



**USAID**  
FROM THE AMERICAN PEOPLE

# BIODIVERSITY CONSERVATION AND FORESTRY PROGRAMS



**2015** Report

FISCAL YEAR 2014

**Results and Funding**



KAHUZI-BIEGA NATIONAL PARK, DR CONGO – NOVEMBER 2014: Park rangers are critically important to protecting globally-important wildlife, including Eastern Lowland Gorillas in Kahuzi-Biega National Park. Photo by Natalie Bailey for USAID

## About This Report

The United States Agency for International Development (USAID) submits this report to fulfill the requirement for an annual report on implementation of Section 118 of the Foreign Assistance Act of 1961, as amended (FAA), on Tropical Forests. This report also relays important information related to Section 119 of the FAA on Endangered Species.

In Section 118 of the FAA, Congress expressed concern about the “continuing and accelerating alteration, destruction, and loss of tropical forests in developing countries, which pose a serious threat to development and the environment.” Section 118 requires that USAID take actions that support tropical forest conservation and sustainable management. USAID fulfills this responsibility primarily through programs that conserve forest biodiversity, maintain or increase carbon stocks in forests, or achieve both of these complementary objectives in strategic coordination, where appropriate.

In Section 119 of the FAA, Congress found that “the extinction of animal and plant species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike. Accordingly, the preservation of animal and plant species through the regulation of the hunting and trade in endangered species, through limitations on the pollution of natural systems, and through the protection of wildlife habitats should be an important objective of the United States development assistance.”

Sections 118 and 119 require that USAID analyze threats to tropical forests and biodiversity prior to formulating any country development strategy, in order to identify the actions needed to conserve these in each country and the extent to which actions taken meet the needs of tropical forests and biodiversity. At the project level, the design of all forestry and biodiversity activities is based, in part, on these analyses.

# **USAID's Biodiversity Conservation and Forestry Programs, 2015 Report**

## **FY 2014 Results and Funding**

November 2015

FRONT COVER: SAN IGNACIO, PERU – AUGUST 2014: A woman gathers coffee grown at the Experimental Center for Coffee in San Ignacio, Peru, part of the Eastern Cordillera Real Landscape. This landscape was part of USAID's flagship global conservation project, Sustainable Conservation Approaches in Priority Ecosystems (SCAPES), representing the culmination of 15 years of Agency programming and learning in landscape- and seascape-scale conservation. From 2009-2014, SCAPES supported conservation of nine landscapes spanning 19 countries, from the forest slopes of the Andes Mountains to the savannas and steppes of Africa and Asia. Photo by Juan Carlos Isaza-Natibo for USAID

***“The entire world has a stake in protecting the world's iconic animals, and the United States is strongly committed to meeting its obligation to help preserve the Earth's natural beauty for future generations.”***

– President Obama

Simply put, conservation is development. Nature's diversity supports local and global economic, food security, and health systems. When we work together to conserve nature, we build more resilient societies while sustaining global, national and local assets. Over the past half-century, the world has seen more progress toward economic prosperity and human development than during any other time in human history. But at the same time, humans have more quickly and more severely changed natural systems than in any comparable period in history.

USAID is helping shape a future in which both people and biodiversity thrive as a result of development that rewards environmental stewardship. Articulated in the first-ever USAID Biodiversity Policy, we are advancing this vision through a strategic focus on countries and regions with globally significant biodiversity, support for immediate and lasting solutions to growing threats like wildlife crime, and amplification of opportunities to achieve development by and for conservation. USAID is at the forefront of the U.S. Government's commitment to protect the natural world.

### **USAID's Biodiversity Policy**

On July 8, 2014, USAID Administrator Rajiv Shah joined bipartisan Congressional leaders, international dignitaries and conservation practitioners from around the world at a Capitol Hill event launching the Agency's first-ever Biodiversity Policy.

“With this new Policy, we are harnessing the power of innovation and proven approaches to effectively protect and manage the environment that supports us – the fertile farms, water basins, and clean air that will sustain our growth and spur our prosperity for generations to

come,” said Administrator Shah. “The Biodiversity Policy represents our commitment to conserve some of the world's most cherished resources, including swift action to stamp out global wildlife trafficking.”

The Biodiversity Policy focuses USAID's work on high-biodiversity priority geographies, with more than 50 percent of Agency spending focused on Tier One missions, as identified on pages 14-15 of this report. From the Amazon basin to the coral reefs of Southeast Asia to the vast grasslands of East Africa, USAID applies scientific and evidence-based approaches to achieve biodiversity conservation and sustainable development outcomes.

### **The Biodiversity Policy in Action**

The Biodiversity Policy emphasizes the importance of a holistic approach to conservation and development, as well as the importance of partnerships and innovation. In the Philippines, USAID partnered with Microsoft and the Government of Philippines to support innovative technology that has improved livelihoods and is improving fisheries management (see Casting a Wider – and Better – Net for Fishers).

Both conservation and development benefits can be realized through solutions to wildlife and fisheries crime. Poaching and illegal trade of wildlife and wildlife products threatens the survival of iconic species (such as tigers, sharks, rhinos, turtles and elephants), while hurting local livelihoods. In addition, it finances organized crime, and diminishes the rule of law, national security and prospects for international investment.

### **Combating Wildlife and Fisheries Crime**

USAID directed more than \$50 million in fiscal year 2014 funds towards activities that combat wildlife trafficking. The activities strengthen law enforcement and better detect, disrupt and dismantle wildlife crime, and also work to reduce demand for illegal wildlife products, and build international cooperation and partnerships.

**Using FY 2014 and FY 2015 funds, USAID is starting more than 35 new activities, for a total of more than 65 activities in 25 countries that advance the National Strategy for Combating Wildlife Trafficking.**

Our comprehensive approach includes training and equipment for communities and government agencies working to protect wildlife, as well as support for judicial systems and local and national policies to ensure wildlife crime is taken seriously and offenders receive sentences that deter them and others from illegal activities. We also promote innovation to scale impact, such as through our Wildlife Crime Technology Challenge, sourcing innovative science and technology-based solutions to detect transit routes, strengthen forensic evidence, reduce consumer demand, and tackle corruption. This report includes a profile of USAID support for the Spatial Monitoring and Reporting Tool (SMART) – a system of improved technology for wildlife law enforcement and monitoring – which is now used throughout many African countries where organized crime threatens wildlife.

