



USAID
FROM THE AMERICAN PEOPLE



BIODIVERSITY CONSERVATION AND FORESTRY PROGRAMS

2016 REPORT

FISCAL YEAR 2015 RESULTS AND FUNDING



NEAR LAKE MALAWI, NOVEMBER 2015: Staff from USAID's fisheries conservation program advising local fishermen on how to reduce post-harvest losses. Photo by Maggie Dougherty, Pact

ABOUT THIS REPORT

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

Section 118 of the FAA notes concern about the “continuing and accelerated alteration, destruction, and loss of tropical forests in developing countries, which pose a serious threat to development and the environment, and 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 possible.

Section 119 of the FAA finds that “the extinction of animal and plant species is an irreparable loss with potentially serious environmental and economic consequences for developing and developed countries alike. Accordingly, the preservation of animal and plant species through the regulation of the hunting and trade in endangered species, through limitation 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 forestry and biodiversity activities is based, in part, on these analyses.

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JULY 2016

FRONT COVER: PHNOM PRICH WILDLIFE SANCTUARY, CAMBODIA, 2015: Members of a research team conducted the country's largest ever elephant survey across three protected areas in Mondolkuri Province by collecting DNA from dung. USAID training and equipment helped 164 community rangers conduct more effective patrols to protect wildlife and habitat, leading authorities to arrest 78 offenders and issue 176 warning letters. Photo by Rachel Crouthers, USAID

INTRODUCTION

“Preserving biological diversity is a vital part of our compact with each other and the planet that nurtures us.”

– Ban Ki-moon, Secretary General, United Nations

In September 2015, world leaders gathered to adopt the 2030 Agenda for Sustainable Development, which comprises 17 new Sustainable Development Goals (SDGs) intended to guide international development policy and funding for the next 15 years. At around the same time, USAID initiated a suite of efforts to document and promote conservation as a development approach, a priority established in the Agency’s Biodiversity Policy in 2014. Conserving biodiversity in the sea and on land is a focus of SDGs 14 and 15, respectively. Indeed, biodiversity underpins other SDGs related to poverty, health, food security, economic growth, peace, and gender equality, among others.

USAID has been advancing development objectives through conservation programs for more than 25 years. However, to implement the Biodiversity Policy, cross-sectoral working groups and evidence analysis on integration began in earnest last year. This report highlights some of the results of recent investments, and the importance of how conservation is done with respect to building prosperity, security, and partnerships.

Prosperity

Natural systems sustain global development and supply clean water, fertile cropland, resilience to disasters, and natural protections against disease. When these systems are depleted and biodiversity is low, humans are more vulnerable to changes in their environment. Integrating biodiversity values into planning and decisions by other development sectors helps people make more informed choices about what they eat, when they harvest, and where they build. “Adding it Up: Tools to Improve Infrastructure and Conserve Biodiversity,” a profile on page 10 in this report, describes how one project

helped officials in Uganda use cost-benefit analysis to decide against building a road through a key protected area that is home to half of the world’s critically endangered mountain gorillas.

USAID also works to support conservation that promotes local communities. For example, community co-management committees in Bangladesh collected more than \$150,000 in revenue from park entry fees from six protected areas while protecting critical habitat for Bengal tigers in the Sundarbans. Work continues to expand revenue sharing from entry fees as well as non timber products. More examples of this kind of work may be found in the “Notable Results” section of this report.

Security

Wildlife crime was once considered a victimless crime — bad for the environment, but not often taken seriously by police or courts in the countries where wildlife is illegally hunted or sold. World opinion has

changed, recognizing wildlife trafficking as a destabilizing force that benefits organized crime networks and armed non-state actors, and where people die trying to poach or protect endangered species. Through training for law enforcement and campaigns that reduce demand for wildlife products, USAID programs generate two valuable dividends: increased security and improved rule of law. “Protecting Tigers with Project Predator,” a profile on pages 8-9 of this report, provides an in-depth look at how USAID helps countries fight wildlife crime and, as a consequence, hold criminals and law enforcement authorities more accountable.

USAID's portfolio for combating wildlife trafficking has grown from \$13 million in FY 2012 to more than \$68 million in FY 2015, and generated encouraging results. Last year, USAID supported training for more than 1,000 law enforcement officials across Asia and Africa, which has contributed to the arrests of 500 poachers and traffickers. Details from specific programs are included in the “Notable Results” section of this report.

