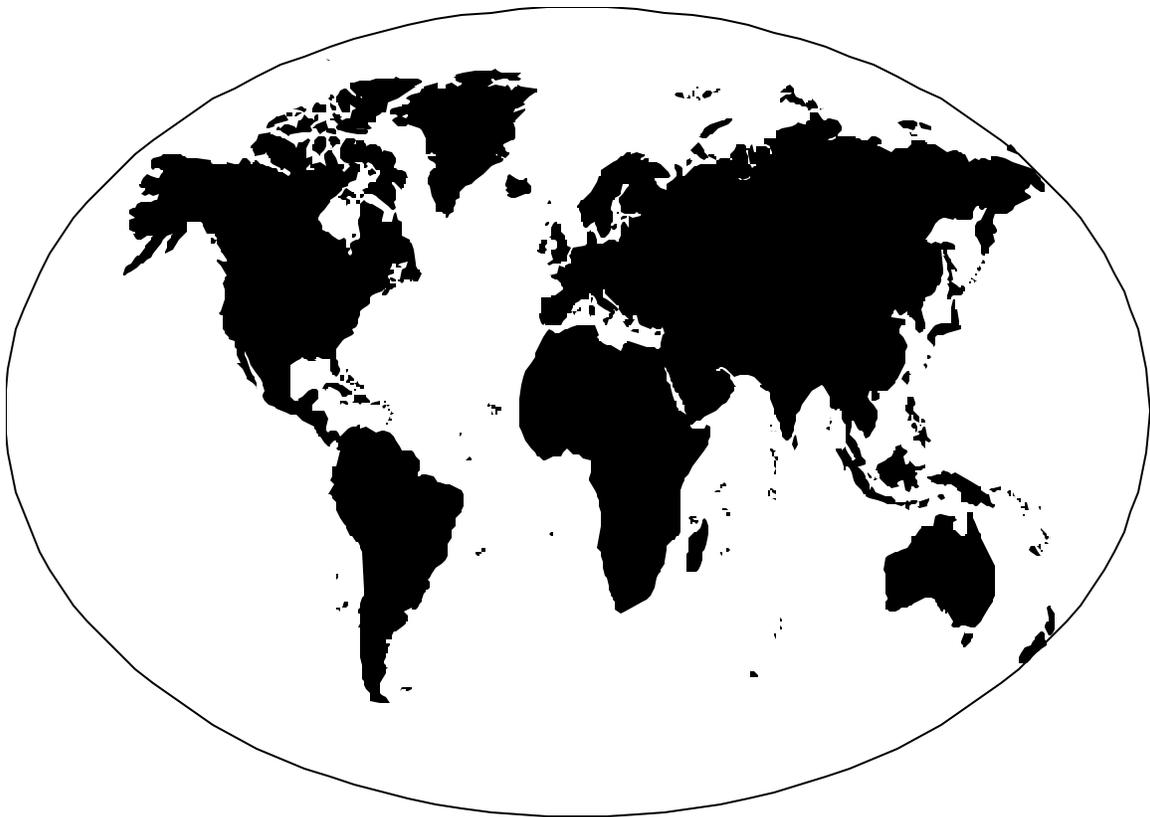


U. S. Department of the Interior
International Technical Assistance Program



Quarterly Report
January 1, 2006 through March 31, 2006

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International Technical Assistance Program

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's International Technical Assistance Program (DOI-ITAP) 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: Through DOI-ITAP, 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: Provides social services, promotes economic opportunity, and protects and improves trust assets for American Indians, Indian tribes and Alaska Natives.

Bureau of Reclamation: Manages 58 hydroelectric power plants and is the largest wholesale supplier of water in the United States.

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

- DOI-ITAP offers technical experts with a depth of applied technical knowledge, international experience, and relevant language skills.
- DOI-ITAP 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-ITAP 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-ITAP experts providing short-term technical assistance are covered by the U.S. Department of the Interior. In fact, DOI-ITAP matches donor contributions by an average ratio of 2:1.
- With its DOI's large internal training staff, DOI-ITAP can train the trainers to ensure long-term program sustainability.
- DOI-ITAP 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

DOI-ITAP 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, including technical assistance to the CITES Secretariat in Phnom Penh.

FUNDING

EAPEI in FY '02

RESULTS TO DATE

Assessment of Status and Conditions of Forest Resources

A DOI-ITAP 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-ITAP 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).

Technical Assistance to the CITES Secretariat in Phnom Penh

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).

Through a contract with WWF/TRAFFIC, DOI-ITAP procured needed equipment for the CITES Secretariat. Among other things, the office now has a functioning phone, fax and email account.

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).

SIGNIFICANT PROBLEMS OR DELAYS

There has been a significant hiatus in assistance due to personnel changes in the field.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

DOI-ITAP is now working with Conservation International to identify needs for technical assistance.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Cambodia are available upon request.