Just as USAID is a leader in U.S. government efforts to combat wildlife trafficking, we are at the forefront of responding to the Presidential Memorandum for a Comprehensive Framework to Combat Illegal, Unreported and Unregulated Fishing and Seafood Fraud. A large portion of the seafood consumed by Americans originates from developing countries where governance and enforcement are weak. Illegal fishing threatens local and global food security, national security, national economies and livelihoods, and can only be stopped through coordinated interagency and international efforts.

The challenges confronting us are great, but the results articulated on the pages that follow demonstrate that solutions are in reach and progress can be made. This report's profile on landscape-level conservation reveals part of the recipe for success employed throughout USAID's biodiversity portfolio: careful analysis to ensure we are addressing the most important threats, in the right places, at the right scale. How we go about conservation also matters: when people benefit from the goods and services provided by biodiverse ecosystems, gaining income, rights and other development benefits from participating in conservation, our investments are both more effective and more sustainable. By applying these principles and encouraging others to do so as well, USAID sets a high bar for the international community working to conserve biodiversity around the world for the benefit of people, wildlife and wild places.

# Notable Results

USAID biodiversity and forestry field conservation programs in 2014 **improved natural resource management across more than 75 million biologically significant hectares** – an area the size of Texas and West Virginia combined. USAID biodiversity programs link strong science and policy engagement with innovative projects and local knowledge. USAID supports the conservation of priority sites, species, and natural systems in support of national and regional development goals and the global public good.

The Agency's Biodiversity Policy mandates that more than fifty percent of USAID funding be spent in **Tier One** Missions. This selectivity and focus of resources allows for targeted actions in areas with critical biodiversity where the Agency has a comparative advantage to make positive change in response to host country conservation and development priorities. Tier One Missions are in USAID-assisted countries or regions that have the highest biological criteria rank on the Global Environment Facility's Global Benefits Index for Biodiversity and that contain globally significant eco-regions. The current Tier One countries are shaded in the budget table on pages 14-15, which will be reviewed and aligned with ongoing USAID priorities as new data on global biodiversity are released.

In 2014, USAID projects in approximately 40 countries supported governments in the operation of national parks and reserves; helped communities gain capacity and rights to manage and benefit from forests, wildlife, and fisheries; and supported strategic efforts to stop wildlife crime by protecting wildlife, stopping transit routes, and decreasing demand.

A selection of results from 2014 illustrating the work USAID supports around the world is captured by region in the following pages. Land conservation activities are reported in hectares, which is a unit of area equal to 10,000 square meters and equivalent to 2.471 acres. Also included are three profiles that provide depth on some of USAID's signature approaches: combating wildlife trafficking through improved law enforcement, improved fisheries management through collaboration and technology, and transboundary landscape-scale conservation.

## LATIN AMERICA AND CARIBBEAN

- 1** Sales of certified high-value timber and non-timber forest products such as xate (ornamental palm frond), ramón nut, allspice and chicle (used for chewing gum) from **Guatemala's** Maya Biosphere Reserve generated more than \$7 million. USAID supported broadening of market access for these products, provided technical support to small and medium size enterprises, and supported access to credit from the National Rural Development Bank.
- 2** Following improvements to tourism facilities and services as well as extensive marketing, ten protected areas and five private reserves in **Honduras** increased visitation rates by 25 percent in FY14, resulting in greater revenue for both park operations and conservation.
- 3** During the 2013-2014 turtle nesting season, local alliances in **Panama, Costa Rica, Nicaragua, El Salvador and Honduras** protected 662,868 sea turtle hatchlings on key nesting beaches, bringing the total sea turtle hatchlings incubated and released since the start of the activity to 1,606,565.
- 4** In **Colombia's** Eastern Cordillera Real, owners of 60 farms agreed to protect or restore hundreds of hectares of forest in the buffer zone of the Alto Fragua Indi-Wasi National Park.
- 5** Communities in **Ecuador** accessed approximately \$1.7 million in cash-for-conservation payments from the government's pioneering of the Socio Bosque program to protect their forests. This brought 52,000 hectares of natural forest under conservation agreements for the next 20 years and economic benefits to more than 4,000 people.



**6** The Quito Water Fund improved the management of 505,000 hectares of critical areas in **Ecuador** through payments by high-volume water users to support conservation activities at the water source. The Fund has invested more than \$7.1 million in conservation activities in priority watersheds, a successful model that has been replicated by 35 water funds throughout the world.

