



USAID
FROM THE AMERICAN PEOPLE

BIODIVERSITY CONSERVATION AND FORESTRY PROGRAMS

FY 2012 Results and Funding



September 2013

**2013
Report**

**Conserving Biodiversity,
Sustaining Forests**

About this Report

This report fulfills the requirement for an annual report on the United States Agency for International Development's (USAID) implementation of Section 118 of the Foreign Assistance Act (FAA) on Tropical Forests. The report also discusses USAID activities implemented under Section 119 of the FAA on Endangered Species and Biodiversity.

Section 118 of the FAA focuses on the “continuing and accelerating alteration, destruction and loss of tropical forests in developing countries” and encourages actions which support tropical forest conservation and sustainable management. Section 119 of the FAA says “the extinction of animal and plant species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike” and asserts that biodiversity conservation should be an important objective of United States development assistance.

Biodiversity, especially in tropical forests, is essential to human well-being. USAID achieves multiple conservation and development objectives through programs that protect biodiversity in forests and other ecosystems, maintain or increase carbon stocks in forests, and restore forests lost or damaged by poor management or land conversion. Through highlights of results and in-depth project profiles, this report describes the range and magnitude of USAID investment in these areas in fiscal year (FY) 2012.

USAID's Biodiversity Conservation and Forestry Programs, 2013 Report

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“ The survival of protected wildlife species such as elephants, rhinos, great apes, tigers, sharks, tuna, and turtles has beneficial economic, social, and environmental impacts that are important to all nations. Wildlife trafficking reduces those benefits while generating billions of dollars in illicit revenues each year, contributing to the illegal economy, fueling instability, and undermining security. ”

*President Barack Obama
Executive Order of July 1, 2013
Combating Wildlife Trafficking*

People everywhere benefit from the goods and services provided by natural ecosystems, from wild foods and clean water to crop pollination, recreation and spiritual values. These benefits are at risk from accelerating biodiversity loss, especially for the rural poor who directly depend on nature for their livelihoods. President Obama recently issued an Executive Order to address one particularly challenging threat to biodiversity as well as human well-being: wildlife trafficking. USAID is on the Presidential Task Force established to develop a national strategy to address wildlife crime, contributing expertise while concurrently increasing the scope and sophistication of our Agency response to wildlife poaching and trade.

Though wildlife trafficking is a high profile threat, the diminished opportunity to experience and benefit from biodiversity is stealing from the next generation even when the underlying cause is not criminal. Over-harvesting of timber and fish, conversion of natural areas into farms and industrial production sites, and habitat fragmentation by roads and dams are among the common drivers of biodiversity loss that can also undermine a country's development potential. In contrast, biodiversity conservation actions can increase incomes and the sustainability of livelihoods; counter disease and malnutrition; promote gender equality; and help people access, manage and benefit from natural resources. Conserving functional ecosystems also protects other investments in poverty alleviation, food and water security, public health, and disaster risk reduction. For all these reasons, conservation is essential to international development.

Recognizing these linkages, USAID manages a diverse portfolio of projects that conserve biodiversity while advancing development, particularly for vulnerable groups

most impacted by biodiversity loss, including women, children, and indigenous people. This includes a major focus on conserving forests to address climate change, which exacerbates the challenges inherent to every development sector, including biodiversity conservation. Agency investments have a substantial impact and reach: in FY 2012, field conservation programs improved natural resource management across 240 million acres of biologically significant areas, larger than California, Nevada and Utah combined. A selection of notable results (pp. 4-5) followed by four in-depth project profiles serve to illustrate the major approaches used by USAID and its partners, and the role of conservation in transformational development.

International biodiversity conservation has a broad constituency among Americans and their elected representatives. USAID allocated \$184 million for biodiversity activities in FY 2012, all of which meet or exceed specific criteria for conservation programs. Almost half of biodiversity funds aim to conserve or better manage forests, which, combined with climate change mitigation and other programs, supported \$216 million in forestry programming. The distribution of these funds by missions and central operating units, and explanations of the terms *biodiversity* and *forestry* with respect to USAID programming, are provided in the table and text on pp. 14-16.

USAID is embarking on a new Agency-wide Biodiversity Policy that better focuses resources on the most threatened species and places in the highest priority countries. In support of this, USAID is reinvesting in evaluation, applied research, and knowledge management to ensure that challenges are acknowledged and addressed, and that success is understood and scaled up. USAID offices and missions are also expanding the evidence base for conservation as a development approach, while identifying opportunities for programs in climate change adaptation and mitigation, public health, food security, democracy and governance, and trade (among others) to contribute to conservation objectives. Collectively these actions will improve USAID's ability to successfully conserve priority places and document the Agency's impact on biodiversity and people.

As USAID works with colleagues across the U.S. government to develop America's strategy to combat poaching and wildlife trafficking, it will also be actively engaging field missions and partners to roll out the Biodiversity Policy and implement the components listed above, in the unique context of each country where we work. We look forward to reporting back next year on our progress, in addition to sharing our latest biodiversity and forestry results.