CAPE VERDE

Groundwater Monitoring Network

SUMMARY OF ASSISTANCE

DOI's U.S. Geological Survey (USGS) is working with the Millennium Challenge Corporation (MCC) to assist the Government of Cape Verde in assessing ground-water conditions in three watersheds on the Islands of Fogo, Santo Antao, and Sao Nicolau. In these three basins, MCC and Cape Verde are planning agricultural projects that require additional water resources. Future plans include the construction of wells, surface-water-retention structures, and ground-water recharge galleries to enhance water availability. In order to assess the hydrologic effects of this proposed new infrastructure, an evaluation of current ground-water baseline conditions is needed. Therefore, the USGS is providing the following technical assistance:

- Applying various methods for evaluating current ground-water conditions, including water-level measurements and installation of continuously recording pressure transducers in wells, ground-water discharge measurements at springs and streams, and geochemical sampling for evaluating ground-water recharge sources and travel times;
- Assisting the Cape Verdeans in the design of ground-water monitoring networks, including a determination of the type and frequency of ground-water measurements appropriate for each watershed;
- Providing training, equipment, and manuals to the Cape Verdean counterparts who will operate the ground-water monitoring networks;
- Analysis of historical precipitation, water-level, and spring-discharge data (where available) for evaluating effects of previous climate and anthropogenic influences on ground-water conditions;
- Interpreting data from the ground-water monitoring activities in order to establish a baseline for evaluating the affects of future MCC projects.

FUNDING

Millenium Challenge Corporation in FY '05 and FY '06

RESULTS TO DATE

Establishment of Ground-water Monitoring Network During First Mission (July-Aug 2005)

A USGS mission was made to Cape Verde Islands to: (1) provide training on ground-water monitoring and use of monitoring equipment, (2) establish ground-water monitoring networks in each of three watersheds, and (3) inventory wells and springs in each watershed.

Training Provided on First Mission

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)

Data Gathered on First Mission

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.

Second Mission

During the second mission to Cape Verde Islands, USGS experts: (1) provided additional ground-water monitoring equipment and training, (2) completed the inventorying of existing wells and springs in each of the three watersheds, (3) collected geochemical samples for evaluating sources of recharge and ground-water travel times within each watershed, (4) obtained GIS coverages, and (5) gathered historical precipitation and ground-water data (Nov-Dec 2005).

Training Provided During Second USGS Mission

On each of the islands visited, the following field training was provided:

- Use of GPS for establishment of new ground-water site locations
- Procedures for ground-water inventorying of wells and springs
- Electric tape water-level measurements in wells
- Spring and stream discharge measurements
- Installation and operation of pressure transducers in wells
- Water-quality sampling methods

Information Exchange and Data Gathering During the Second USGS mission

The team first traveled to the capital city of Praia to acquire historical and ongoing precipitation, well, and spring data, as well as detailed GIS coverages of each watershed. They also brought

over additional ground-water monitoring equipment, presented preliminary findings from the previous USGS mission, and submitted the first draft of a ground-water data collection field manual. The team then spent time on each island meeting with local water users and managers, measuring water levels and installing pressure transducers in wells, quantifying stream and spring discharge, and collecting water samples for geochemical analysis

General Outcomes

A wide variety of hydrologic data have been collected to better understand the current status of the aquifers in each of the three watersheds. While only a few observation wells have been inventoried, other information has been found useful for evaluating ground-water baseline conditions, including spring and stream discharge measurements, precipitation data, geology, topography, morphology, environmental tracers (age-dating and recharge source evaluation), historic water-level data, and historic discharge data from springs, tunnels and wells.

Deliverables

Final Report: A first draft of the final report, “Evaluation of ground-water baseline conditions in the Mosteiros, Ribeira Paul, and Ribeira Faja Basins, Republic of Cape Verde, West Africa”, has been prepared and submitted to MCC (April 2006). Assuming that the remaining laboratory environmental tracer results and two water-level transducer data sets are received by mid-June, the second draft will be submitted by June 30. The second draft will also be submitted for internal peer review.

List of Recommendations: A list of recommendations on water sanitation in each of the three watersheds is being prepared, along with options for continued monitoring and evaluation, alternative water development, and follow-up studies for meeting the needs of the planned agricultural development.

Field Manual: The final draft of the “Field Manual for Collection of Groundwater and Spring Data in the Republic of Cape Verde” was submitted to MCC (March 2006).

Presentation of Findings: Findings of the Cape Verde groundwater study were presented at the National Groundwater Association’s Summit 2006 meeting in San Antonio, Texas under the title “Alternative methods for assessing ground-water conditions in three Cape Verde Island watersheds with sparse well data” (April 2006).

Preliminary findings were delivered to MCC in a presentation in May 2006. The presentation was followed by a meeting to discuss the implications of these findings for the planned agricultural projects in the three watersheds and additional methods of communicating these findings to the Cape Verdeans.

SIGNIFICANT PROBLEMS OR DELAYS

None.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

The final report will be completed as additional data are received, with an anticipated draft submission date to MCC and peer review of June 30, 2006.

The findings will be presented to the Cape Verdeans by televideo on June 2, 2006.

A workshop in Cape Verde has been planned for July 17-21. This workshop will include discussion of the findings, final report, and recommendations for future monitoring, evaluation, and follow-up studies. Attendance at this workshop will depend on additional funding.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Cape Verde are available upon request.

CENTRAL AMERICA

Sustainable Tourism at Mayan Archeological Sites

SUMMARY OF ASSISTANCE

DOI-ITAP has signed a 5-year Memorandum of Understanding (MOU) with the Mundo Maya Organization (MMO) to provide technical assistance and training to the MMO countries (Belize, El Salvador, Guatemala, Honduras, Mexico). 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

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 by end-March 2006 (Oct 2005).