Partnerships

Working at the scale needed to reduce threats to biodiversity in a meaningful, sustained way requires a multifaceted effort. USAID develops partnerships that bring together a host of actors, resources, knowledge, and experience to leverage and magnify its impact on conservation and development challenges. One such partnership is the Forest Legality Alliance, a multi-stakeholder initiative led by the World Resources Institute with support from USAID and companies in the forestry and forest products sector. The Alliance's goal is to reduce illegal logging by better documenting the supply of legal forest products. More on this innovative partnership may be found in “Tackling Illegal Logging: The Forest Legality Alliance,” a profile found on pages 12-13 of this report.

Fighting wildlife crime is another area where collaboration is essential. In 2015, just as UN members were adopting the 2030 Agenda for Sustainable Development, USAID launched a partnership with

representatives from key transportation and logistics companies to keep passengers and clients from transporting wildlife products on commercial air carriers. This effort is already demonstrating results, as the 2016 General Meeting of the International Air Transport Association endorsed a resolution denouncing the illegal trade in wildlife and wildlife products and pledging to partner with authorities and conservation organizations in the fight against wildlife crime.

USAID's Biodiversity Policy recognizes both the intrinsic value of biodiversity and its importance to human well-being. USAID's integrated approach to biodiversity conservation meets complex problems with comprehensive solutions. Together with its partners, USAID gets to the root causes of multiple development challenges, and fosters solutions that benefit nations by building, not undermining, local rights and natural capital.



MOZAMBIQUE, 2016: As part of efforts to improve sustainability in communities around Gorongosa National Park, these “model moms” are helping young mothers grow kitchen gardens, prepare healthful meals, and understand the importance of good nutrition for brain and body development. Photo by Andrew Tobiason, USAID

NOTABLE RESULTS

USAID field conservation programs in 2015 **improved natural resource management across more than 75 million hectares in high biodiversity places**, an area about the size of Montana, North Dakota, and South Dakota combined. The Agency supported training in natural resources management and/or biodiversity conservation for about 100,000 people. As a result of USAID's programs, at least 800,000 people gained improved economic benefits around the world. Additionally, 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 50 percent of USAID funding be spent in Tier One missions. 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 of this report. Tier One status will be reviewed and aligned with ongoing USAID priorities as new data on global biodiversity are released. By targeting our resources in areas with critical biodiversity, the Agency works more effectively to support host country conservation and development priorities.

In 2015, 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 2015 illustrating the work USAID supports around the world is captured by region on the following pages. Land conservation activities are reported in hectares, equivalent to 2.471 acres. In addition, three profiles provide depth on some of USAID's signature approaches, including working in partnership for biodiversity and forest conservation, combating wildlife trafficking through improved law enforcement and taking an integrated approach to biodiversity conservation through economic tools.

With USAID assistance in 2015:

LATIN AMERICA AND CARIBBEAN

- 1** Sustainably managed, certified mahogany from **Guatemalan** community forest concessions earned a price increase of 30 to 35 percent from North American guitar producers participating in new trade alliances, benefiting local communities with increased income.
- 2** **Guatemala** inaugurated its first Environment Court to hear cases related to environmental and archaeological crimes and launched a Prosecutor's Office for Crimes against the Environment. The Court and Prosecutor's Office both promote environmental justice in the Maya Biosphere Reserve to safeguard threatened flora and fauna.
- 3** In **Honduras**, ecotourism and sustainable coffee, cacao, and sugar cane production netted 770 new jobs, \$7.1 million in total new net sales, and \$2.8 million in new investments in these conservation-friendly enterprises.
- 4** A small fishing cooperative in **El Salvador** is now a provider of sustainably caught seafood to Wal-Mart. Fisherman groups recorded more than \$1 million in sales in only six months, a strong incentive that is transforming fishing practices and conserving Central America's marine biodiversity.



5 In **Haiti**, local farmer training on linkages between protected and forested areas and environmental services conserved more than 2,700 hectares and established sub-watershed management committees.

6 Farmers in two of **Haiti's** development corridors helped restore water recharge and soil retention by planting more than 145,000 trees on steep hillsides degraded by erosion from agriculture. These areas also help preserve habitats of critical species in key development corridors.

7 The Smithsonian Institution has developed technology to improve the traceability of fish sold by Afro-**Colombian** associations to restaurants and food distributors from major Colombian cities. Users can make more informed decisions about the fish they buy by scanning a code with their mobile device.