Approaches and Results

USAID conservation and forestry efforts are tailored to respond to threats to natural resources and the needs of local people. Projects in 58 countries (shaded green on the map, right) are supporting governments to operate national parks and reserves; helping communities gain capacity and rights to manage and benefit from forests, wildlife and fisheries; and improving countries' ability to develop without having their natural heritage ruined by climate change or poorly planned infrastructure and land use.

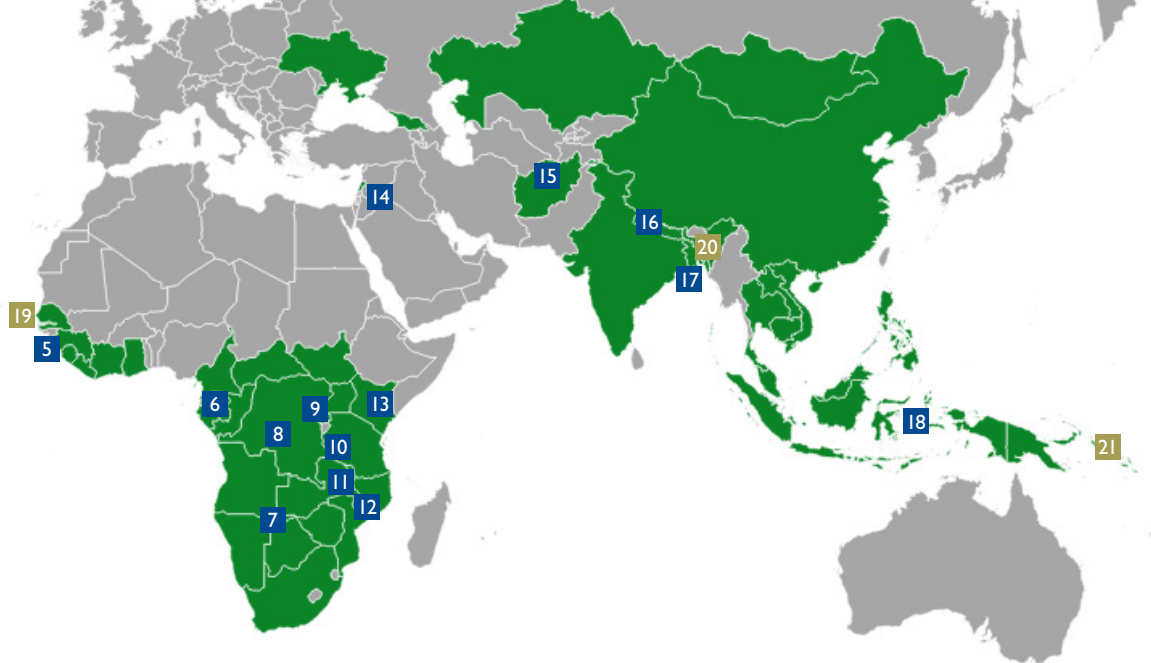
A selection of results in 2012, below, serves to recognize achievements large and small while illustrating the work USAID supports around the world. These are followed by four project profiles which provide depth on some of the Agency's major approaches: countering crime through law enforcement and public awareness (p. 6), protected area management and conservation finance (p. 8), community-based natural resource management (p. 10), and private sector engagement (p. 12). All of the projects profiled have elements of each approach and involve both policy development and capacity building.



Notable results of USAID assistance in 2012:

- 1** Endangered **scarlet macaw monitoring in Guatemala's Maya Biosphere Reserve recorded the best fledging success rate in 11 years**, with 32 active nests and 48 chicks fledged in 2012.
- 2** **Ecuador celebrated the inclusion of over one million hectares under its Socio Bosque program**, which pays landowners not to cut down their forests. Mangrove concessions and municipal water funds also counter forest loss.

Red crabs are better conserved and more profitable in Ecuador thanks to monitoring by 750 crab harvesters across 58,000 hectares of coastal waters, securing the livelihoods of 2,200 families and sustaining a \$64 million industry.
- 3** East of Colombia's El Cocuy National Natural Park, **cattle ranchers put in place stables and solar-powered electric fences to secure a corridor for wide-ranging jaguar**, reduce predation on livestock, and improve cattle ranching systems and electric power in this off-grid zone.
- 4** In the Brazilian states of Para and Mato Grosso, **over 5,000 private properties were registered in the States' environmental licensing and monitoring system, improving conservation across four million hectares of Amazon forest** now under environmental agency oversight.
- 5** **Significant arrests and sentences for wildlife trafficking in Guinea** followed updates to the wildlife code, including stricter penalties for hunting and selling endangered species.
- 6** **Fifteen new plant species were identified in Gabon and Equatorial Guinea**, highlighting the biological significance of 12 landscapes across the Congo Basin where **nearly 49 million hectares are under improved conservation management**.
- 7** Member states of the Southern African Development Community **endorsed the use of no-fence approaches to managing animal diseases**, a key prerequisite to removing some of the veterinary cordon fences that prevent wildlife movement and impoverish rural herders.
- 8** **Forest elephants returned to core areas of Salonga National Park after an anti-poaching operation by the Congolese government** arrested 30 suspected poachers, sentenced seven to prison, confiscated over 120 high-powered firearms, and burned one ton of illegal bushmeat.
- 9** For its contributions to ecotourism, biodiversity, and communities, **USAID/Rwanda's Nyungwe Nziza ecotourism development project was named Best Overseas Project and Best Global Project** by the British Guild of Travel Writers.