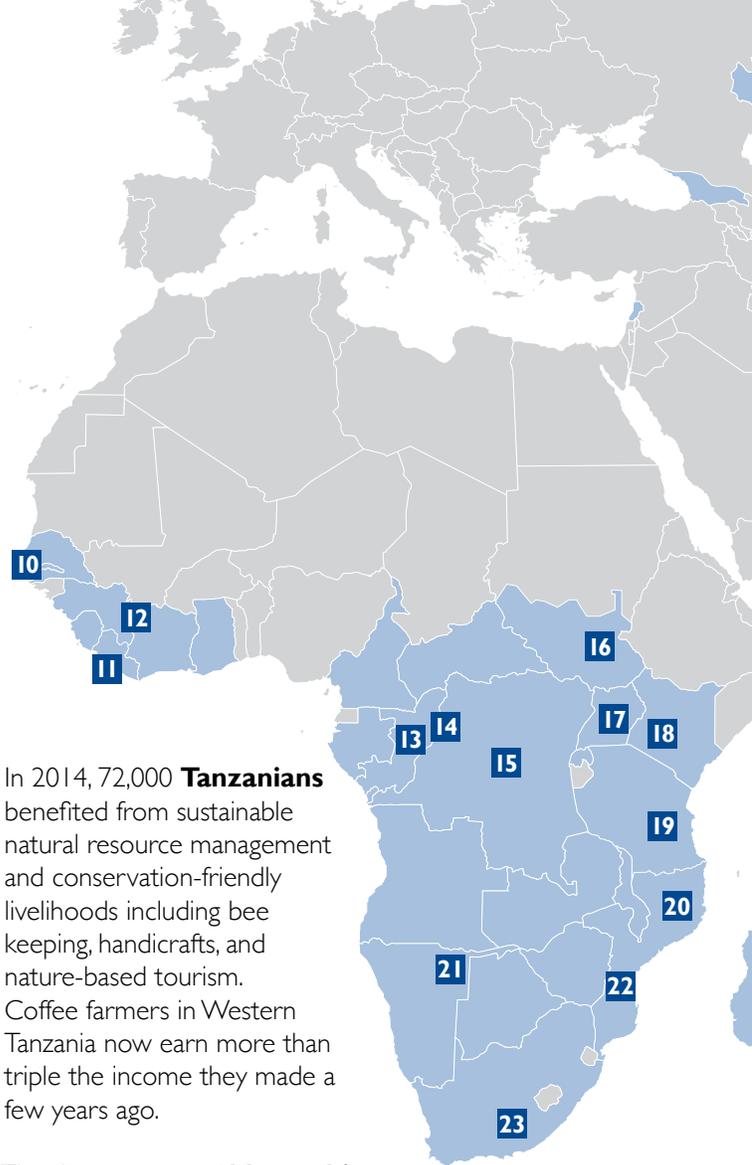
**7** The Initiative for the Conservation of the Andean Amazon's work in **Colombia, Ecuador** and **Peru** has improved the conservation and management of natural resources in 2,860,047 hectares of native communities and indigenous territories, 6,606,944 hectares within ten Protected Areas and three People Living in Voluntary Isolation territories, and 1,625,279 hectares of private and (non-indigenous) communal lands.

**8** The Government of **Peru** developed a tool that helps forest authorities track timber from the forest to the port in order to identify sources of illegal logging and to better enforce Peru's Forestry and Wildlife Law.

**9** Through **Brazil's** parks authority, the Chico Mendes Institute for Biodiversity Conservation, 440 federal and state natural resource agency staff were trained along with community leaders and members to improve public use of Brazilian national parks.

## AFRICA

- 10** In **The Gambia**, a women's association gained exclusive use rights to oyster and cockle fishing in the Sole Complex and Tanbi Wetlands National Park, both recently gazetted. Fishery co-management plans protect these biodiverse areas while providing income to families.
- 11** With skills gained in community forestry management training, **Liberian** community members resolved several land conflict issues, including a decades-long boundary dispute between two clans in Nimba County.
- 12** More than 200,000 hectares of forest in **Sierra Leone, Guinea** and **Cote d'Ivoire** is under improved management through improved community forestry, secure land tenure, and fire management.
- 13** Zero wildlife was lost to poaching in two previously hard-hit forest clearings in **Republic of Congo** where wildlife gather, thanks to new permanent wildlife monitoring teams.
- 14** The combined efforts in eight priority landscapes in **DRC** and **Republic of Congo** resulted in the dismantling of 2,562 snares and traps, seizure of 94 firearms, and apprehension of 307 poachers.
- 15** Five new community reserves were established in **Democratic Republic of Congo (DRC)**, providing important habitat and connectivity between existing national parks and reserves. Community-based natural resource management got a boost from a new conservation law and community forest decree.
- 16** Conservation security partnerships with wildlife authorities, police and local communities in **South Sudan** have contributed to 11 major law enforcement successes against wildlife criminals, reduced cattle raiding, and countered army abuses.
- 17** Conservation staff, community leaders and volunteer wildlife scouts in **Uganda** received technical training and resources to collect and use real-time data on wildlife and threats.
- 18** Local and national anti-poaching efforts in **Kenya** contributed to a 40 percent decline in rhino deaths and 50 percent decline in elephant deaths. In the community conservancies of the Northern Rangelands Trust, low levels of elephant poaching declined by 22 percent.



- 19** In 2014, 72,000 **Tanzanians** benefited from sustainable natural resource management and conservation-friendly livelihoods including bee keeping, handicrafts, and nature-based tourism. Coffee farmers in Western Tanzania now earn more than triple the income they made a few years ago.
- 20** The Government of **Mozambique** developed and passed a new law that criminalizes wildlife trafficking. A partnership with their Attorney General's Office brought together elected officials, law enforcement officers, conservation leaders, and reporters to develop a strategy to better combat wildlife crime under the new law.
- 21** **Namibia** earned Ramsar Site designation for its 47,000 hectare Bwabata-Okavango wetland, an important part of the seven million hectare Okavango Delta ecosystem.
- 22** With reinforced capacity, rangers in Gorongosa National Park, **Mozambique**, apprehended 186 poachers and removed nearly 1700 snares and traps found while on patrol.
- 23** An analysis of trade in abalone (sea snails) from **South Africa** to Hong Kong revealed high overexploitation and direct links with drug trafficking in South Africa. Partner TRAFFIC began building the capacity of customs authorities and facilitating discussion on whether abalone should be re-listed for strict trade regulation under CITES.