Park Planning and Management Technical Assistance

Guatemala: A team consisting of three DOI-ITAP 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-ITAP staff (planner, educator, and park manager) provided technical assistance to park staff at the Copan and Río 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-ITAP team (one architect and one landscape architect) evaluated and provided recommendations on the siting 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-ITAP 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-ITAP 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-ITAP Assessment Trip/Planning

Recommendations: DOI-ITAP provided the MMO and IDB with a comprehensive report detailing DOI-ITAP'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-ITAP, including estimated costs (Sept 2002).

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

SIGNIFICANT PROBLEMS OR DELAYS

DOI-ITAP is still awaiting final response Government of Honduras (multiple agencies) on the Management Plan for Rio Amarillo Archeological Park.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

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

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP 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-ITAP 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:

- Small grants for grass root level activities
- Emergency Fire Preparation and Response/Control
- Communications systems purchase and installation
- Technical assistance, training, and workshops on:
 - Fire Prevention and Detection
 - Economic valuation of Damages
 - National Strategic Planning
 - Fuels Management
 - Forest Pest Detection and Control
 - Disturbance Factors
 - Basic fire control training in select countries

FUNDING

USAID/Central America Regional Programs in FY '06

USAID/Central America Regional Programs in FY '05

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

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

RESULTS

Small Grants Program

A brief summary of each project along with the funds disbursed to and contributions by each grantee is provided in the following table.

Country & Project Summary	Grantee	Funds Disbursed	Grantee Contribution
GUATEMALA			
(1) Forest Fire and Pest control in Sierra de las Minas Biosphere Reserve in the Rio Hondo and Gualan Municipios”	Defensores de la Naturaleza	\$6,000	\$0
(2) Forest fire prevention and control in Laguna del Tigre National Park in the San Andres Municipio	ProPetén	\$20,000	\$10,948
BELIZE			
Forest fire and pest management in pine ecosystems in the Kaax Meen Noj and the Elijo Panti National Parks	Sociedad Itzamna	\$0	\$0
EL SALVADOR			
Develop mechanism for forest fire & pest control and mgmt in the La Montañosa region	FUNPROCOOP	\$30,194	\$7,715
HONDURAS			
Forest fire & pest mgmt for the Villa Santa Agroforestry Cooperative in the town of Danlí.	Villa Santa Agroforestry Cooperative	\$40,000	\$6,900
NICARAGUA			
(1) Forest fire prevention and control plan for the San Francisco Municipio	San Fernando Municipio in Nueva Segovia	\$20,000	\$0
(2) Biological studies of tree bark strippers in the pine forests of the San Fernando Municipio		\$20,000	\$0
COSTA RICA			
(1) Support fire fighting brigades in Arenal Tempisque Conservation Area in Guanacaste	ASEACA	\$20,000	\$86,818
(2) Increase community participation in forest fire prevention in the Nicoya Penninsula	ASEPALECO	\$20,000	\$1,424
PANAMA			
Strengthening of management, prevention, and control of forest fires in the Soberania and Camino de Cruces National Parks	Kuna Nega Community	\$40,000	\$13,576
MEXICO			
Development of Community Fire Mgmt Plans in 3 critical zones of the Zoque Selva	Pronatura Chiapas	\$15,000	\$0
TOTALS to DATE		\$231,194	\$127,381

All Small Grants Selected and Projects Underway & Some Being Completed: The Small Grants projects were initiated in March 2005. To date, approximately 66 percent of the funds have been disbursed and progress reports submitted. Further, a total of \$40,563 in counterpart contributions have been reported as expended by the grantees toward these

projects. The Belize and Mexico proposals were recently approved and implementation is recently getting underway (Mar 2006).

Small Grants Recipients Selected and Funds Disbursed for 7 of 8 Countries: In consensus with USAID and fire management representatives from each of the 8 governments, DOI-ITAP has selected the small grants recipients for all countries with the exception of Mexico and Belize. Once selected, a partial disbursement was made to each to get initiate project implementation. A condition for these grants is that counterpart funds also be provided by the recipient (Mar 2005).

Small Grants Projects Selected for 6 of 8 Countries: DOI-ITAP 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).

Fire Control and Prevention

Dendrochronology Workshop – Evaluating Disturbance Factors: ITAP sponsored a workshop that provided participants with skills necessary to implement and interpret dendrochronology studies, with a focus on the development of a master chronology and the delineation of historic fire regime. Because such studies have rarely been attempted in Central America, an important component of the workshop included an investigation to determine if cross-dating techniques could even be applied and interpreted with confidence in tropical pine ecosystems. Preliminary results show that quality cross-dating studies can be achieved. Continued work by dendrochronology laboratories in Mexico and Arizona are expected to lead to the first ever published master chronology for Guatemala. Post-workshop contacts with participants have been very positive, and future investigations in both Costa Rica and Guatemala have been requested (March 06).

Forest Fire Causes: ITAP sponsored a training course that reviewed state-of-the-art knowledge, data, and techniques for investigating the causes of forest fires. The course participants learned the numerous benefits gained to help prevent fires through the application of these investigative skills. Fire cause experts from Spain's Ministry of the Environment and Costa Rica's Ministry of the Environment and Energy led the trainer team. This course was held in Costa Rica and drew three to four representatives from each of the participating countries (Nov-Dec 05).

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).

Economic Valuation of Damages Caused by Forest Fires

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 (ongoing).

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.