10 About **98,000 Tanzanians** earned income from **conservation enterprises**. Coffee farmers tripled their incomes over the last four years and community wildlife management areas have generated about \$5 million since establishment.

11 Over **6.3 million trees** were planted in woodlots and agroforestry plots in **Malawi**, reducing pressure on miombo woodlands and allowing natural regeneration in critical transition zones in Nyika National Park and four reserves.

12 Established and strengthened with support from USAID, **Lake Niassa Aquatic Reserve in Mozambique** was recognized as a globally important wetland under the Ramsar Convention.

13 The **Kenya Forest Service** now allows communities to sustainably use the buffer zones of forest reserves, expanding the reach of the TIST tree planting program whose members have earned \$22 million in payments from the voluntary carbon market, about \$433 per person.

14 In its second year, a **major reforestation effort** is on its way to planting several hundred thousand native trees in six of the seven districts of **Lebanon**. Communities and grassroots organizations manage nine nurseries and are trained in forest fire response.

15 Over **80 communities** are now involved in natural resource management in biodiverse parts of **Afghanistan**, as well as improved livestock management to reduce conflict with the snow leopard and other species.

16 **INTERPOL** and governments in South Asia marked **Global Tiger Day** with a counter wildlife trafficking operation netting **38 arrests** as well as seized tiger parts, rhino horns, and ivory.

17 **Bangladesh's** share of the **Sundarbans** 700,000 hectares of the world's largest mangrove forest and critical habitat for the Bengal tiger was put under **community co-management**, allowing local people to sustainably benefit from it.

18 **Indonesia's** Ministry of Marine Affairs and Fisheries improved management of **10 million hectares** by developing and applying tools for marine protected area management, sustainable financing, and ecotourism development.

Every two years, UNDP's Equator Initiative recognizes 25 outstanding local efforts that advance sustainable development solutions for people and nature. **Three of the 2012 winners were USAID local partners:**

19 **TRY Women's Oyster Association in Gambia**, in which 500 female harvesters restore and maintain mangrove forests and oyster fisheries in and around Tanbi National Park;

20 **Chunoti Co-Management Committee of Bangladesh**, for their volunteer patrols, reinvestment of ecotourism revenues into conservation activities, and leadership nationally in the co-management movement; and

21 **Tetepare Descendants' Association of the Solomon Islands**, whose community conservation agreements and marine protected area benefit forests, coasts and coral reefs.

Countering Wildlife Crime through Law Enforcement and Public Awareness

Turning the Tide of Wildlife Trafficking in Asia

Collaboration across countries is key to addressing illegal trade in wildlife, but the means to do so have not always been present. Investments by USAID and other U.S. agencies in a whole-of-government response to wildlife trafficking are bearing significant results in transboundary cooperation today.

Over the course of 31 days in early 2013, an unprecedented, 22-country law enforcement campaign struck a major blow to the world's fourth largest illicit trade: wildlife trafficking. Dubbed Operation Cobra, for the Chinese Year of the Snake, the effort yielded hundreds of arrests, from elephant poachers in Africa to tiger pelt buyers in Asia. The operation also seized a large amount of contraband from endangered species, including 42,000 kg of red sandalwood, 6,500 kg of elephant ivory, and 1,550 kg of shatoosh wool from the Tibetan chiru antelope. Put another way, that's about \$3.5 million of wood, \$18 million of ivory from 650 elephants, and \$80 million of shatoosh from 10,000 antelope. Confiscated horns from 22 rhino account for another \$4.4 million: they are literally worth their weight in gold.

Despite substantial progress over the past four decades to regulate commerce under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), wildlife trafficking is pushing many species toward extinction. Operation Cobra generated results that offer new hope for endangered species, and its successful use of transregional networks and stronger wildlife law enforcement collaboration represent the future of wildlife counter-trafficking. USAID helped build the foundation for this type of transnational cooperation through eight years of investment in the necessary systems, capacity and relationships. Through Asia's Regional Response to Endangered Species Trafficking (ARREST) — USAID's flagship effort on wildlife crime — anti-trafficking organization FREELAND Foundation and a law enforcement officer in the U.S. Fish and Wildlife Service (FWS) contributed data and expertise to Operation Cobra. The Government of China and a small grant from FWS provided additional funds for the operation.

The seed for Operation Cobra was planted In September 2012, when more than 30 law enforcement officers

from Africa, Asia and the United States assembled in Bangkok for joint training and operational planning of the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN) Special Investigations Group. The five-day training, organized by FREELAND and based on a course they developed under the ARREST program, was co-sponsored by USAID and the Department of State Bureau of International Narcotics and Law Enforcement Affairs. Participating law enforcement managers received instruction in cutting edge techniques for sharing data on transnational organized trafficking and ultimately dismantling criminal syndicates.