8 A paralegal training program on indigenous rights, land tenure, and land titling in **Colombia, Ecuador¹**, and **Peru** has increased the capacities of 15 indigenous organizations to resolve land disputes and helped communities secure almost 100,000 hectares of indigenous lands.

9 In **Peru**, three district-level governments located around Bahuaja Sonene National Park created municipal action plans supporting regional and national biodiversity goals.

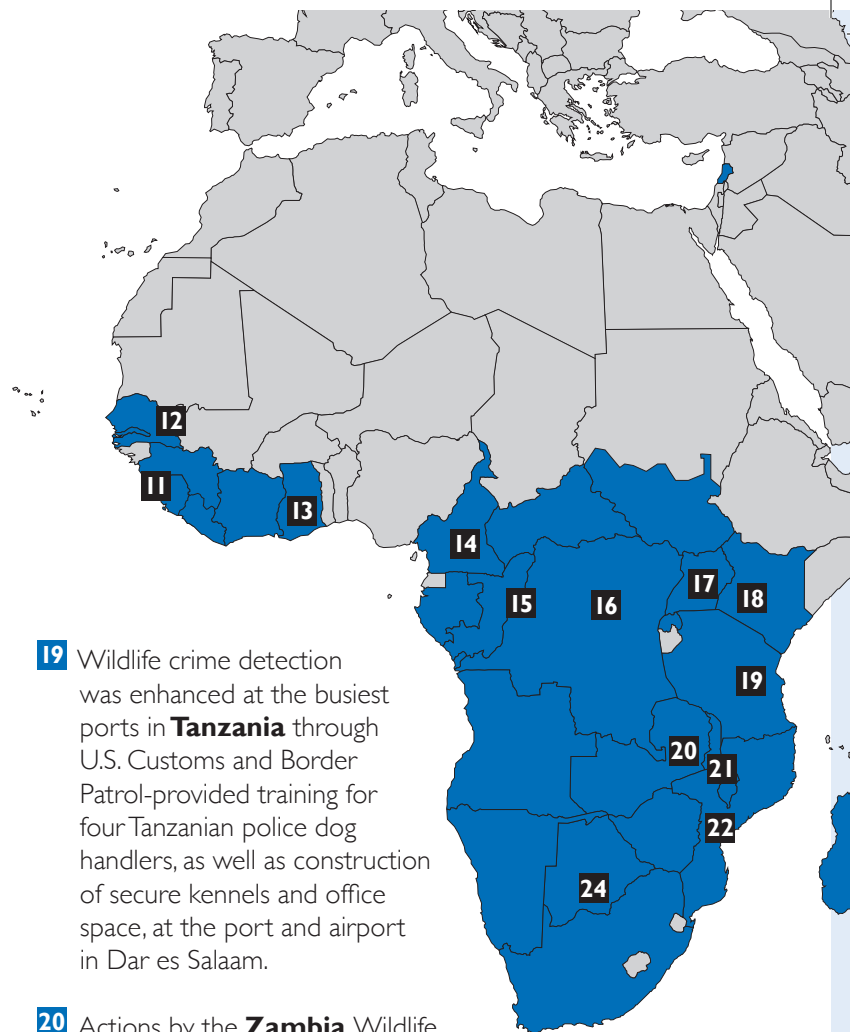
10 Thirteen research projects from **Brazilian** universities working in collaboration with U.S. universities and research centers focused on studying the impact of climate and human activities on select species of Amazonian flora and fauna and their ability to adapt to the effects of climate change.

¹ As the USAID/Ecuador mission was preparing to close in September 2014, USAID made a decision to continue limited environment programming in regional diversity (ICAA) and climate change (Net Zero Deforestation) until September 2016 using FY 2013 and earlier funds. No funding went to the Government of Ecuador.