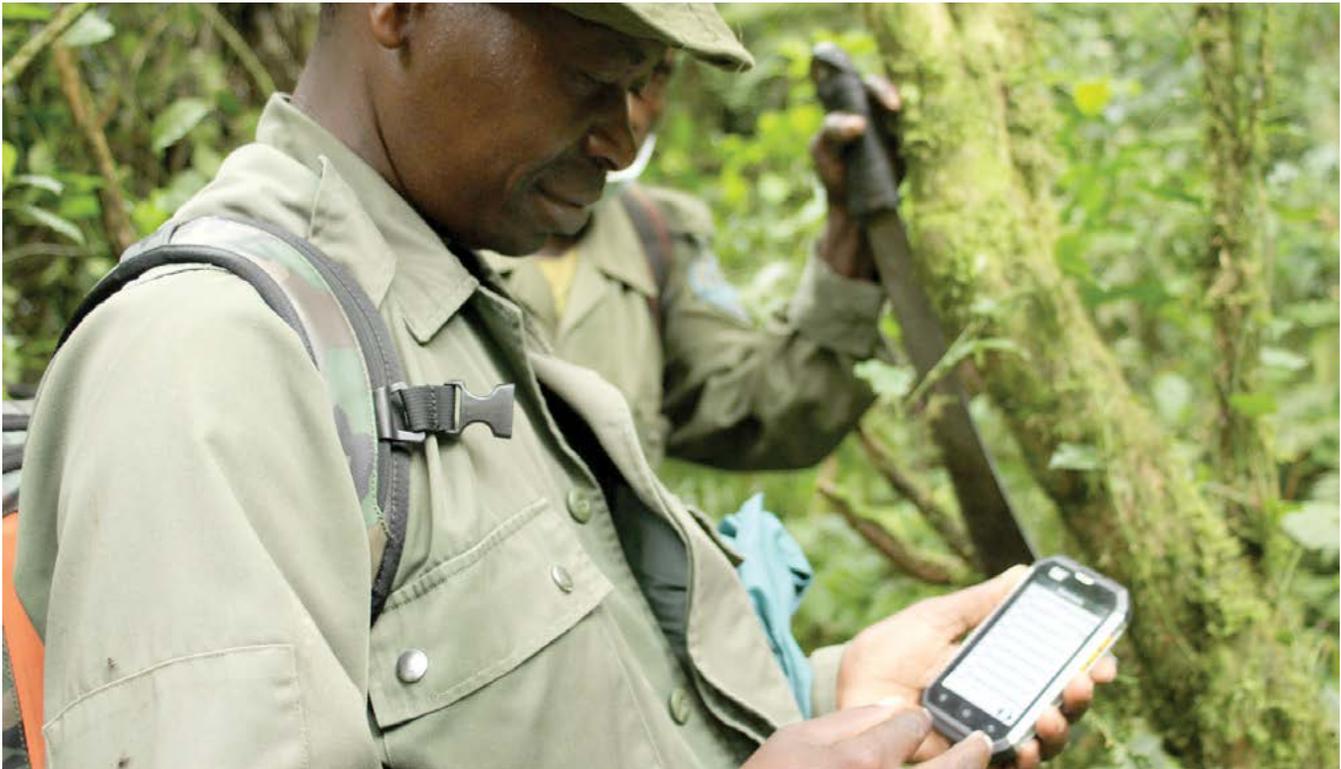


## ASIA

- 24** The governments of all twelve range states unanimously adopted the Bishkek Declaration on Snow Leopard Conservation and the Global Snow Leopard and Ecosystem Protection Program that will guide conservation efforts across the range of this endangered top predator.
- 25** Interpol's Project Predator developed intelligence reports that will help protect tigers, identify wildlife trade routes, and provide tactical guidance in wildlife crime scene investigations.
- 26** The tiger population of **Nepal** has grown by 64 percent over the last four years, and the country recently celebrated its third "Zero Poaching Year" in which no tigers, rhinos or elephants were lost to wildlife crime.
- 27** In **Bangladesh**, 43 co-management committees collected nearly \$45,000 in revenue from tourism in six protected areas. Nearly 30,000 local people have developed alternative sources of income that do not rely on exploitation of forest or wetland resources, including agriculture, aquaculture, and poultry farming.
- 28** Since April 2011, campaigns to reduce demand for wildlife products in **Vietnam, Thailand, and China** have reached over 740 million people through the internet, TV spots, and installations at airports, train stations and border crossings. Part of USAID's flagship response to wildlife crime in Asia, ARREST, these efforts have leveraged \$4 million from government and private partnerships.
- 29** Fin Free **Thailand** achieved a record 180 hotel and restaurant venues publicly committed to shark-free menus as of June 2015.
- 30** The "Wildlife Friendly Skies" campaign, which partners with Airports of **Thailand**, Kenya Airlines and Delta Airlines, increased awareness and capacity of baggage handlers and others in Bangkok to reduce illicit wildlife trade.
- 31** Three villages in **Cambodia's** Seima Protected Forest became the country's first communities to commercially and sustainably harvest forest resources. More than 200 local households protect and directly benefit from 9,000 hectares of forests.
- 32** USAID supported the development of a new law that allows protected areas in the **Philippines** to keep 75 percent of their revenues and retain greater control over spending on protection and conservation.
- 33** Thirteen private sector companies in **Indonesia** have committed to Conservation Management and Monitoring Plans to protect orangutan habitat within their concessions. 105 communities signed Community Conservation and Livelihoods Agreements to protect, restore, and sustainably use areas of high conservation value around their villages.
- 34** Joint training sessions with judges, prosecutors, police, and civil investigators resulted in better coordination among institutions combating wildlife crime in **Indonesia**. Community paralegal groups are now trained to report on wildlife trafficking cases in five environmental hotspots.

## PROFILE:

# Getting SMART about Combating Wildlife Trafficking



**KAHUZI-BIEGA NATIONAL PARK, DRC – NOVEMBER 2014:** Tito Biriandwa, a ranger at Kahuzi-Biega National Park, uses a mobile device to record his patrol and the gorillas he observes in the park. With support from CARPE, the data will be downloaded into SMART (Spatial Monitoring and Reporting Tool) software to help park management more effectively plan patrols and better protect wildlife. Photo by Natalie Bailey for USAID

Erasme Ngoy, Coordinator of the Punia Gorilla Reserve in Eastern Democratic Republic of Congo (DRC) has a responsibility to work with the local people who created the community reserve and to protect the gorillas, chimpanzees, and other species that live there. Not only does he need to know where the animals are, but he also needs to know where poachers may be found. In addition to local hunters that trap antelope and shoot monkeys for personal consumption or local trade, well-armed rebel groups operate throughout much of Eastern DRC, and are known to illegally kill elephants and sell ivory to finance their operations.