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” in Spanish). 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-ITAP 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-ITAP 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-ITAP 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-ITAP 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-ITAP met with the Guatemalan President's Chief of Staff, where DOI-ITAP 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 Coordination with CCAD and USAID

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:

CCAD Protected Areas and Forest Reserves Meeting: The DOI-ITAP Project Manager attended this meeting held in Honduras to coordinate with the DOI-ITAP contractor, Fundacion Kukulkan, and government representatives to review and finalize DOI-ITAP Fire Management Plan activities for CY 2006 (Dec 2005).

Donor's Meeting: The DOI-ITAP Project Manager attended the annual Donor's Conference for conservation work in Central America held in Nicaragua to coordinate with representatives from Central American governments on future fire management work (Oct 2005).

Coordination Meetings: Two Program coordination meetings were held, one in Honduras and one in Panama, to review the CCAD/USAID/DOI-ITAP 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-ITAP 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).

Draft and Final Workplan Development: DOI-ITAP 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 (June and July 2004).

Prioritizing and Budget Development with CCAD and USAID: DOI-ITAP met with USAID/G-CAP, and CCAD participated in an initial workshop to determine the regional priorities in El Salvador (Apr 2004) and again with USAID/G-CAP to work on a final Budget in Washington DC (May 2004).

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

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

DOI-ITAP Fire Manager

Fire Technical Manager: Timothy Bradley, National Park Service Fire Ecologist from Whiskeytown National Recreation Area in northern California, has been brought on a reimbursable 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. He started out spending half his time on this program, getting it off the ground, and has since reduced that time to approximately ten (10) percent.

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Small Grants: DOI-ITAP will continue monitoring and disbursing the remaining small grants funds as the projects continue to be implemented.

Workshops and Trainings: DOI-ITAP will sponsor additional workshops and trainings over the next 3 months – dates are still to be determined. Included among these is a forest fires fuels training course to be held in Mexico in June 2006.

National Fire Management Strategic Plans: DOI-ITAP will continue sponsoring the development of and review of National Fire Management Plans for all countries with the exception of Mexico and Costa Rica, where such plans are well established.

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

Basic Firefighter Trainings: DOI-ITAP will continue sponsoring the multiple basic fire fighting trainings throughout Central America to be held at their respective countries.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance on the Central America program are available upon request.

COLOMBIA

Improving the Management of Colombia's National Parks

SUMMARY OF ASSISTANCE

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, and with funding from USAID/Colombia, DOI-ITAP and the Colombian National Parks Unit (CNPU) are collaborating to improve the overall management of the Colombian National Park system. DOI-ITAP 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

Staff Contracting

The project is helping to increase the numbers of protected area contracted staff throughout the Park system to increase the institutional presence in an effort to decrease the negative impacts caused by illegal human settlements, illegal use of the resources, and drug trafficking. *One hundred and fifty-four staff have been contracted under the project, including 45 professionals, 76 local park rangers, and 33 technicians.* The most extensive areas in the System, such as Puinawai, Chiribiquete, Nukak and Cahuinari, have tripled their capacity for coverage and mobility. (March 2006).

Park Operations and Infrastructure Maintenance

The Colombia National Parks Unit has identified the need for renting office space and maintaining park infrastructure and vehicles, in addition to providing fuel and lodging for park staff within the protected areas and those traveling from headquarters and regional offices, and office supplies. Through this program, DOI-ITAP is transferring funds to Corporación for park operations and infrastructure, in addition to travel and per diem that enables direct contact between national, regional, and park level staff. *During the reporting period, Corporación purchased fuel, as well as covered tickets and travel expenses in order to guarantee the optimum placement of staff in the field. In addition, Corporación entered into contracts for corrective and preventative maintenance of CNPU vehicles, motorcycles, boats and other park equipment. Eight fences were constructed and installed in Catatumbo Bari. Maintenance of headquarters and control stations at several parks was also undertaken. Headquarters was leased at Las Hermosas (March 2006).*

Training

Two training sessions have been conducted: one addressed the level of stress that many Park staff experience on the job due to the security situation in certain parts of the country. The second training was focused on environmental and conservation issues. (Dec 2005).

Equipment

Park staff require some very basic equipment in order to perform their jobs. The equipment needs identified by CNPU vary from park to park, but include such items as vehicles, motorcycles, boats, generators, motors, field gear, computers, GIS equipment, printers, photocopiers, cameras, software, communications equipment and fire fighting equipment.

During this quarter, progress was made in the procurement of equipment, including digital cameras, computers, printers, GPS units, and bicycles (March 2006). A detailed report on this procurement has been submitted to USAID/Colombia.

Planning

During its planning stage, the directors of each area, in mutual cooperation with the Parks Unit's General Management, prepared a baseline and specific goals for each of the following components:

1. Staff contracting
2. Reconditioning and construction of infrastructure
3. Purchase and maintenance of equipment
4. Participation and education

Administration

Procurement Procedures Evaluated: Juan Carlos Riascos confirms that appropriate procurement procedures are being adhered to, and that procurement files are in order (ongoing).

Oversight Contract Signed: DOI-ITAP secured the services of Juan Carlos Riascos, former Director of the Colombian National Parks Unit, to provide senior-level in-country oversight on the project on behalf of DOI-ITAP (Feb 2005).

Corporación Contract Signed: 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 board 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 is overseeing all equipment purchase and delivery; infrastructure design, planning and construction; increased staffing in protected areas; and staff training (Dec 2004).

Workplan Submitted: DOI-ITAP and CNPU submitted a life-of-project workplan to USAID/Colombia (Oct 2004).