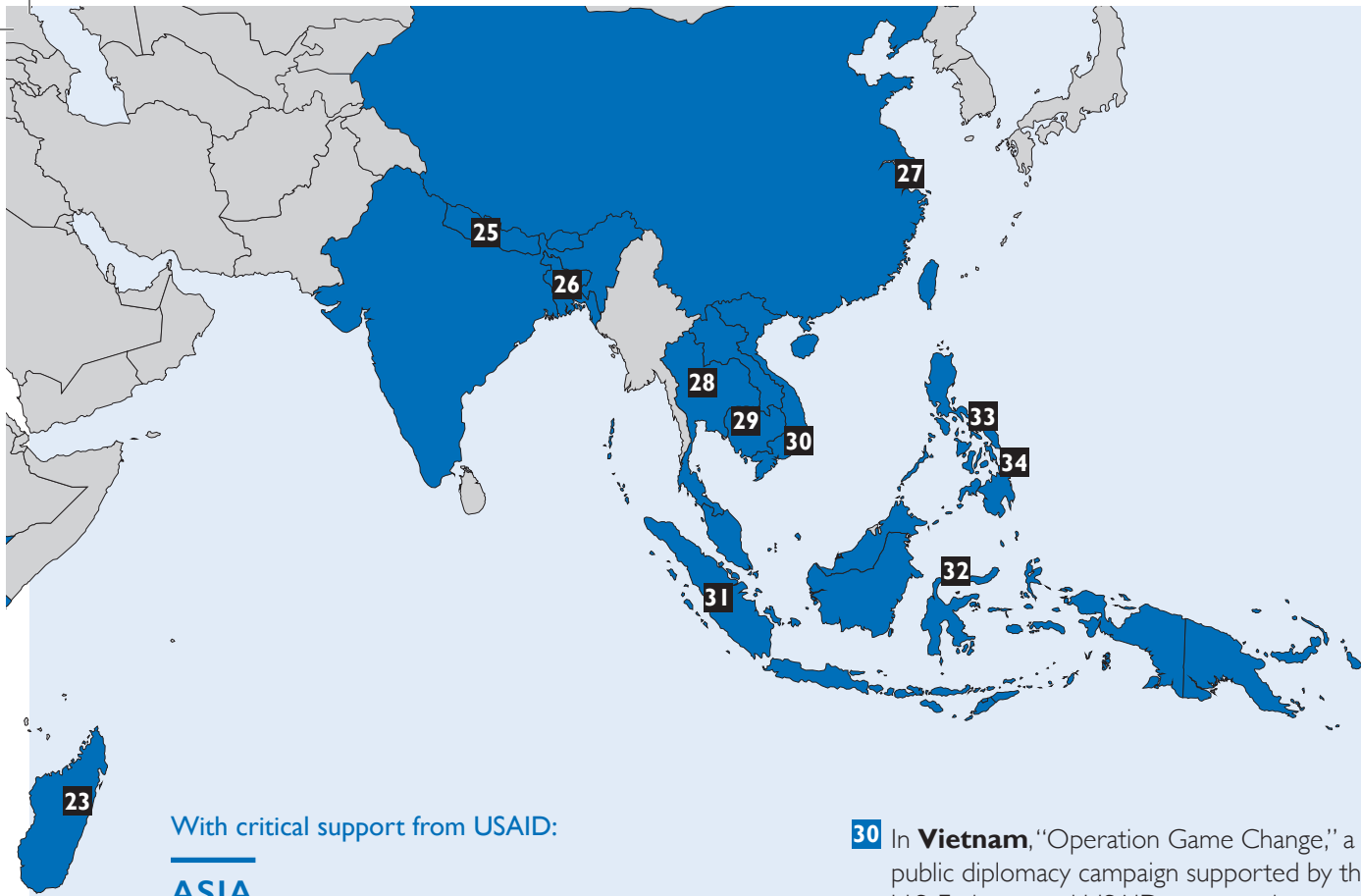
With critical support from USAID:

AFRICA

- 11 Nearly 100 Village Savings and Loans Associations in 49 communities in **Guinea** and **Sierra Leone** empowered women to play a leading role in financial decisions related to community forest management.
- 12 Training in business and marketing skills as well as improved fish processing techniques helped increase the value of the fish produced and sold by the 7,000 women working as wholesale fishtraders and processors in **Senegal**, raising incomes and empowering women while generating more sustainable fisheries
- 13 Investments in research and law enforcement capacity improved management of marine fisheries in **Ghana**, where fish account for approximately 60 percent of animal protein in local diets.
- 14 At courses in **Kenya** and **Cameroon**, customs authorities in 22 African countries received specialized training in detecting endangered and regulated species in trade, customized to needs identified for each country.
- 15 More than 100 investigators and prosecutors from **Republic of Congo** and **Democratic Republic of Congo** were trained in conservation laws and judicial procedures, helping ensure that punishments are commensurate with wildlife crime.
- 16 In eight landscapes in **Central Africa**, better equipped rangers on more targeted patrols expanded coverage by up to 50 percent and destroyed or seized 1,800 snares and 2,800 firearms while apprehending 416 poachers.
- 17 **Ugandan** wildlife and forestry officials used current, accurate data to inform management decisions, enabling more targeted patrols for improved park and forest management, thanks to 106 staff receiving training and equipment for improved monitoring.
- 18 Community conservancies in northern **Kenya** expanded their network and leveraged more than \$11 million in private sector funding. Member conservancies earned \$1.65 million from conservation enterprises and recorded a 35 percent reduction in elephant poaching and a 78 percent reduction in rhino poaching compared to the previous year thanks to better trained and equipped community patrols, increased conservation education campaigns, and new ranger outposts.