Inspired by what they learned, and acknowledging China's role as a major consumer of illegal wildlife products from Asia and Africa, participants from China's National Inter-

“ Wildlife trafficking is a multi-billion dollar illicit business that is decimating Africa's iconic animal populations. The United States is committed to combating wildlife trafficking, related corruption, and money laundering. With our international partners, we are working to reduce demand, strengthen enforcement, and building capacity to address these challenges bilaterally, regionally, and multilaterally. ”

*White House FACT Sheet
Wildlife Trafficking*



Inspectors sort Ivory confiscated in January 2013. Photo: © Operation Cobra

Agency CITES Enforcement Collaboration Group and ASEAN-WEN planned the collaborative action now known as Operation Cobra. Drawing on the expertise of partners such as World Customs Organization and the UN Office on Drugs and Crime, as well as several years of wildlife crime information collected by FREELAND, an international coordination team in Bangkok supported real time information sharing among participating law enforcement agencies and across borders. Cobra focused on the quality of investigations over the quantity of seizures, promoting specialized techniques that allowed several follow-up investigations into seizures of contraband.

USAID has supported ASEAN-WEN since the network was first established in 2005, helping stand up a secretariat, create several national wildlife enforcement networks, and train 2,000 law enforcement officers between 2005 and 2010. The ARREST program, started in 2011, builds on this support through training like that provided for law enforcement managers in the ASEAN-WEN Special Investigations Group, as well as courses tailored to park rangers, customs officers and police. ARREST also supports regional capacity in wildlife forensics, judicial strengthening, and other relevant areas. Through ARREST, USAID engages numerous local and international partners

while fostering a whole-of-U.S.-government response to wildlife crime, frequently drawing on the expertise of the National Park Service, Department of Justice and others.

Wildlife crime is driven by demand for wildlife products, so ARREST includes a robust program to reduce this demand in Asia. Following detailed wildlife consumption assessments, ARREST partners launched the *iThink* public awareness campaign in Thailand in early 2013, featuring messages from respected government officials and celebrities on billboards and videos online, with similar campaign to follow in China and Vietnam. A new global TV series featuring USAID-trained Asian environmental heroes combating wildlife trafficking is being broadcast widely.

ARREST is sharing lessons from Southeast Asia through exchanges, joint courses and joint operations with the recently established WENs in South Asia, Central America and the Horn of Africa. ASEAN-WEN itself has commitments to be entirely financed by member countries within a few years. By facilitating law enforcement collaboration and targeted demand reduction, ARREST is playing a key role in mobilizing an effective, sustainable and global response to wildlife trafficking.

Peru's Cordillera Azul National Park Holds the Line on Deforestation

Cordillera Azul National Park has achieved several "firsts" for Peru, including the first protected area managed primarily by a private sector entity, and the first protected area to demonstrate zero percent loss in forest cover. In the Peruvian National Park System, Cordillera Azul has the largest expanse of mountain forests, the best conservation ranking, and the least amount of infractions by residents within the area. USAID helped realize these achievements through a decade of support to The Field Museum of Natural History in Chicago and its local NGO partner *Centro de Conservación, Investigación y Manejo de Áreas Naturales Cordillera Azul (CIMA)*.

Cordillera Azul was established in 2001, following a three-week biological inventory by The Field Museum, which found an estimated 6,000 species of plants and 1,330 species of vertebrates, many endangered. More than 35 new species have been discovered in the Connecticut-sized park since that time. Intact forests stretch across a full altitudinal gradient of tall lowland rainforests to mountain-top elfin forests and meadows, and the park and associated buffer zone include the entire watersheds of the two main tributaries of the Peruvian Amazon. In sum, the park's size and topography support high biodiversity and help make it resilient to climate change. The park is in also an area so troubled by illicit coca cultivation that it is known as "Coca Valley," making progress to date worth close examination.

The Field Museum and CIMA take a two-pronged approach to biodiversity conservation: management interventions inside the 1.35 million hectare protected

area, and community engagement in the 2.3 million hectare buffer zone. Together these account for three percent of Peru's territory and cover parts of four different regional government departments, requiring continuous coordination among the various regional, provincial, local and communal leaders.

The two partners first worked to address immediate threats within the boundaries of Cordillera Azul. By 2006, illegal logging was completely eradicated from five basins where it was previously established and growing and, by 2008, the last farmers inside the park prior to designation

were relocated in a consensual and peaceful manner. The park is now uninhabited, with the exception of one rancher whose relocation is being negotiated, and possibly some non-contacted indigenous peoples in the south-eastern section. To manage the new park, CIMA and The Field Museum established 12 control posts and six park guard centers to protect park boundaries, as well as park guard shelters and informative signage. They also recruited and trained

45 national park guards and 100 community park guards to monitor biodiversity and threats. Park guards from throughout Peru are now sent to Cordillera Azul for its well-regarded training regimen.

In contrast to the park, the buffer zone contains about 180,000 people living in more than 200 communities, including 15 indigenous communities. Migration and disorganized settlement is putting pressure on forest resources, especially by those engaged in coca cultivation, illicit land purchases, illegal logging, and unregulated hunting



Schoolchildren learn about wildlife in Peru's Cordillera Azul National Park.
Photo: USAID



Cordillera Azul from the sky. Photo: Marilu Bacigalupo, USAID

and fishing. The rate of deforestation in the buffer zone is 1.6 percent annually, with 440,000 hectares of forest lost between 1999 and 2010.