SIGNIFICANT PROBLEMS OR DELAYS

When the Corporación contract expired December 16, 2006, all procurement had to cease until a no-cost extension was granted on the USAID-DOI Agreement which enabled DOI to extend the completion date on the Corporacion contract.

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Procurement activities will continue through June 30, 2006.

ADDITIONAL INFORMATION

Reports on this project are available upon request.

ECUADOR

Conserving Biodiversity in Ecuador's Protected Areas

SUMMARY OF ASSISTANCE

DOI-ITAP 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-ITAP 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 Bioreserva 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 Cotocachi Cayapas buffer zone. DOI-ITAP 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

Environmental Education: DOI-ITAP organized a network of environmental educators in the condor bioreserve area. This network ties all of the environmental education efforts in the area to common objectives. DOI-ITAP 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.

DOI-ITAP 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 (Sept 2004).

Oil Spill Response in Watersheds: A team of DOI-ITAP 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 1-week

formal course, in addition to pre-course monitoring and post-course follow-up activities (Aug 2005).

Resource Inventory and Monitoring: A DOI-ITAP 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).

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

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

DOI-ITAP and Ecociencia researchers jointly published a paper in the scientific journal *Ursus*, on habitat modeling for conservation of spectacled bear populations (Winter 2005).

Visitor Center Development: One DOI-ITAP 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).

Water Resource Management and Outreach: 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-ITAP assistance. The DOI-ITAP team 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-ITAP 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).

Additional Training: DOI-ITAP has provided training and technical assistance to Ecuadorians associated with the Condor Bioserve 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.

Galapagos Islands

Aerial Photography: DOI-ITAP provided technical assistance in aerial photography, using the Seawolf aircraft procured by DOI-ITAP in 2003 for Galapagos National Park. A DOI-ITAP 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).

Ecotourism: DOI-ITAP 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-ITAP's assistance has been requested for certain specialized areas of this project (July 2001).

DOI-ITAP 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).

Fisheries Database Assistance: DOI-ITAP 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).

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).

Interpretation: DOI-ITAP 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-

ITAP 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-ITAP 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).

A DOI-ITAP 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).

Success Story

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

A team of two DOI-ITAP interpretation experts provided technical assistance on interpretation and exhibit development for a community environmental education and interpretive center in Puerto Ayora, Santa Cruz, focused on the Galapagos Marine Reserve. Working with staff from Galapagos National Park and the Japan International Cooperation Agency the DOI-ITAP team helped organize a community outreach meeting, developed a conceptual framework for the center’s permanent exhibits, and drafted preliminary text in English and Spanish based on identified objectives, audiences and themes. In addition, the DOI-ITAP team reviewed funding and operational considerations for the center’s exhibits and recommended strategies for the preparation and advertisement of design and fabrication contracting documents (Dec 2005).

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

Law Enforcement: DOI-ITAP is providing ongoing training in law enforcement to the park guards of Galapagos National Park. DOI-ITAP 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-ITAP agents also worked with their counterparts to develop practical law enforcement forms. The law enforcement technical assistance was provided by DOI-ITAP 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-ITAP conducted advanced marine law enforcement training in conjunction with WildAid (Aug 2003).

DOI-ITAP 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-ITAP 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-ITAP 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-ITAP procured binoculars and GPS units for the marine reserve, and the DOI-ITAP team trained the guards on how to use and maintain these tools to enhance their law enforcement capabilities (Sept 2005).

Marine Biological Monitoring: DOI-ITAP 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-ITAP 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).

Museum Curation: DOI-ITAP 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).

Guayaquil

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

Watershed Infrastructure Impacts: DOI-ITAP 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

Community Forestry and Roads: DOI-ITAP 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-ITAP provided 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 and 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 Courses

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

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

Project Coordination

Meeting with Partners: The DOI-ITAP Project Managers met with USAID/Ecuador and local partners—including Rumicocha, The Nature Conservancy, Fundacion Antisana, and Altropico in Quito and Galapagos National Park staff, the Charles Darwin Foundation and Wildaid in the Galapagos—to plan technical assistance projects for the rest of FY04 and early FY05 (March/April 2004).

Meetings: A DOI-ITAP 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).

Coordinated Amphibious Aircraft Training: 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-ITAP (March 2005). DOI-ITAP 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).

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

Review of USAID Ecuador Strategic Plan: DOI-ITAP provided feedback to the USAID Ecuador Environment team on the environment strategy for the USAID Ecuador 2007-2012 Strategic Plan.

Infrastructure in Protected Areas: At the request of USAID Ecuador, DOI-ITAP prepared a brief overview of the complex issues involved in designing and implementing a user fee program for infrastructure installations in protected areas, and also assembled a list of reference materials available.

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

DOI-ITAP will coordinate the review of a tilapia eradication proposal for Galapagos National Park and if needed field a team of experts to assist with the eradication project.

DOI-ITAP will recruit teams of experts to provide technical assistance on ecotourism development in Northwestern Ecuador, spiny lobster research in the Galapagos, terrestrial oil spill contingency planning in the Quijos River Valley.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Ecuador are available upon request.