- 19 Wildlife crime detection was enhanced at the busiest ports in **Tanzania** through U.S. Customs and Border Patrol-provided training for four Tanzanian police dog handlers, as well as construction of secure kennels and office space, at the port and airport in Dar es Salaam.
- 20 Actions by the **Zambia** Wildlife Authority's Investigations and Intelligence Unit resulted in the arrest of 162 individuals and confiscation of more than 650 kg of ivory, 18 pangolins, and 30 rifles.
- 21 Good forest management by communities around three protected areas in **Malawi's** Kulera Landscape generated \$500,000 in carbon funds, reinvested in local conservation and development priorities.
- 22 In **Mozambique**, 100,000 mangrove seedlings helped restore a 10-hectare coastal area critical for a wide variety of fish and commercially important species of crab, shrimp, and mussels.
- 23 In **Madagascar**, better law enforcement monitoring by community members and national park staff increased the total area covered by patrols in and around Masoala and Makira National Parks, resulting in significantly reduced forest clearing and burning.
- 24 **Botswana** put in place wildlife monitoring systems and protocols essential to preventing poaching and human-wildlife conflict in the Okavango Delta. Data from nearly 50 private reserves and game farms is collated in a web portal and used by authorities to monitor several species in the two million hectare conservation area, including the largest population of elephants in the world.



With critical support from USAID:

ASIA

- 23** In **Taiwan**, USAID-supported projects have helped improve the lives of people in rural areas through support of improved sustainable forest management practices, efforts to reduce human-wildlife conflict, and clean energy solutions. Women that frequently entered the forest to collect fodder and fuelwood now have safer ways to provide for their families.
- 25** Crop and property damage from wildlife was significantly reduced in forest dependent communities in **Nepal** through support of improved sustainable forest management practices, efforts to reduce human-wildlife conflict, and clean energy solutions. Women that frequently entered the forest to collect fodder and fuelwood now have safer ways to provide for their families.
- 26** In **Bangladesh**, a local non-profit organization employed more than 2,000 rural women in new jobs making fair-trade products as an alternative to harvesting natural resources for income.
- 27** Prominent Chinese key opinion leaders from government, business, media, entertainment and grassroots society signed on to promote a wildlife consumer demand reduction campaign reaching 2.6 million subway passengers daily.
- 28** In **Thailand**, the USAID-supported Fin Free Thailand campaign reached a milestone in 2015, with a total of 180 dining establishments pledging not to serve shark fin soup or other dishes containing shark.
- 29** In **Cambodia**, remote forest communities generated an average of \$850 per hectare per year from harvesting and selling sustainable wood for wooden poles and firewood, making the forest worth more intact than if it were cleared for agriculture.
- 30** In **Vietnam**, "Operation Game Change," a year-long public diplomacy campaign supported by the U.S. Embassy and USAID, among others, reached out to students from wealthy families most likely to consume rhino horn as medicine. USAID-supported monitoring in major cities indicates a decrease in consumer wildlife crime from 2014 levels.
- 31** **Indonesian** authorities arrested wildlife smugglers at Jakarta's international airport, rescuing more than 7,000 rare pig-nosed turtles. This arrest followed an integrated justice sector training workshop that included judges, prosecutors, police, civil investigators, and local airport representatives.
- 32** To strengthen regional collaboration in sustainable fisheries management and counter illegal, unreported, and unregulated fishing, partners in the **Coral Triangle** made progress developing an electronic catch documentation and traceability system to track species at high risk of being illegally traded or mislabeled.
- 33** In the **Philippines**, training in basic financial literacy for members of the Tagbanuas indigenous group helped them manage their sustainable fisheries area, which is now generating about \$355,000 annually from user fees.
- 34** Also in the **Philippines**, a maritime crime hotline developed through a public-private partnership generated 3,000 reports in six months, which led to 25 arrests for wildlife contraband worth more than \$100,000.