CIMA and The Field Museum have worked with communities since 2002 to ensure that project activities incorporate and reflect the strengths, values and aspirations of local residents. Through environmental education and a variety of participatory tools and approaches, the project has increased the organizational and technical capabilities of local people, and carried out environmental zoning in more than 25 communities to help guide land use planning and reduce encroachment. Collaboration with communities and local governments neighboring the park is resulting in land-use stabilization, ecological and economic zoning, and conservation-compatible economic activities that improve quality of life according to local values and traditions. There are fewer socio-environmental conflicts than before, and the spread of illicit coca cultivation appears contained.

With major threats addressed and park management under control, CIMA received a 20-year management contract for Cordillera Azul from the Government of Peru in 2008, conferring authority but no funds. USAID joined other donors to form a public-private partnership

with CIMA and The Field Museum, which position the park for sustainable finance from voluntary and formal carbon markets.

In order to document reduced emissions from deforestation and forest degradation (REDD+) and ultimately sell carbon credits to buyers with a carbon debt, candidate projects must demonstrate carbon emissions would be increased in their absence — in this case, deforestation would be higher. With no net deforestation since the park was established, the Cordillera Azul REDD+ project is expected to avoid almost 16 million tons of CO₂ or equivalent greenhouse gas emissions in its first 10 years, from 2008-2017. In February 2013, the project was successfully validated and verified against the Verified Carbon Standard, and also validated against the Climate, Community and Biodiversity Standard, at the Gold level for Exceptional Biodiversity Benefits, a rating which could earn higher prices. Carbon markets are still developing, but with these credentials, CIMA should be able to make an initial sale of approximately 5.7 million market-ready CO₂ credits, based on progress to date. At current average prices (about \$6/credit), that would earn \$34 million for management of Cordillera Azul National Park and buffer zone.

Beyond the Parks: Conserving Rangelands in Kenya

Kenoti Matunge is one of 246 young men from northern Kenya recently recruited and trained to be conservation rangers in the pastoralist communities they call home. During three months of intensive USAID-sponsored training at the Kenya Wildlife Service (KWS) Manyani Field Training School, Kenoti and his large cohort gained skills in bushcraft, monitoring wildlife, and engaging with poachers. They also learned when Northern Rangelands Trust (NRT) community conservancy rangers like themselves should draw on the KWS or Kenya Police, especially in addressing illegal activities. Today, Kenoti is applying his skills at the Lekumuki Conservation Trust, a community conservancy under the NRT umbrella for which the local community now has rights and responsibilities to manage and benefit from rangeland important to wildlife and livestock.

Biodiversity, especially wildlife and productive rangelands, is important for the livelihoods of more than 30 million Kenyans, or three quarters of the population. It also constitutes much of the basis for tourism, the nation's second-highest revenue earner. Enlisting the participation of communities is necessary for biodiversity conservation in Kenya, where up to 60 percent of wildlife resides outside of parks and reserves. NRT helps communities establish conservancies, then works with them to put in place management plans for livestock, water, pasture and wildlife. NRT also builds community capacity to resolve resource-based conflicts and improve natural resource governance.

USAID has partnered with KWS and Northern Rangelands Trust for several years, helping establish the Trust in 2004 in collaboration with the privately-owned Lewa Conservancy. Since then, USAID/Kenya has invested nearly \$5 million in NRT's innovative and cost effective

approach to community-led conservation. Today, there are 26 community conservancies under NRT's umbrella, covering 3.6 million acres of Kenya's arid northern rangelands. These are bringing greater security and peace, improving livestock productivity, creating jobs, and conserving wildlife in areas that have historically been marginalized and impoverished.



A community ranger observes a family of elephants. Photo: © Juan Pablo Moreiras, FFI

Conservancies have attracted more than \$5 million in private sector tourism investments, and nature-based enterprises earned about \$500,000 in 2012. Many people now have jobs with lodges, while others maintain pastoralist lifestyles but earn a premium for sales of well-managed livestock. This income is helping send children to school and meet other household needs, while community funds support public investments.

These development gains in conservancies are threatened by a rapid increase in wildlife poaching in Kenya, including a 30 percent increase in elephant poaching in 2012 over the previous two years. In response, USAID supported a tripling of NRT ranger enrollment at Manyani Field Training School in 2012. This investment in well-trained

conservancy rangers, coupled with improved KWS information management systems, has reinforced security throughout the northern rangelands. As a result, community conservancies recorded a slower rate of wildlife decline than the national average. Some conservancies even recorded increases, such as Sera, where elephant sightings increased from 3,000 to 11,000 between 2006 and 2011, and sightings of endangered Grevy's zebra went from 250 to 2,000 in the same time period.

A large and increasing network of community members receiving benefits from conservancies are now acting as "eyes and ears" on the ground, providing information about poaching. Data sharing between NRT and KWS enables both institutions to deal with poaching, security, and human-wildlife conflicts more effectively.