GEORGIA

Protected Areas Development Project

SUMMARY OF ASSISTANCE

DOI-ITAP 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-ITAP 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-ITAP 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

Ministry of Environment Protection and Natural Resources

Development of Work Plan: DOI-ITAP sent a team to Tbilisi in October 2005 to put together a work plan for DOI-ITAP technical assistance to the Ministry for FY06. While in Georgia and since the trip, DOI-ITAP has consulted with both USAID/Tbilisi and the Ministry of Environment Protection and Natural Resources, as well as key conservation NGOs based in Tbilisi, to create a comprehensive work plan for FY06 that will lead into additional activities in FY07 to support the goals of the Ministry. The work plan details four major areas of technical assistance that were identified as major Ministry priorities including:

- the development of a Ministry-wide training center and employee training program;
- the assessment of current and future needs for GIS data and applications;
- the development of a protected areas outreach plan; and
- the development of an urban and rural protected area demonstration site.

Protected Area System

Institutional Planning and Restructuring: DOI-ITAP 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. In addition, 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).

Operationalizing Existing Management Plans: DOI-ITAP sent a team to Georgia to concentrate on operationalizing existing management plans at Vashlovani, Tusheti, and Lagodekhi National Parks (Oct 2003).

Reorganization of Central Office: DOI-ITAP 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).

Landscape-Level Planning Technical Assistance: Through DOI-ITAP, U.S. Forest Service personnel provided preliminary training and technical assistance in landscape-level planning (July 2003).

New Mission and Organizational Structure: DOI-ITAP 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. A DOI-ITAP team conducted a workshop with Georgian resource managers and other stakeholders to review the proposed reforms and ensure public participation (Nov 1999).

Institutional Analysis: DOI-ITAP 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).

Sister Parks: DOI-ITAP 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).

Field-Level Training

Protected Area Management Training: A team of DOI-ITAP 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 (June 2003).

Lagodekhi Nature Reserve: With program funding, DOI-ITAP 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).
- Design a logo and uniform patch for Lagodekhi National Park (Dec 1999).

U.S. Study Tours

Alaska Study Tour: DOI-ITAP 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).

U.S. Training: 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).

Seminars and U.S. Parks Tour: DOI-ITAP officials conducted specially designed park management seminars and 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

DOI-ITAP is currently recruiting five teams to support technical assistance missions to Georgia as well as U.S. study tours of Georgian officials. It is anticipated that DOI-ITAP teams will be deployed to Tbilisi in Q3 of FY2006 in the areas of GIS development and training center development, followed by the other three teams in Q4 of FY2006. The contracting process to hire an in-country coordinator for the project is well underway and DOI-ITAP will continue to ensure that the process is completed as quickly as possible.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Georgia are available upon request.

GEORGIA

Integrated Coastal Management Project

SUMMARY OF ASSISTANCE

DOI-ITAP is providing 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 Lake Paliastomi. Kolkheti is a designated RAMSAR site.

DOI-ITAP 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

Assessment

With World Bank funding, a DOI-ITAP 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).

Signs

Designed Interpretive Boards: A DOI-ITAP interpretive expert traveled to Washington, DC to finalize interpretive boards for Kobuleti Reserve. The boards were delivered to Georgia (May 2005).

Designed Interpretive Trail: A team of interpretive experts developed an interpreted visitor trail in Kolkheti National Park (July 2004).

Infrastructure

Provided Uniform Template: DOI-ITAP procured an official National Park Service uniform for the Integrated Coastal Management Project to use as a template for a new uniform program for Georgia's system of protected areas (Dec 2005).

Provided Park headquarters Designs: DOI-ITAP 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).

Interpretive Planning

Draft Interpretive Plan: 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).

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

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Three technical assistance teams will be deployed between April – June 06. The first team will provide technical assistance on basic infrastructure for public use (e.g., boat landings, picnic areas, signs, kiosks, etc). and access and facilities throughout the Park.

The second team will provide technical assistance on developing outdoor exhibits and interpretive products.

The third team will provide technical assistance on the establishment and maintenance of a visitor center and tourism planning, visitor management and long-term funding.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Georgia are available upon request.

MOROCCO

Rural Tourism and Visitor Management

SUMMARY OF ASSISTANCE

In early 2005, DOI-ITAP was invited to partner with the USAID/Morocco Rural Tourism Project to provide visitor management capacity building for 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.

FUNDING

USAID/Morocco in FY '05

RESULTS TO DATE

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

Visitor Facilities Design: With logistical support from Chemonics, a team of three DOI-ITAP 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).

Working with local contractors, Moroccan counterparts and Chemonics International constructed the facilities that were designed in cooperation with DOI-ITAP experts, and funded by USAID Morocco. (September-November 2005).

Success Story

At the Balcon d'Ito site in Ifrane PAT, for many years local vendor stalls had lined the roadside and blocked the scenic view. Despite initial concerns, the vendors agreed to re-locate on either side of a rest area that was designed by DOI-ITAP and Moroccan counterparts. The newly constructed rest area has a scenic overlook with interpretive panels, benches, a small trail, and plenty of parking space. With these amenities, more tourists are stopping to enjoy the site, and the local vendors report that they have doubled their business since the new rest area has been in place.

Visitor Education and Information: With logistical support from Chemonics, a team of three DOI-ITAP 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).

Working with local contractors, Moroccan counterparts and Chemonics International built and installed the signs and display panels that were designed in cooperation with DOI-ITAP experts, and funded by USAID Morocco. In addition, they applied the recommendations of the DOI-ITAP team to upgrade the interpretive capabilities of the visitor information center in Ifrane PAT and the women's argan oil cooperative in Immouzer PAT (Sept-Nov 2005).

