rajaji-Corbett National Parks. The data gathered was used to identify mini-core areas for protection to maintain the biological integrity of the area, and provide recommendations for eco-restoration and effective management.

Indonesia – Coal Seam Fires:

DOI-ITAP provided technical assistance to the Indonesian Ministry of Energy and Mineral Resources to train them in establishing a long term capability to respond quickly to coal seam fires – particularly those that present a threat to human health and safety, the environment and infrastructure. Before the project started in October 1998, no real effort was being made to put out coal fires. DOI-ITAP helped extinguish fires and trained Indonesian staff on fire-fighting techniques. Fifty-six of the fires DOI-ITAP helped extinguish were in the Sungai Wain Nature Reserve area that is a release area for rehabilitated orangutans. DOI-ITAP taught appropriate personnel methods of suppression that would minimize disruption of the habitat. The Coal Seam Fire Project contributed directly to establishing linkages between the regional Ministry offices (Kanwils) and the provincial and local governments that helped identify and locate coal seam fires.

DOI-ITAP assistance directly prompted a Ministerial Decree on October 7, 1999 that established policy regarding coal fire suppression for the Ministry. The decree clarifies the Ministry's responsibility to extinguish coal fires, assigns the lead for implementing the program to Kanwil offices (regional offices of the Ministry), and authorizes use of the Coal Royalty Fund to support the activities. Because of the new decree and the publicity the project has received locally, coal fires are now being reported in several other provinces and, most important, the Ministry is putting out fires without outside assistance.

Jamaica – Ministry of Land and Environment – Mines and Geology Division:

DOI-ITAP partnered with Jamaica's Ministry of Land and Environment, Mines and Geology Division to provide training to mining inspectors. The Mines and Geology Division functions to

license, monitor and regulate all mining and quarrying activities on the island as well as map the country's geological resources. During the one-week training, the twenty participants were instructed about quarry safety, sedimentation of stream channels, environmental best practices and visual impact.

Kenya – Samburu Heartland:

The Samburu Heartland is located just north of the equator in the rain-shadow of Mt. Kenya. This is one of the few areas in Kenya where wildlife numbers outside parks have increased in recent years. DOI-ITAP assisted the African Wildlife Federation (AWF) in planning for management of this area. DOI-ITAP developed a framework for a general management plan for Samburu Game Reserve and the adjoining area. DOI-ITAP also consulted with stakeholders and advised them on outreach, budgeting and training needs.

Mongolia - Lake Hovsgol National Park:

Lake Hovsgol National Park, part of the Selenge River watershed and a sister lake to Lake Baikal in the Russian Far East, is one of Mongolia's particularly environmentally sensitive areas, and a site with growing tourism interest. The Park boasts several endemic species and also contains two towns, Hatgal in the south and Hanck in the north, which functions as part of the cultural heritage of the Park. At the time of project inception, the Park was inadequately managed and the communities in and around the Park enjoyed few benefits from their proximity to the Park or from the tourists that visited the Park. DOI-ITAP's technical assistance program was designed to build the capacity of Lake Hovsgol National Park staff to better manage the natural resources of the Park, enhance the visitor experience by improving the interpretation program, increase local community involvement in Park decisions and Park-related income generation, and improve staff resources by establishing a visitor fee program.

Some of the successes of this project include the development of a new visitor center, the installation of a solar electricity system, and the set up of a geographic information system (GIS) with digitized maps. This project also benefited local communities through the development of community environmental education centers in all communities around the park, and also improved several local school facilities.

Nepal – Shey Phoksundo National Park:

Shey Phoksundo National Park is Nepal's largest national park covering 355,500 hectares. Located in the western part of the Himalayas, the Park is a biological crossroads of the Himalayan mountain range and the Tibetan plateau. Shey Phoksundo National Park also has a unique cultural heritage with one of the highest and oldest permanent settlements of highland agriculture/pastoralism. At the time of DOI-ITAP project inception, the Park faced threats from unregulated tourism development and unsustainable resource use patterns, driven in part by increasing numbers of porters and outside guides. The program was designed to strengthen environmentally sensitive tourism development, bolster protected area management, build environmental interpretation skills, and encourage sound community-based resource management in and around the Park.