USAID also supported the SAFARICARD, a smart-card, which has improved revenue collection for KWS and reduced misappropriation of revenue by up to 80 percent in the nine participating parks. In 2012, KWS collected \$28 million through the smart card system compared to \$8 million in 2011. As a result, KWS was able to increase its support to NRT community conservancy rangers and improve its own operations.

Inter-community conflict over natural resources in the northern rangelands is being addressed in the Manyani curriculum as well as by NRT. For example, before 2010, Borana and Turkana communities neighboring the Shaba National Reserve could not resist the rich grazing opportunities for their cattle in this wildlife-rich tourist destination, despite prohibitions. Shaba's popularity declined when encroaching pastoralism escalated into incidents of poaching and attacks on tourists. Under pressure to intervene for the sake of people and wildlife, the local county council and KWS supported NRT in rejecting a Turkana-only conservancy application for the areas surrounding Shaba, in favor of one set up to include both the Borana and the Turkana. The two ethnic groups are now equally represented in conservancy employment and governance, and have much more civil engagement with one another while respecting the boundaries of Shaba.

Beyond the immediate support for addressing poaching and conflict, conservancy designation helps each community access training and investment to make rangelands more productive for livestock and wildlife. For example, with support from USAID, the Nature Conservancy and NRT are working in seven conservancies to monitor the extent of rangeland improvement under different management regimes. As of 2012, the project had trained 2,336 people in holistic planned grazing. Monitoring results from various treatments will allow for better management choices, and early results are already showing significant improvements in biodiversity and range productivity from better planned grazing.

USAID is also working with the Government of Kenya and civil society to advance legal, policy and strategic reforms in favor of community conservation. These include the development and adoption of the first model for community land rights recognition. This approach to land tenure enhances minorities' rights to land and their incentives to manage it well. USAID/Kenya has also supported two new bills before parliament, the Community Lands Bill and the Wildlife Bill, both critical for managing natural resources in a devolved system of governance.

Community conservancies represent one of several pioneering environmental governance approaches advanced by USAID/Kenya, but lessons from long-term community-based conservation in other countries are also valuable. Kenyan organizations formed their counterpart to Namibia's Association of Conservation Support Organizations in 2012, hoping to replicate some of the success in Namibia, where one-sixth of the population benefits from CBNRM across a comparable area of land. The new association will complement NRT, KWS, and others in providing quality services to rural communities and organizations in Kenya that aim to develop sustainable conservation and livelihoods.

Collaboration from Ocean to Plate: Increasing the Safety and Sustainability of Honduras' Spiny Lobster Fishery

High demand for lobster tails in the United States has made the Caribbean spiny lobster the most valuable single species fishery of the Caribbean. About 10,000 tons are imported into the United States each year, including 3,000 tons from Nicaragua and Honduras worth \$80 million. Underlying this economic boon, lobster stocks have declined an estimated 25 percent over the last decade due to poor management and destructive collection methods associated with dangerous scuba diving practices. Indigenous residents of Moskitia, Honduras, are particularly reliant on the lobster fishery for their livelihoods, while also victims to the health hazards of this poorly regulated industry.

Unsustainable fisheries threaten marine life and coastal livelihoods throughout the world, but the purchasing power of seafood buyers can help keep fish and shellfish in the water and on menus. USAID's Global Fish Alliance, or G-FISH, was designed to leverage the self-interest of fishers, the private sector, and consumers to promote sustainable fishing and aquaculture. The complex nature of the spiny lobster fishery in Honduras combined with linkages to the U.S. made it an early priority for G-FISH, which also tackled fisheries in coastal Mozambique and inland Cambodia. The Alliance, managed by FHI 360, includes private sector partners such as Darden Restaurants, Inc., the world's largest full-service restaurant company and owner of Red Lobster and Olive Garden, among others. Darden is also one of the largest U.S. importers of spiny lobster from Honduras.

Hondurans collect lobster in three ways: industrial trapping, industrial scuba diving, and free diving. Of the two industrial methods, scuba diving is more destructive, as crowbars and hooks used to collect lobsters from reef crevices damage the reef and harm lobsters before determining if they are of legal size and not egg-bearing females. The intensity of industrial trap fishing has depleted the lobster stock, and "ghost traps" (lost or abandoned traps which continue to operate) cause economic losses

and waste. As stocks decrease there is a human toll as well: scuba divers have to dive deeper, longer, and more frequently, thereby increasing injuries, disabilities, and deaths from decompression sickness.

G-FISH launched the Spiny Lobster Initiative (SLI) in 2009 with the goal of reforming a particularly dangerous lobster fishery to make it safer and more sustainable. Growing government consensus on spiny lobster management but limited consultation with industry and communities made SLI particularly timely. The biggest changes to the fishery were initiated in March 2009, when the regional fisheries and aquaculture organization established an annual closure on lobster fishing during the four-month reproductive period. The organization also called for a regional ban on industrial scuba-dive fishing to begin in 2011, due to the



A diver in Honduras displays a spiny lobster caught using scuba gear.
Photo: FHI 360

thousands of divers that have suffered injury or death. Honduras and Nicaragua were granted an extension for that fishery to remain open and allow divers time to transition to other livelihoods.