For Erasme, one solution to meet his data needs has been ranger-based monitoring: collecting data on wildlife and threats, often on paper data sheets. This low-tech solution has some obvious advantages in a resource poor environment, and can provide data on wildlife presence-absence or document signs of illegal activity. However, file cabinets full of paper and a backlog of data entry do not allow for rapidly assessing threats

and deploying resources where they are most needed. Park managers throughout the developing world are drowning in data but losing a literal battle with poachers and the organized criminal networks responsible for recruiting locally, paying bribes, and transporting illegal shipments. Well-heeled crime bosses pocket most of the profits from the \$10-\$20 billion illicit wildlife trade.

To overcome this challenge of too much data and too little actionable information, a coalition of conservation organizations banded together to create a simple but game-changing solution: the Spatial Monitoring and Reporting Tool (SMART). SMART is a new approach to ranger-based monitoring that allows rangers to instantly capture data in the field and provides managers with near real-time analysis to better focus conservation actions. It is an open-source, free tool for measuring, evaluating and improving the effectiveness of wildlife law enforcement patrols and other site-based activities, making better use of limited human resources.

First and foremost, SMART enables managers to more efficiently mobilize ranger patrols to areas threatened by poaching, agricultural encroachment, charcoal making or other threats. Getting personnel in the right place at the right time is critical for catching law breakers and deterring others from even considering illegal activities. The tool also provides protected area managers with a better understanding of the population size and range of large mammals, especially those in dense forests like gorillas and forest elephants. By making good data immediately useful, SMART is boosting motivation, increasing efficiency, and promoting credible and transparent monitoring of conservation efforts.

SMART was first field tested in Asia, but USAID brought this proof of concept to scale in 2013 and 2014 through three regional SMART workshops for wildlife law enforcement professionals and trainers in Central, East, and Southern Africa. In total, 78 professionals representing 32 organizations and agencies from 17 African countries took part, and have gone on to train their colleagues in data collection and database management, as well as how to use the data for adaptive management to make informed decisions.

In 2014, USAID provided SMART training and equipment to 309 park rangers in critical protected areas. Using SMART, conservationists are better able to plan ranger patrols, record evidence of poaching, and identify areas in need of greater protection. USAID's Central Africa Regional Program for the Environment (CARPE) has made SMART a critical component of its work to strengthen wildlife law enforcement in eight landscapes across DRC and neighboring Republic of Congo. In Tanzania, SMART has been piloted in the Waga Wildlife Management Area, and will be rolled out to Ruaha Reserve and all Tanzanian national parks in the coming years with USAID support. New partnerships in Mozambique will spread SMART to that protected area system.

SMART generates rapid results wherever it is deployed. For example, in two landscapes in DRC, SMART informed 85 to 100 percent of wildlife patrols. In the 8,100 square mile Maringa-Lapori-Wamba (MLW) landscape of DRC (approximately 2.5 times the size of

Shenandoah National Park), rangers effectively patrolled between 55 to 70 percent of the critical habitat for elephants and apes. In MLW's Lomako Reserve alone, 68 poachers were apprehended and prosecuted in 2014. In the Salonga landscape south of MLW, managers used SMART to identify hotspot routes frequented by elephant poachers, then used this information to establish a patrolling post to block access to the Yenege River. In the southern sector of the park, they also established two specialized patrol posts to protect bonobos.

As the major U.S. government funder of international biodiversity conservation, USAID applies a variety of approaches to conserve elephants, tigers, rhinos, turtles and other species threatened by wildlife crime. Among U.S. interagency partners carrying out the National Strategy to Combat Wildlife Trafficking, we are a leader in fostering innovation to reduce demand for wildlife products, detect and deter poachers, and disrupt trade in illegal wildlife products. SMART is an important new tool in the toolkit for securing our global wildlife heritage and fighting the criminal networks that exploit humans and nature.

Back in the Punia Gorilla Reserve, Erasme Ngoy rests a little easier. Poachers are more likely to get caught or stay away from well-patrolled areas, and tourism has a chance to increase with safer parks and less fearful wildlife. Community scouts are also more motivated to do their best, part of a new culture of accountability that ensures higher quality personnel, more productive patrols, and fewer opportunities for corruption. With more security and prospects for higher income, the community that established the reserve finally has a chance to realize the benefits they hoped it would bring.

## PROFILE:

# Casting a Wider – and Better – Net for Fishers

Innovative technology partnership connects 1.2 million fisherfolk for improved livelihoods and fisheries management in the Philippines



PANGLAO, PHILIPPINES – JULY 2013: The U.S. and Philippines governments worked with Microsoft to develop a public-private partnership for using TV white space to register fisherfolk in the Philippines. The MOU was signed by Andres Bojos of the Philippines Bureau of Fisheries and Aquatic Resources, Louis Casambre of the Philippines Department of Science and Technology, Karrie Ilagan of Microsoft-Philippines, Geronimo Silvestre of ECOFISH, and Randy Ali of USAID. Photo by USAID

The Philippines is home to more than 100 million people, is one of the fastest-growing countries in Asia, and is part of the coral triangle, an area of the Asia-Pacific that hosts the greatest diversity of marine species in the world. Given its rich marine resources, fisheries are a critical part of the Philippine economy and food security. However, unsustainable fishing practices have resulted in a 90 percent decline of fish populations over the past 50 years, threatening livelihoods, economic development, and the country's unique endowment of marine ecosystems. It is estimated that today 40 percent of Filipino fishers live below the poverty line.

USAID is helping the Philippines conserve marine biodiversity, enhance ecosystem productivity and improve employment from sustainable fisheries through an innovative technology partnership. **The National Program for Municipal Fisherfolk Registration program (FishR) harnessed television white space technology to deliver high-speed wireless access in five remote municipalities, resulting in**

**a 500 percent increase in fisher registrations in just five months.**

### Fishing for Information

Rebuilding and sustaining wild fisheries requires answering the basic questions of fishing activity – who, where, what, how, and how much. This information allows fisheries agencies, such as the Philippines Bureau of Fisheries and Aquatic Resources (BFAR), to carry out their duties of law enforcement and fisheries management. The Philippines Fisheries Code mandates that all local governments must establish and maintain a registry of municipal fishers. However until recently, less than five percent of municipal fisherfolk were registered, leaving a big gap in fisheries management and in the government's ability to respond to the needs of small scale fisherfolks, who are often most vulnerable to disasters such as typhoons.