Through the project, DOI-ITAP worked to enhance park-community relations through the launch of a junior ranger program that continues to thrive today as well as through partnerships with various businesses to help them benefit more from tourism in the park. DOI-ITAP trained more than 250 community representatives, civic, religious and business leaders, teachers and natural resource professionals on the concepts of community development in association with protected areas. Over the course of the 4-year program, park staff interacted regularly with the DOI-ITAP team and learned about U.S. standards of ethics, professionalism, and dedication to resource management. The Park staff was provided binoculars, bird books, mammal guides, and bird and mammal checklists to enable them to enhance their job performance. DOI-ITAP also helped develop wildlife monitoring reporting forms for use by Park staff. Working with Park staff, local villagers and religious leaders, DOI-ITAP assisted in the development of the Park's first self-guided nature trail and brochure at Phoksundo Lake.

Philippines – Coral Reef Management Training:

DOI-ITAP provided training in coral reef and marine protected area management to resource professionals in East Asia. The participants in the training were from local “Bantay Dagats” (community-based sea watch patrol teams) and NGO representatives who have responsibilities in marine law enforcement in the Philippines near shore waters and marine protected areas. The sessions included training in basic patrol and arrest techniques, collection, preservation and courtroom presentation of evidence, fish identification, local marine law, interagency coordination and basic boating and safety. The training complemented the World Wildlife Fund program in the Sulu-Sulawesi Eco-Region. The Sulu Sea contains the most biologically diverse coral resource in the world. The training greatly improved the capacities of the local Bantay Dagat. In Mabini and Tingloy, commercial vessels are not encroaching on the municipal waters as much as they did in the past. As a result, the municipal fishermen are able to catch more fish (both in terms of quantity and species of fish) and do not need to fish as far from the coast as in the past. Given the success of the DOI-ITAP training, the State Department sponsored twenty-two Philippine officers to complete a 2-week “Small Craft Marine Law Enforcement Training Program” conducted at the Federal Law Enforcement Training Center in Brunswick, Georgia.

Russia – Endangered Species Conservation:

DOI-ITAP provided technical assistance to regional and national Russian conservation agencies on the conservation of endangered species such as the Siberian (Amur) tiger and their critical habitat. DOI-ITAP provided training to Russian parks and customs stakeholders on CITES implementation related to inspections techniques, permit processing procedures, and the role of the Scientific Authority in support of permit issuance. In support of this training, a manual on CITES implementation and biological identification of wildlife species in the Russian Far East was produced. DOI-ITAP also provided critical supplies to the Primorskiy Krai-based Amba Patrol, including winter hunting boots, night vision binoculars, 35mm film, ranger berets and microcassette recorders. These federal Russian anti-poaching rangers were also participants in a five day seminar on wildlife law enforcement at Ussurisk Zapovednik. A joint report was produced with the Russian State Committee on Environmental Protection and Global Survival Network to the June 1997 CITES Conference of Parties on the positive impact of joint US and

Russian, government and non-governmental, anti-poaching efforts in the conservation of the Siberian tiger.

Russia – Kamchatka Peninsula:

DOI-ITAP worked with the United Nations Development Program (UNDP) to provide technical assistance to selected protected areas in the Kamchatka Peninsula, Russia. Historically, Kamchatka's vast natural resources, including over 2000 species of plants and approximately 10,000 Kamchatka brown bears, was protected by its remoteness, rugged landscape, and later by its strategic military importance. During the recent years of economic reform and societal upheaval, with local populations experiencing economic hardships, and protected area budgets sharply declining, there are significant and increasing threats to Kamchatka's biodiversity and protected areas. In support of UNDP's comprehensive conservation and development efforts in the region, DOI-ITAP provided training in concessions contracting for protected areas in the Kamchatka Peninsula.

South Africa – Richtersveld National Park:

Richtersveld National Park (162,445 hectares) is South Africa's newest park and is the only park in South Africa established through a contractual agreement with local communities. The Nama people work in partnership with the National Parks Board to maintain traditional pastoralism and promote and maintain the unique biodiversity in the Park. DOI-ITAP provided technical assistance on livestock grazing management for the Richtersveld Park staff, National Parks Research Unit scientists, and South African university scientists. In addition, the South Africa National Parks Board Scientific Officer in charge of this project visited the United States and learned about the Bureau of Land Management's policies and management practices regarding rangelands, livestock and vegetation monitoring, remote sensing, and GIS capabilities. Finally, DOI-ITAP provided equipment to help set up a Geographic Information System and a biological monitoring system in the Park.

South Africa – Working for Water:

DOI-ITAP provided assistance to the National Parks Board of South Africa to develop the Working for Water Project at Table Mountain, Cape Town, South Africa. The project promoted methods of curbing the invasion of non-indigenous species into the Table Mountain area of Cape Town. It is estimated that 600 jobs were created by this project. An independent, outside evaluation of this project showed that invasive alien vegetation had effectively been cleared, thereby improving the hydrology and biodiversity of a globally significant conservation area. The project also helped pioneer a model for development in which participants are left empowered to look for work, start a business of their own, or become independent contractors.