The SLI helped Miskito Indians participate in these decision-making processes and speak for their own concerns and aspirations. Additionally, key leaders from the Active and Disabled Miskito Divers Associations joined the SLI Working Group. After one year of support, Miskito representatives were negotiating for better contracting and diving practices, and requesting support for fisheries management workshops and alternative livelihood projects.

Miskito divers worked with SLI to transition out of the industrial scuba fishery and consider safer and more sustainable activities, especially livelihoods that could apply existing skills. To that end, SLI worked with the entire value chain to inform and promote the benefits of a network of protected areas, as well as an artisanal fishery. By May 2010, Miskito authorities were in agreement, and in April 2012, four Miskito community leaders and the state Governor traveled to Belize to learn about an artisanal fishery applying community rights-based management. The participants are now applying lessons learned from Belize to their own artisanal fishery pilot project in La Moskitia.

In May 2012, the Miskitos developed the first draft zoning map for 1.5 million hectares of fishery grounds and cays in the Moskitia, including strict reserves for protection of critical habitats, and the artisanal fishing effort. The approach for the proposed area is to pilot best marine practices and use rights-based management and controlled access to help local organizations become managers of their own fisheries. A national decree endorsed by the Miskito is expected to officially designate the complex of reserves and fishing zones as the largest marine protected area in Central America. The Miskito Indians will have

exclusive use and management rights, codified for the first time into a new Honduran National Fishery Law. Further, key U.S. industry members have agreed to source lobster from the artisanal fishery, guaranteeing market access for the fishers.

Over the course of nearly five years, SLI helped develop at least 20 agreements and policies; publicized fisheries regulations through a variety of media; and leveraged almost \$5,000,000 from private sector partners. Through more than 45 consultative processes with 80 organizations including government and fishery stakeholders, SLI played a key role in building consensus, and supported industry recognition of both the seasonal closure and a request that the lobster fleet be reduced and better regulated. G-FISH also addressed consumer demand through their “Know Your Source” campaign, in which the Alliance

raised awareness among buyers and consumers about where and how seafood is sourced. As a result, processing plants in Honduras began to separate diver-caught versus trap-caught lobsters to meet demand from more conscientious buyers in the United States and Europe.

Success in complex efforts such as the Spiny Lobster Initiative does not come easily. Tools such as the innovative “system-in-a-room” approach were essential to getting

participation and ownership from individuals, associations and businesses across the lobster value chain. Private sector leadership has also been indispensable, with Darden now partnering with an even broader coalition to continue lobster fishery reform and increase consumer demand for lobsters caught in a safe and ecologically responsible manner. USAID’s work to bring diverse stakeholders to the table and create a marine protected area and artisanal fishery for lobster divers means that Honduras now has the opportunity to ban the industrial scuba-dive fishery and overcome a major threat to biodiversity, human health, and social justice.

“ The Spiny Lobster Initiative has shown great concern and has helped us to understand more about the lobster fishery in Honduras and how we can improve the fishery in the Moskitia. ”

Nora Trino, Governor of La Moskitia, Honduras

Table 1: USAID Funding for Biodiversity and Forestry Programs, FY 2012

Operating Unit or Program	FY 2012 Biodiversity Funding in US\$	FY 2012 Forestry Funding in US\$ ¹	Funding Account ²
Total of All Programs	\$183,974,000	\$215,982,010	
Tropical Countries	\$177,836,000	\$204,341,410	
Sub-Saharan AFRICA			
Africa Regional	\$2,000,000	\$2,292,000	DA
Central Africa Regional	\$13,188,000	\$22,588,000	DA
East Africa Regional	\$2,000,000	\$0	DA
Southern Africa Regional	\$2,750,000	\$125,000	DA
West Africa Regional	\$5,250,000	\$5,460,114	DA
Ghana	\$2,000,000	\$0	DA
Kenya	\$5,000,000	\$2,753,781	DA
Liberia	\$4,000,000	\$4,560,000	ESF
Malawi	\$2,500,000	\$4,967,200	DA
Mozambique	\$4,000,000	\$0	DA
Rwanda	\$2,000,000	\$500,000	DA
Senegal	\$700,000	\$0	DA
South Sudan	\$5,500,000	\$0	ESF
Tanzania	\$7,000,000	\$1,992,981	DA
Uganda	\$5,500,000	\$500,000	DA
Zambia	\$0	\$5,250,000	DA
Africa Total	\$63,388,000	\$50,989,076	
ASIA and the MIDDLE EAST			
Asia Regional	\$2,000,000	\$106,500	DA
Regional Development Mission for Asia	\$9,500,000	\$9,000,000	DA
Afghanistan	\$200,000	\$0	ESF
Bangladesh	\$6,000,000	\$10,000,000	DA
Cambodia	\$3,000,000	\$6,850,000	DA
India	\$0	\$4,000,000	DA
Indonesia	\$15,000,000	\$9,800,380	DA
Lebanon	\$0	\$4,990,600	ESF
Nepal	\$5,088,000	\$5,800,000	DA, ESF
Philippines	\$8,500,000	\$7,378,016	DA
Vietnam	\$0	\$2,000,000	DA
Asia and Middle East Total	\$49,288,000	\$59,925,496	