One of the reasons for low registration rates was that the process was cumbersome, requiring fishers

to visit a government office without receiving an immediate benefit in return. USAID has changed that in partnership with the BFAR's FishR. The FishR system provides a simple, convenient, national registration system for municipal fisherfolk that collects data for improved fisheries management and offers fishers benefits in return. Using FishR, 1.2 million fisherfolk were registered in a single year, which is approximately 70 percent of 1.7 million fisherfolk nationwide.

The success of the program has gone beyond simple data collection, fostering trust, improved fisheries enforcement, and benefits to fishers. Several years ago, fishers were suspicious of local fishing authorities. Now, thanks to USAID support for the FishR program, fishers like Jomar Bruce want to be registered. "Being a card-carrying fisher entitles me to fish in [our] waters and participate in work programs," he says. During the low season, he plants mangroves for a program organized by the local government.

### **New Tools in the Tackle Box**

To succeed, FishR needed to extend high-speed wireless internet access to remote parts of the Philippines. The data needs were great, and without high-speed internet access widespread, rapid, and consistent data entry was impossible. USAID, through a partnership with Microsoft, the Philippines Department of Science and Technology, the Philippines Bureau of Fisheries and Aquatic Resources' FishR program, was able to use television white space technology – unused television broadcast frequencies – to deliver high-speed, wireless internet access. The partnership established access hubs in five remote municipalities by installing equipment in a network of 27 public schools and offices. This improved connectivity resulted in a 500 percent increase in fisher registrations in just five months, with one million fisherfolk registered in the FishR database by September 2014.

Local government units now access BFAR's Fisherfolk Registration System directly from the field, enabling municipalities to immediately distribute identification cards to registered fishermen. Law enforcement officers charged with enforcing fishing regulations now have

easy access to registration information, which is an important step towards improved enforcement of catch sizes, fishing permits, and compliance with fishing laws and regulations.

### **Reeling in the Benefits**

In addition to making registration easy, the FishR program has created direct and indirect benefits to Filipino fishing communities. The program provides direct incentives to fisherfolk who register, including livelihoods assistance for the first 100 municipalities that completed registration. **BFAR has collaborated with other government agencies to get 20 percent of 166,000 fisherfolk out of poverty in 2015.** Indirectly, the improvements in internet access have offered a number of benefits. When an earthquake struck in October 2013, the TV White Space network provided emergency communications between villages and played a critical role in supporting major disaster response and relief efforts. Additionally, more than 3,000 school children now have internet access via TV white space and a vision has been created to establish e-knowledge hubs in a range of public institutions, including clinics, public schools and local government centers. Ultimately the most significant success of FishR will be the improvements in fisheries management it enables – allowing improvements in ecosystem health that produce more fish, feed more people, and generate more jobs.



**TUBIGON PHILIPPINES – NOVEMBER 2013:** Wendy Diamse, Municipal Health Officer of Tubigon, connects to the internet through TV White Space to facilitate coordination of relief goods across earthquake-struck Bohol. Photo by USAID

## PROFILE:

# Innovation through landscape-scale conservation: Sustainable Conservation Approaches in Priority Ecosystems project (SCAPES)

No matter how effectively a single protected area, community, or field station is conserved, the scale is often not sufficient to address important drivers of biodiversity loss. Since the late 1990s, USAID has promoted a different model of engagement: working across many land uses and jurisdictions, in ecologically defined landscapes, to affect deeper and longer-term conservation impact. Our flagship global conservation project, Sustainable Conservation Approaches in Priority Ecosystems (SCAPES), represents the culmination of 15 years of Agency programming and learning in landscape- and seascape-scale conservation.

From 2009-2014, SCAPES supported conservation of nine landscapes spanning 19 countries, from the forest slopes of the Andes Mountains to the savannas and steppes of Africa and Asia. Over five years, the project improved the management of 15 million hectares of land in high biodiversity landscapes, an area the size of New York and Rhode Island combined, often by working with local communities and government to improve natural resource governance. The partnership strategically tackled threats to biologically important areas while fostering cross-institutional learning. NGO partners in SCAPES included African Wildlife Foundation (AWF), Wildlife Conservation Society (WCS), World Wildlife Fund (WWF), and a consortium led by Pact, Inc. teamed with Fauna & Flora International (FFI).

## Transboundary Landscape Scale Conservation

SCAPES applied and refined a transboundary landscapes approach, because wildlife and ecosystem services do not recognize political borders. Two partners, AWF and WCS, worked to solve management and policy barriers in the five-nation Kavango Zambezi Transfrontier Conservation Area (KAZA) of southern Africa, where thousands of miles of veterinary cordon fencing prevent the connection of dozens of community-managed lands and protected areas. Maintained since the 1950s to prevent the transfer

of foot and mouth disease between African buffalo and livestock, these fences disrupted migration paths for elephant, zebra and wildebeest and blocked access to important water and grazing for wildlife and livestock. Rural communities were unable to sell cattle to export markets because of international regulations requiring physical separation from foot and mouth disease.

Through the SCAPES project, WCS identified and promoted protocols for field, transport, slaughter, and packaging. Through trade analysis, coordination with national and regional decision makers, and international policy engagement, the KAZA region and other areas are poised to benefit from a decision by the World Organization for Animal Health to allow trade in beef without requiring the physical separation of wildlife and livestock. This change opens up markets to cattle farmers and pastoralists and improves conditions for wildlife in the region – a true “win-win” result.

## Strategic Threat Reduction

On the temperate desert of the Ustyurt Plateau of Uzbekistan and Kazakhstan, the endangered saiga antelope faces threats from poaching for their sought-after horns. SCAPES partner Pact, in collaboration with FFI, the Association for the Conservation of Biology in Kazakhstan, and Customs Control Agency of Kazakhstan established the first-ever sniffer dog program in Kazakhstan. Four Belgian Malinois dogs were trained to detect both drugs and saiga horn. Within two months, these dogs detected two shipments of saiga horn at Kazakh borders.