South Africa – Southern Africa Environment Web Page:

DOI-ITAP provided technical assistance in launching a Southern Africa Environment website. The site provides extensive and current information on developments in South African environmental law and policy in a format useful to environmental nongovernmental organizations and community-based organizations, provincial and local officials, university and secondary school teachers and students, and the general public. The site was officially launched on June 1, 1996 as a follow up to the U.S.-South Africa Binational Commission. The site may be found at www.saep.org.

South Africa – Water Convention:

DOI-ITAP personnel helped the South African Department of Water and Forestry Affairs develop a strategy to implement major initiatives in water conservation, demand management, and water law with the goal of achieving more equitable distribution of water. In addition, DOI-ITAP supported a workshop on best management practices on water conservation.

Southern Africa – Four Corners:

In the African region called "Four Corners," four countries meet near the Zambezi River and the spectacular Victoria Falls: Zambia, Zimbabwe, Botswana, and Namibia. A series of parks and game reserves dot the landscape, yet the corridors for migrating wildlife to move between them are not secure. With four countries and four sets of laws and policies, coordination among the four countries for management of the watershed and the wildlife is needed. Fostering this coordination and developing a coherent circuit for tourists as well as corridors for wildlife are priorities under the African Wildlife Federation's Four Corners initiative funded by USAID/Regional Center for Southern Africa (RCSA). DOI-ITAP assessed the project and provided recommendations to address project needs.

Uganda – Mgahinga & Bwindi National Parks:

Mgahinga and Bwindi National Parks, in southwestern Uganda, are home to the remaining 600 or so mountain gorillas left in the world. Both parks also have a wide variety of animal and plant life and both offer excellent hiking in spectacular scenery. Both parks are pockets of wilderness surrounded by densely populated farmlands. Most conservation problems are a result of conflicts over the use of resources -- the community and wildland interface. DOI-ITAP provided technical assistance related to tourist infrastructure, park interpretation and fire management to African Wildlife Foundation's (AWF) projects in Mgahinga and Bwindi National Parks.

Uganda – Queen Elizabeth National Park:

An international biosphere reserve, Queen Elizabeth National Park is one of Uganda's oldest and most visited national parks. It encompasses a wide range of species and habitats, including forest, grassland, wooded savanna, volcanic craters, lakeshore, and a wetland that is protected by the Ramsar Convention. DOI-ITAP worked to improve Queen Elizabeth National Park visitor services and to increase revenue generation through tourism. It trained and equipped field personnel within Uganda Wildlife Authority (UWA) and Peace Corps Volunteers to engage in park interpretation and to conduct basic biological inventories and monitor user impacts. DOI-ITAP also worked to promote conservation education programs in targeted communities near selected protected areas, including community-level initiatives which encouraged park-compatible economic development adjacent to Queen Elizabeth National Park. The DOI-ITAP visitor satisfaction survey was the first standardized questionnaire used throughout Uganda's national parks.

CONTACTS

CAMBODIA

Jake Brunner, Conservation International
Chantal Elkin, Conservation International
Tel: (202) 912-1806
Fax: (202) 912-1046
Email: j.brunner@conservation.org
Email: c.elkin@conservation.org

Jeff Brokaw
Email: jbrokaw@usaid.gov

Roberta Hilbruner, CTO
Tel: (202) 712-5688
Fax: (202) 216-3174
Email: rhilbruner@usaid.gov

CAPE VERDE

Richard Calnan, USGS
Tel: 703-648-6206
Fax: 703-648-4227
Email: rcalnan@usgs.gov

Verne Schneider, USGS
Email: vschneider@usgs.gov

Ingrid Verstreitan, USGS
Tel: 703-648-5689
Fax: 703-648-6687
Email: imverstr@usgs.gov

Bruce Overton, MCC
Email: OvertonBL@mcc.gov
Tel: (202) 521-3874

Eugene Philhower, Director
Email: PhilhowerEP@mcc.gov
Tel: (202) 521-3699

CENTRAL AMERICA - Mundo Maya

Andres Navia
InterAmerican Development Bank
Washington, DC
Tel: 202-623-2042
Email: andresna@contractual.iadb.org