Table 1: USAID Funding for Biodiversity and Forestry Programs, FY 2012 *continued*

Operating Unit or Program	FY 2012 Biodiversity Funding in US\$	FY 2012 Forestry Funding in US\$ ¹	Funding Account ²
EUROPE AND EURASIA			
Georgia	\$750,000	\$750,000	AEECA
Ukraine	\$100,000	\$100,000	AEECA
Europe and Eurasia Total	\$850,000	\$850,000	
LATIN AMERICA AND THE CARIBBEAN			
Latin America and the Caribbean Regional	\$2,000,000	\$3,000,000	DA
South America Regional	\$3,000,000	\$2,500,000	DA
Central America Regional	\$11,400,000	\$16,794,000	DA
Brazil	\$7,500,000	\$10,800,000	DA
Colombia	\$6,198,000	\$9,000,000	ESF
Ecuador	\$6,000,000	\$6,190,000	DA
El Salvador	\$1,000,000	\$250,000	DA
Guatemala	\$3,500,000	\$7,275,000	DA
Haiti	\$1,000,000	\$200,000	ESF
Honduras	\$3,500,000	\$1,237,500	DA
Jamaica	\$0	\$1,000,000	DA
Mexico	\$2,000,000	\$9,090,000	DA
Peru	\$4,000,000	\$5,780,000	DA
Latin America and the Caribbean Total	\$51,098,000	\$73,116,500	
CENTRAL BUREAUS			
Bureau for Economic Growth, Education and Environment			
<i>Forestry and Biodiversity Office</i>	\$13,627,514	\$1,925,000	DA
<i>Global Climate Change Office and Coordinator</i>	\$0	\$17,036,781	DA
<i>Land Tenure and Resource Management Office</i>	\$4,053,000	\$737,459	DA
<i>Planning, Learning and Coordination Office</i>	\$500,605	\$66,541	DA
<i>Trade and Regulatory Reform Office</i>	\$160,000	\$750,000	DA
<i>Water Office</i>	\$1,284,000	\$0	DA
Bureau for Global Health	\$1,850,000	\$0	GHP
Central Bureaus Total	\$19,350,000	\$31,100,938	

¹ Nearly all forestry funding is from forest-focused climate change mitigation and biodiversity conservation investments.

² Types of funds include: Assistance to Europe, Eurasia, and Central Asia (AEECA), Development Assistance (DA), Economic Support Fund (ESF), and Global Health Program (GHP).

Funding Overview

Table 1 on pages 14-15 details USAID FY 2012 funding for biodiversity and forestry activities, by region and operating unit (missions, regional programs, and bureaus). *Forestry* is a funding attribution for any project that conserves or better manages forests, while *biodiversity* is a funding allocation to specific USAID operating units for actions that meet four defined criteria.³ All biodiversity activities must have an explicit conservation objective, be identified based on an analysis of threats to biodiversity, and monitor appropriate indicators. Further, site-based activities must aim to positively impact biodiversity in biologically significant areas.

In FY 2012, USAID programmed \$216 million in 50 countries in forestry, of which \$204 million was focused on tropical forests. About \$114 million in forestry activities advanced climate change mitigation under the Sustainable Landscapes (GCC-SL) pillar of the Agency's Global Climate Change portfolio. Another \$89 million in forestry work was part of USAID's biodiversity conservation programming. Efforts to restore or maintain forests for local needs, such as timber, tree crops, and disaster risk reduction, account for approximately \$15 million of forestry activities.

International biodiversity conservation programs received \$184 million in FY 2012 funding, supporting projects in 58 countries. About 48 percent of biodiversity funds

contributed to forest conservation and management, with the remainder applied to direct threats to wildlife and fisheries, or conservation of non-forest ecosystems such as grasslands in Mongolia, freshwater systems in Mozambique, and coral reefs in Indonesia. In addition to meeting the criteria summarized above, Agency biodiversity programs are encouraged to apply, refine and share best practices in conservation. Monitoring and evaluation support adaptive management of each project and improve USAID's ability to identify and scale up the most successful approaches.

Dedicated GCC-SL funding for the policy, planning, accounting, and monitoring aspects of forest management for climate change mitigation totaled \$114.5 million in FY 2012. These funds were entirely focused on maintaining or enhancing carbon sequestration by forests, except for \$500,000 used for analyses in support of low emissions development planning, which may or may not apply to forests depending on the country of focus. GCC-SL programs generally supported the suite of policies, institutional reforms and programs known as REDD+ — Reducing Emissions from Deforestation and forest Degradation *plus* conservation, the sustainable management of forests and enhancement of forest carbon stocks. All USAID-supported climate change mitigation projects monitor and report on greenhouse gas emissions avoided or sequestered.

³ The four criteria comprise USAID's "Biodiversity Code," a minimum compliance standard for Agency biodiversity programs. USAID's draft Biodiversity Policy (2013) recommends some modest improvements to the Code, requiring that actions and indicators relate to a stated theory of change.

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