Saiga face other threats as well. SCAPES partners conducted an analysis of a large saiga die-off of 12,000 animals in 2010, identifying causes and making recommendations to address these events, which have occurred at least 10 times since the 1950s. Studies of migration routes led Kazakhstan to remove the bottom wire from a 138 km border fence with Uzbekistan, overcoming a barrier to movement for the saiga. This research and



**ALMATY, KAZAKHSTAN – 2014: Four sniffer dogs are now trained to detect saiga horn and work with the Kazakh Customs Office to stop wildlife trafficking. Photo by Kirk Olson for FFI**

collaboration helped double the population of saiga in Kazakhstan between 2008 and 2013.

SCAPES' work is now informing the response to the sudden death of 120,000 saiga in May 2015, halving the population. Though a devastating loss, USAID's investment in improved capacity combined with attention to migration needs and poaching threats should improve resilience for saiga and their high desert home.

### **Innovation through Integration**

Working at the landscape scale often requires innovative tools and approaches. In the Sacred Himalayan Landscape of Nepal, India and Bhutan, home to some of the highest peaks on Earth and elusive species like the snow leopard and red panda, climate change and climate variability have emerged as threat multipliers for local biodiversity and livelihoods. WWF, through the SCAPES project, conducted a landscape-level climate change vulnerability assessment along with the Kanchenjunga Conservation Area members and communities. The outcome of this assessment guides local climate change adaptation initiatives, which included the development of local adaptation plans for 10 sites.

Today, more than 4,000 people are benefiting from these adaptation plans, which include considerations for food and water security. Communities now have a sense of stewardship, and local people work to conserve their ecosystems and protect wildlife. Substantial areas of

forests and alpine rangelands are now under sustainable management, and local communities have new, reliable sources of income. Taking an integrated approach to conservation has benefited not only wildlife, but also the human communities that depend on the land for their livelihoods.

### **Learning by Doing**

SCAPES supported an innovative international, cross-landscape learning program. Together, USAID and partners produced a natural resource governance assessment guide to help practitioners understand where the power, legitimacy and capacity for natural resource management lie within a landscape, and target conservation action accordingly. Another tool assists conservationists in incorporating climate change into conservation planning and activities.

The SCAPES approach is effective and leaves an important legacy. Where AWF worked with communities in Zambia, no elephant poaching has been recorded. The policy work carried out by WCS on foot and mouth disease lays the groundwork for broader access to markets and fewer barriers to wildlife movement. SCAPES has influenced the entire Agency conservation portfolio, as USAID and partner staff build the lessons from SCAPES into field programs. The lessons from SCAPES are also reflected in the Agency's first Biodiversity Policy and the Agency handbook for biodiversity programming.

# USAID Funding for Biodiversity and Forestry, FY 2014

Operating Unit	FY 2014 Biodiversity Funding in US\$	FY 2014 Combating Wildlife Trafficking Funding in US\$ <sup>1</sup>	FY 2014 Forestry <sup>2</sup> Funding in US\$	Fund <sup>3</sup> Type
<b>Total Funding for All Operating Units</b>	<b>\$212,509,099</b>	<b>\$55,060,210</b>	<b>\$153,570,283</b>	
Total Funding for Tropical Countries	\$206,759,099	\$53,810,210	\$150,500,283	
Total Funding for Tier One Countries and Regions	\$121,500,000	\$33,014,300	\$73,607,288	
<b>Sub-Saharan AFRICA</b>				
Africa Regional	\$3,365,000	\$300,000	\$0	DA
Central Africa Regional	\$31,000,000	\$14,921,550	\$31,900,000	DA
East Africa Regional	\$3,500,000	\$1,750,000	\$0	DA
Southern Africa Regional	\$6,000,000	\$3,250,000	\$0	DA
West Africa Regional	\$5,250,000	\$625,000	\$11,250,000	DA
Ghana	\$1,600,000	\$0	\$0	DA
Kenya	\$6,000,000	\$2,300,000	\$0	DA
Liberia	\$4,000,000	\$0	\$3,128,061	ESF
Madagascar	\$2,500,000	\$0	\$2,500,000	DA
Malawi	\$2,000,000	\$1,000,000	\$2,000,000	DA
Mozambique	\$4,250,000	\$1,500,000	\$1,000,000	DA
Rwanda	\$2,000,000	\$0	\$2,000,000	DA
South Sudan	\$5,500,000	\$2,000,000	\$0	ESF
Tanzania	\$10,000,000	\$4,500,000	\$1,700,000	DA
Uganda	\$2,500,000	\$2,250,000	\$0	DA
Zambia	\$2,000,000	\$2,200,000	\$5,285,000	DA
<b>Africa Total</b>	<b>\$91,465,000</b>	<b>\$36,596,550</b>	<b>\$60,763,061</b>	
<b>ASIA</b>				
Asia Regional	\$1,644,099	\$950,910	\$0	DA
Regional Development Mission for Asia	\$11,500,000	\$6,250,000	\$695,000	DA
Bangladesh	\$6,000,000	\$1,000,000	\$11,900,000	DA
Cambodia	\$3,000,000	\$0	\$5,845,779	DA
India	\$0	\$0	\$4,000,000	DA
Indonesia	\$15,000,000	\$1,467,750	\$0	DA
Nepal	\$5,000,000	\$1,250,000	\$2,870,000	ESF
Philippines	\$8,500,000	\$1,075,000	\$2,750,000	DA
Vietnam	\$2,500,000	\$2,500,000	\$884,800	DA
<b>Asia Total</b>	<b>\$53,144,099</b>	<b>\$14,493,660</b>	<b>\$28,945,579</b>	