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

None - Project Completed.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Morocco are available upon request.

NILE BASIN

Collaborative Water Resource Management

SUMMARY OF ASSISTANCE

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 (NBI). Within the NBI, several sub-basin coordinating bodies and project implementation offices have been established to carry out project implementation for the NBI. 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

Meetings

DOI-ITAP participated 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, participated in the meetings to strengthen the U.S. Government's involvement in the NBI and its sub-basin coordinating bodies. DOI-ITAP also met with donors and partners to discuss ways the Department can continue its program of technical assistance to the NBI.

Study Tour

Twelve members of the Nile Basin Initiative Equatorial Lakes Subsidary Action Programme (NELSAP) participated in a 2-week water resource management study tour in 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-ITAP submitted a status report to State Department on the study tour.

SIGNIFICANT PROBLEMS OR DELAYS

None

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

At the October 2005 Donors & Partners Meeting, the NBI expressed interest in DOI-ITAP replicating the U.S. water resource management study tour for water ministers of the NBI member countries. DOI-ITAP will continue to work with the State Department and the NBI to facilitate that request.

DOI-ITAP will coordinate with in-country partners to identify options for providing targeted technical assistance to the NBI and NELSAP with residual funding from the 2003 U.S. – NBI Water Resource Management Study Tour.

ADDITIONAL INFORMATION

Reports describing the results of DOI-ITAP technical assistance in the Nile Basin are available upon request.

PERU

Improved Environmental Management in Targeted Areas

SUMMARY OF ASSISTANCE

DOI-ITAP is providing technical assistance to support Peru's Instituto Nacional de Recursos Naturales (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 '03

USAID/Peru in FY '02

RESULTS TO DATE

National Economic Information Project

In February 2005, DOI-ITAP 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-ITAP specialist and an economist from Ohio State University. During the reporting period October through December 2005, the economist from Ohio State University worked on completing the final organization and writing of the draft technical document. *During January 06, DOI-ITAP staff worked with the economist to review and update the Natural Protected Areas document. In mid-February 06, DOI-ITAP sent a semi-final version of the document to INRENA for review and comment. At this time, DOI-ITAP is awaiting comments back from INRENA (Mar 06).*

Park Fees and Concessions

A DOI-ITAP 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

In early January 2006, the DOI-ITAP economist conducted a site visit to assist the field team on the initial steps to develop the assessment questionnaire and compile background information for the willingness to pay survey to be completed in Oxapampa. During the visit, the group:

- *Chose a sample size*
- *Developed 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)*
- *Developed a draft 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)*
- *Developed the draft outline for the one-day workshop to occur in Oxapampa.*

Since the site visit, the economist has been working with the field team to acquire and review information from the water company in Oxapampa (EPS), assisting with the development of the questionnaire, and sending the field team background reference materials. At this time, the field team is in the process of finalizing the draft field questionnaire (Mar 06).

During the reporting period October through December 2005, planning was completed on sending an environmental services expert to conduct a site visit to Yanachaga/Oxapampa with selected INRENA staff, and a graduate student and advisor working on this initiative (Jan 06).

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

Protected Area Management Training

During the reporting period October through December 2005, ITAP staff and one DOI-ITAP specialist worked on finalizing contract procedures for developing a 1-week training course in Peru for staff from protected areas. The training will focus on the economics of protected areas, cost-benefit analysis, and valuation of natural resources.

The contract is now being finalized with Conservation Strategy Fund, and the location and timing of the training is being determined (March 2006).

DOI-ITAP 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-ITAP 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-ITAP 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-ITAP and its' partners could provide to Peru (Nov 2002).

SIGNIFICANT PROBLEMS OR DELAYS

Current challenges faced with this project have included:

- *Heavy INRENA workload*
- *Slow response time from the water company in Oxapampa (EPS)*
- *A recent flood event near Oxapampa that caused the water system to be compromised by heavy sediment loads from landslides that occurred in the buffer zone*
- *Slow communication response times between involved parties.*

MAJOR ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

DOI-ITAP will deliver final document in English and Spanish to support increased budget for INRENA.

The field team will field test the willingness to pay questionnaire in Oxapampa and then refine and implement the survey. It is planned that the questionnaire will be ready for implementation in May/June 06, data analysis will be conducted in June/July 06, and report development, review and finalization will occur in July/August 06. A 1-day workshop will also be completed in Oxapampa after implementation of the questionnaire.

DOI-ITAP will finalize contract for natural resources valuation training.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Peru are available upon request.

PHILIPPINES

Environmental Law Enforcement

SUMMARY OF ASSISTANCE

DOI-ITAP is 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. It supports the goal of USAID/Philippines 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.

FUNDING

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

RESULTS TO DATE

Marine Law Enforcement

Train-the-Trainer Law Enforcement Training: DOI-ITAP conducted a week-long workshop with a wide array of representatives on the investigative roles within environmental enforcement in the Philippines. DOI-ITAP teamed with trainers from USAID, FISH Project, Philippine Environment Governance, Tanggol Kalikasan, WWF-Philippines, and other NGO's to conduct the Training on Natural Resources Law Enforcement for Managers. This workshop focused on two pressing needs: (1) Capacity-building for agencies' investigative roles, and (2) Investigative management skills for mid-level staff. Philippines (Dec 2005).

Follow-up Law Enforcement Basic Training: DOI-ITAP 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 (Mar 2004).