CENTRAL AMERICA – REGIONAL FIRE PROGRAM

Anne Dix
USAID/Central America
Email: adix@usaid.gov

Jill Kelley
Roberto Morales, CTO
USAID/Guatemala
Unit #3323
APO AA 34024
Tel: (502) 2-442-4900; (502) 2-422-4000
Email: jkelly@usaid.gov
Email: rmorales@usaid.gov

COLOMBIA

Gabriel Escobar
USAID/Colombia
Email: gescobar@usaid.gov

Marcela Canon, CNPU
Tel: 011-571-341-2218
011-571-286-5869
Email: mcanon@parquesnacionales.gov.co

Marysabel Rincon, Corporacion
Tel: 011-571-243-4970
Email: Marysa_r@hotmail.com

Juan Carlos Riascos
Tel: 011-57-315-833-9417 (cell)
Email: jcriascos@amazonteam.org

ECUADOR

Marc Weitzel
U.S. Department of the Interior
U.S. Fish and Wildlife Service
Tel: (805) 644-5185
Fax: (805) 644-1732
Email: marc_weitzel@mail.fws.gov

Rocio Cedeño, USAID/Ecuador, CTO
James Dunlap, USAID/Ecuador, RCO
Jed Barton, USAID/Ecuador, CONT
Av. Colombia 1573 y Queseras del Medio
Edificio Computec, Quito
Tel: 011-(593) 223-2100 (general)
011-(593) 255-7069 (direct)
Fax: 011-(593) 250-2758
Email: rcedeno@usaid.gov
Email: jdunlap@usaid.gov
Email: jbarton@usaid.gov

GEORGIA – PROTECTED AREAS DEVELOPMENT PROJECT

John Hansen
USAID/Georgia
Tel: 011-995-32 -77-85-40/41/42/43 (office)
202-216-6272 (VOIP line 9am-6pm Caucasus time [8 hours ahead of EST])
011- 995-32-31-30-58 (home)
011- 995-99-56-69-56 (mobile)
Email: jhansen@usaid.gov
20 Telavi Street, 5th Floor
Sheraton Metechi
Tbilisi, 380003
Georgia

Carl Mitchell, CTO
Bureau for Europe and the New Independent States
Tel: (202) 712-5495
Fax: (202) 216-3014
Email: cmitchell@usaid.gov

Gloria Steele, Agreement Officer
Email: gsteele@usaid.gov

Shahridan Faiez
Natural Resource Management Specialist
World Bank
Tel: (202) 473-2673
Fax: (202) 477-2733
Email: sfaiez@worldbank.org

Paata Shanshiashvili
Georgia Protected Areas Development Center
9 Veriko Anjaparidze str. V fl
Tbilisi 01 79, Georgia
Cell: 011-995-99-572184
Tel: 011-995-32-25-15-66 (office)
Tel: 011-995-32-37-17-23 (home)
Email: pshanshiashvili@gpadc.org.ge

Bill Supernaugh
U.S. Department of the Interior
National Park Service
Tel: (605) 433-5280
Fax: (605) 433-5404
Email: william_supernaugh@nps.gov

GEORGIA – INTEGRATED COASTAL MANAGEMENT PROJECT

Mamuka Gvilava
Director, ICZM Centre
2nd Floor, 87 Paliashvili Street
Tbilisi, Georgia
Tel/Fax: 011-995 (32) 25-20-50
Mobile: 011-995 (99) 54-66-16
Fax: 011-1 (419) 791-6651
Email: PHASiS@ICZM.org.ge
Web Site: www.ICZM.org.ge

INDONESIA

Al Whitehouse
U.S. Department of the Interior
Office of Surface Mining
Email: awhitehouse@osmre.gov

Theresa Tuano
USAID/Indonesia
Tel: 62-21-344-2211 Ext. 2340
Fax: 62-21-380-6694
Email: ttuano@usaid.gov

Roberta Hilbruner, CTO
Tel: (202) 712-5688
Fax: (202) 216-3174
Email: rhilbruner@usaid.gov

Jacqueline Schafer, Agreement Officer
Email: jschafer@usaid.gov

Jeff Brokaw
Email: jbrokaw@usaid.gov

MOROCCO

Jamal Dadi, USAID/Morocco, CTO
Richard Rousseau, USAID/Morocco
Tel.: 212 37 63 20 01 (general)
Email: jdadi@usaid.gov
Email: rrousseau@usaid.gov

Brian Wood, Morocco Rural Tourism Project, Chief of Party
Sonia Pagliaro, Morocco Rural Tourism Project
Email: bwood@ruraltourism.ma
Email: spagliari@ruraltourism.ma
Tel: (212) 37 56 38 41
Fax: (212) 37 56 38 43
<http://www.ruraltourism.ma>