Operating Unit	FY 2014 Biodiversity Funding in US\$	FY 2014 Combating Wildlife Trafficking Funding in US\$ <sup>1</sup>	FY 2014 Forestry <sup>2</sup> Funding in US\$	Fund <sup>3</sup> Type
<b>EUROPE AND EURASIA</b>				
Georgia	\$750,000	\$0	\$200,000	ESF
<b>Europe and Eurasia Total</b>	<b>\$750,000</b>	<b>\$0</b>	<b>\$200,000</b>	
<b>LATIN AMERICA AND THE CARIBBEAN</b>				
Latin America and the Caribbean Regional	\$4,000,000	\$0	\$1,965,028	DA
South America Regional	\$10,000,000	\$0	\$10,365,221	DA
Central America Regional	\$3,000,000	\$0	\$0	DA
Brazil	\$10,500,000	\$0	\$10,500,000	DA
Colombia	\$9,000,000	\$0	\$5,013,189	ESF
Dominican Republic	\$0	\$0	\$50,000	DA
Guatemala	\$4,000,000	\$0	\$1,500,000	DA
Honduras	\$3,500,000	\$0	\$500,000	DA
Mexico	\$0	\$0	\$5,065,000	ESF
Peru	\$5,000,000	\$0	\$7,299,078	ESF
<b>Latin America and the Caribbean Total</b>	<b>\$49,000,000</b>	<b>\$0</b>	<b>\$42,257,516</b>	
<b>CENTRAL BUREAUS</b>				
Bureau for Economic Growth, Education, and Environment				
<i>Office of Forestry and Biodiversity</i>	\$16,150,000	\$3,970,000	\$6,773,475	DA
<i>Office of Global Climate Change</i>	\$0	\$0	\$13,555,652	DA
<i>Office of Land Tenure and Resource Management</i>	\$1,600,000	\$0	\$1,025,000	DA
<i>Office of Planning, Learning, and Coordination</i>	\$400,000	\$0	\$50,000	DA
<b>Central Bureaus Total</b>	<b>\$18,150,000</b>	<b>\$3,970,000</b>	<b>\$21,404,127</b>	DA

Tier One Countries and Regions

<sup>1</sup> All Combating Wildlife Trafficking funding is from biodiversity conservation investments.

<sup>2</sup> Nearly all forestry funding is from forest-focused climate change mitigation and biodiversity conservation investments.

<sup>3</sup> Funding is from one of two accounts: Development Assistance (DA) or Economic Support Funds (ESF).

# Funding Overview

USAID FY 2014 funding for biodiversity, combating wildlife trafficking and forestry activities, by region and operating unit (missions, regional programs, and bureaus), is summarized in the table on pages 14-15. Biodiversity funding is allocated to specific USAID operating units for actions designed to address threats and drivers to biodiversity in priority places. Combating wildlife trafficking is a subset of biodiversity funds that provide direct support to efforts which prevent or reduce poaching and/or illegal trade in wildlife, including terrestrial, freshwater, and marine species. Forestry is a funding attribution for any project that conserves or better manages forests.

International biodiversity conservation programs received \$212.5 million in FY 2014 funding, supporting projects in nearly 50 countries. Approximately 57 percent of funds went to 12 high-priority countries and regions described as “Tier One” in USAID’s Biodiversity Policy, including Kenya, Indonesia, and some countries in the Amazon and Congo basins. All USAID biodiversity programs meet strict criteria to ensure that activities are strategic and accountable for achieving conservation outcomes in biologically significant areas (see <http://www.usaid.gov/biodiversity/impact/requirements> for more details). Programs apply and develop best practices in conservation, including rigorous monitoring and evaluation in support of adaptive management.

In addition to these direct biodiversity allocations, more than \$35 million in FY 2014 funding for other priorities indirectly contributed to biodiversity conservation. For example, various climate change adaptation programs manage and protect watersheds, preserve marine fisheries, and conserve mangrove forests. Sustainable forest management, including activities to address illegal wood harvesting, as well as climate-smart land use planning, also contribute to biodiversity conservation.

USAID invested more than \$50 million in FY 2014 funds to combat wildlife trafficking, more than doubling the \$24 million FY 2013 investment. USAID is helping communities manage wildlife by providing training, equipment and new technologies and supporting the development of new policies at the national level. Agency partners work with law enforcement and the

judiciary, resource managers, community organizations, and policymakers to prevent poaching of endangered species, improve enforcement and prosecution, disrupt transit, and reduce consumer demand in Africa and Asia.

In FY 2014, USAID forestry programming totaled \$153 million in about 40 countries, of which \$150 million was focused on tropical forests. The majority (94 percent) of forestry activities advanced biodiversity conservation or climate change mitigation objectives, using funds allocated to meet the congressional funding requirement for Biodiversity or the Sustainable Landscapes pillar of the Agency’s Global Climate Change portfolio. This includes sustainable forest management projects that address deforestation and forest degradation, as well as improving governance of natural resources and strengthening local livelihoods. Other forestry activities, including programs to increase resilience to the impacts of climate change, account for approximately \$8.6 million in forestry programming. This includes forest and wetland conservation and urban forestry activities through the Global Climate Change Adaptation portfolio.

In addition to programs, USAID manages two whole-of-government efforts related to forests. The Agency hosts the Enterprise for the Americas Initiative (EAI) and Tropical Forest Conservation Act (TFCA) Secretariat; the programs are managed in partnership with the Departments of State and Treasury. Through 2014, twenty TFCA agreements and eight EAI agreements had been concluded with 16 countries. Together, these programs have generated or will generate more than \$516 million to support environmental protection and tropical forest conservation activities. USAID also leads the Tropical Forest Alliance 2020 (TFA 2020), a public-private partnership to reduce the tropical deforestation associated with the sourcing of commodities such as palm oil, soy, beef, and paper.



**SACRED HIMALAYAN LANDSCAPE, NEPAL – JUNE 2014:** This improved trekking trail in Nepal's Kangchenjunga Conservation Area helps connect visitors to the community forest managed by local people. USAID supports sustainable management of forests and alpine rangelands that conserve biodiversity and improve livelihoods. Photo by Manan Karki for USAID

**BACK COVER: LAKE UREMA, MOZAMBIQUE – MAY 2015:** USAID has partnered with the Government of Mozambique, conservation leaders, and reporters to better combat wildlife trafficking and preserve biodiversity. Photo by Nathan Gregory for USAID



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