Law Enforcement Basic Training: A DOI-ITAP 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-ITAP 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.”

Marine Law Enforcement Assessment: A DOI-ITAP 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).

Program Management

DOI-GOP MOU: DOI-ITAP is in the final stages of signing a Memorandum of Understanding with the GOP that underscores the U.S. Government commitment to working with and assisting the GOP with its coastal and forest resource law enforcement (March 2006).

Selected In-Country DOI-ITAP Representative: DOI-ITAP selected Mr. Asis Perez, a Filipino Environmental Attorney who heads up the NGO Tanggol Kalikasan, to serve as the in-country DOI-ITAP representative. Mr. Perez will coordinate and communicate with the Government of the Philippines (GOP), as needed, on DOI-ITAP-related activities (March 2006).

Environmental Law Enforcement Needs Assessment: A DOI-ITAP team consisting of DOI-ITAP Project Manager and two Law Enforcement Special Agents conducted this initial assessment to determine how best DOI-ITAP 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 Philippines press published a news article outlining the intent of having DOI-ITAP assist the Philippine government over the next 3 years (March 2005).

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

DOI-ITAP will work with USAID and the Government of the Philippines (GOP) to conduct a high-level meeting in July 2006.

ADDITIONAL INFORMATION

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP 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 deliver a broad range of technical assistance programs to the Government of Tanzania (GOT). The objective of this partnership is to improve natural resources management in a number of Tanzania's protected areas. Over the past 8 years, DOI-ITAP has provided technical assistance and training on such areas as: wildlife anti-poaching; 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-ITAP sites in the United States. In addition, 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.

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-ITAP 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-ITAP 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-ITAP 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-ITAP 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-ITAP law enforcement training at the Ugalla Game Reserve and delivered \$2,150 worth of equipment to the reserve, which included binoculars, mosquito netting, and GPS units (Sept 2005).

Ugalla Law Enforcement Training: Thirty-five Tanzanian Wildlife Division game scouts were trained by five DOI-ITAP 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-ITAP 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-ITAP 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-ITAP 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-ITAP teams assess the use and maintenance of the equipment.

Communications Systems

Ugalla Game Reserve Radio System: A DOI-ITAP 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-ITAP radio expert was also able to train key WD staff on the use and maintenance of the radios (Jan 2005).

Radio Communication System Assessment: A DOI-ITAP 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-ITAP 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-ITAP team combined this task with on-the-job training for park staff, emphasizing the environmental impact component of these tasks. The DOI-ITAP team also provided the park staff with inexpensive surveying equipment that was formerly unavailable, significantly improving their construction capabilities (June 2003).

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

Environmental Assessment: A DOI-ITAP 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-ITAP 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).

Road Assessment: 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-ITAP 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-ITAP 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-ITAP fire management teams have conducted training for Tarangire and Lake Manyara staff in fire suppression skills. DOI-ITAP 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-ITAP 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-Aug1999).

Park Interpretation and Education

Visitor Services: A DOI-ITAP team conducted a 2-week course on visitor services and interpretive guide training at Lake Manyara and Tarangire National Parks. The DOI-ITAP 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-ITAP 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-ITAP 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-ITAP 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-ITAP 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 organizations) 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

Reports are produced following each technical assistance assignment. Reports describing the results of DOI-ITAP technical assistance in Tanzania are available upon request.

DOI-ITAP Completed Programs

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, DOI-ITAP designed a practical training program focused on parks interpretation, education and management in Plitvice Lakes National Park, a World Heritage Site, and Paklenica National Park. 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-ITAP 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-ITAP 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.

DOI-ITAP also forged a relationship between Colombian and Guatemalan law enforcement staff who share many common issues. Since the close of this program, the Colombians have expanded their cooperation with Guatemala to work on broader issues related to the drug trade.

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.

Indonesia – Mine Policy:

DOI-ITAP provided 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 provided technical support to the national government, and selected provincial and county governments. An intern program and advanced inspector training was provided to appropriate Indonesian professionals to support decentralization efforts and to build local capacity.

Through the Department's Office of Surface Mining, DOI-ITAP:

- Helped relevant Indonesian agencies develop more rational positions on mining and the environment;
- Trained staff on mining, mining impacts, mitigation, reclamation, and minerals management;
- Helped the Indonesian government develop water quality standards for the coal mining industry. 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.
- Helped the Indonesian government develop water quality standards for the copper and gold industries. These new standards were promulgated in a Ministerial Decree in October 2004.
- Trained Indonesian staff on the review of environmental impact analyses for mining operations. The entire course with lesson plans and student handouts was translated into Bahasa, Indonesian. Indonesian instructors were trained, and the course continues to be provided by the Government of Indonesia.
- Conducted U.S. study tours to familiarize Indonesian staff with decentralized mining regulation in the U.S. During the visits, 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.
- Introduced cyanide vat leach technology to small scale miners who have been using mercury amalgamation to recover gold. 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. It is also more efficient.

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 1-week training, the 20 participants were instructed about quarry safety, sedimentation of stream channels, environmental best practices and visual impact.

Jordan – Cultural Resource Management:

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. In January 2003, The U.S. Department of the Interior and The Kingdom of Jordan 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. DOI-ITAP provided technical assistance to improve the management of the site.

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 2,000 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 National Park and Bwindi National Park, a World Heritage Site, are located in southwestern Uganda, and 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.

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