Roberta Hilbruner, CTO
Tel: (202) 712-5688
Fax: (202) 216-3174
Email: rhilbruner@usaid.gov

Jacqueline Schafer, Agreement Officer
Email: jschafer@usaid.gov

Jeff Brokaw
Email: jbrokaw@usaid.gov

NILE BASIN

Aaron Salzberg, CTO
Email: salzbergaa@state.gov

Daniel Balzer, East Africa Hub Office, Regional Environmental Officer
Moges Worku, East Africa Hub Office
Email: balzerdk@state.gov
Email: workum@state.gov

Clement Brown
U.S. Department of the Interior
Office of the Secretary
Tel: (202) 208-7103
Fax: (202) 501-6381
Email: clement_m_brown@ios.doi.gov

PERU

Marcia Toledo, CTO
James Dunlap, USAID/Peru, RCO
Jed Barton, USAID/Peru, CONT
Tel: (51) 1-618-1200
Fax: (51) 1-618-1350
Email: mtoledo@usaid.gov
Email: jdunlap@usaid.gov
Email: jbarton@usaid.gov

David Larson
U.S. Department of the Interior
National Park Service
Tel: (530) 667-2282 ext. 229
Fax: (530) 667-2737
Email: david_larson@nps.gov

PHILIPPINES

Dan Moore
Chief, Office of Environmental Management
USAID/Philippines
8th Floor PNB Financial Center
Roxas Blvd., Pasay City
Fax: (632) 552-9997
Email: dmoore@usaid.gov

Renerio Acosta
USAID/Philippines
Email: racosta@usaid.gov

TANZANIA

Dennis Cengel
Gilbert Kajuna, CTO
USAID/Tanzania
Tel: 011-255-51-110764; 117537
Fax: 011-255-22-2117537
Email: dcengel@usaid.gov
Email: gkajuna@usaid.gov

Natalie Thunberg, Regional Agreement Officer
Email: rthunberg@usaid.gov

DEC
Email: docsubmit@dec.cdie.org

EGAT
Email: RVolk@usaid.gov

FINANCIAL SUMMARY for USAID AGEEMENTS

Expenditures through September 30, 2005

PASA 520-P-00-03-00099-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Guatemala	\$175,000	\$175,000	\$0	\$350,000
Central America Regional Fire	\$1,400,000	\$1,190,770	\$209,230	\$1,428,924

PAPA 623-P-00-03-00006-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Tanzania	\$175,000	\$175,000	\$0	\$350,000

IAA 518-P-00-02-00122-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Ecuador	\$100,000	\$100,000	\$0	\$200,000

PAPA 518-P-00-05-00088-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Ecuador	\$50,000	\$0	\$50,000	\$0

ENV-P-00-00-0003-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Indo Decentralization	\$4,090,000	\$4,090,000	\$0	\$40,000
Indo Mine Inspector Training	\$225,000	\$225,000	\$0	\$25,000
Indo Decentralization (EAPEI)	\$120,000	\$120,000	\$0	\$15,000
SubTotal	\$4,435,000	\$4,435,000	\$0	\$80,000
Bangladesh Arsenic	\$200,000	\$200,000	\$0	\$20,000
Cambodia	\$50,000	\$44,039	\$5,961	\$88,078
Brazil - CITES	\$10,000	\$10,000	\$0	\$5,000
Morocco	\$60,000	\$60,000	\$0	\$120,000
Total	\$4,755,000	\$4,749,039	\$5,961	\$313,078

ENI-P-00-99-00005-0

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Georgia	\$600,000	\$250,000	\$350,000	\$500,000

527-P-00-02-00-220-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Peru	\$100,000	\$67,379	\$32,621	\$134,758

S-OES-03-IAA-0017

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Nile Basin	\$200,000	\$170,960	\$29,040	\$341,920

PAPA 514-P-00-04-0032-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Colombia	\$3,500,000	\$1,933,527	\$1,566,473	\$30,000

PASA 492-P-00-04-00033-00

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Philippines	\$175,000	\$59,161	\$115,839	\$118,322

MCC Technical Services Agreement

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Cape Verde	\$211,200	\$130,700	\$80,500	\$20,000

MOUs

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Mundo Maya	\$76,000	\$76,000	\$0	\$152,000

Contracts

Country	Total Budgeted	Expended	Remaining	Estimated DOI Contribution
Georgia - Kolkheti	\$63,168	\$62,060	\$1,108	\$124,120
Honduras - Rio Amarillo	\$36,000	\$36,000	\$0	\$72,000