PROFILE: PROTECTING TIGERS WITH PROJECT PREDATOR



INDIA: Bengal tiger in the wild. Photo © Bhiswajit Roy Chowdhury, courtesy of INTERPOL

A Ticking Clock for Tigers

Tigers are facing extinction. A century ago, there may have been more than 100,000 tigers throughout Asia. Today, there may be as few as 3,500 tigers remaining in the wild today. The greatest current threat to Asian big cat survival is organized criminal groups who control the burgeoning and highly lucrative illicit trade. These highly coordinated and armed operations cross international boundaries, control strong supply chains, and connect the source, transit, and destination countries for illegal wildlife products. Because of this sophisticated system, it is impossible for any one country to tackle the crime alone.

To ensure a future for tigers and other Asian big cats, USAID began supporting INTERPOL's Project Predator in 2011 to dismantle criminal networks trafficking in

illegal tiger products, joining the World Bank, the United Kingdom's Department of Environment, Food, and Rural Affairs, and the International Fund for Animal Welfare in support of the Global Tiger Initiative. In most wildlife crime cases, law enforcement officials apprehend low level poachers. However, it is only by prosecuting the principals controlling the illegal wildlife product supply chain that these criminal networks can be dismantled. Project Predator improves the capacity of police and other authorities to identify, investigate, and locate key wildlife criminals. INTERPOL provides policing expertise, but not police, to fight terrorism, cybercrime, and organized and emerging crime, by training law enforcement officers, analyzing supply chains, and facilitating transnational operations conducted by 190 member countries.

Training for Results

While law enforcement staff may be quite familiar with procedures for investigating crimes involving theft, violence, and drugs, they may not have any experience with wildlife crime. INTERPOL's Project Predator has trained officers in tiger and snow leopard areas on standard techniques in enforcement, crime scene investigation for poaching incidents, and intelligence gathering. In addition, Project Predator works to link information systems from rangers and police to prosecutors and judiciary to ensure connectivity from investigation to arrest to prosecution to sentencing. These trainings have resulted in the establishment of a strong transboundary network of enforcement officers across the tiger and snow leopard range areas.

In FY 2015, Project Predator trainees organized Operation PAWS (Protection of Asian Wildlife Species) to target wildlife crime and criminals across Asia through multi-agency collaboration and systematic intelligence exchange and analysis. PAWS involved 13 tiger range countries and led to the arrest of more than 120 wildlife criminals, in addition to revealing the location of 25 wildlife crime fugitives. Through PAWS, officers seized 26 tiger skins and parts, 50 common and clouded leopards, 12 big cat skins, 83 bears and parts, more than 13 tons of ivory, 37 rhino horns, 2,000 turtles and reptiles, 282 pangolins, 5 tons of pangolin meat, and more than 600 pounds of pangolin scales.

Due to this focus on training officials in law enforcement, sharing intelligence, and coordination in operations, the rate of tiger seizures increased, showing that these efforts better enable officials to do their jobs effectively. In fact, a recent study by the wildlife trade monitoring network TRAFFIC analyzing the number of tiger seizures from 2000 to 2015 found that nearly half of all seizures in that period occurred from 2012 to 2015, a period in which Project Predator ramped up trainings and information exchange on tiger crime.

International Cooperation

Countries often work in silos when investigating criminals and networks, not knowing that another country has intelligence and evidence that could help identify, apprehend, or sentence criminals. USAID assistance allowed INTERPOL to facilitate a joint investigative support meeting with India and Nepal that

allowed these countries to clearly map out different networks facilitating the tiger trade between India and Nepal and identify the priority targets that need to be arrested to dismantle these networks.

One of the people of interest identified was Raj Kumar Praja, a Nepalese national wanted for poaching of 19 rhinos in Nepal. In November 2013, Nepal requested that INTERPOL issue a "red notice" calling for his arrest. Immigration checks revealed that Praja had entered Malaysia with a valid work permit and later acquired a new passport with a different name. Under Project Predator, INTERPOL coordinated information exchange between Nepal and Malaysia for more than a year, until Praja was located and arrested by Malaysian authorities in January 2015. He was deported back to Nepal and is currently serving a 15-year sentence for wildlife poaching.

A Future for Tigers

Conservation and habitat management are not enough to assure a future for wildlife threatened by demand for illegal wildlife products. A strong professional law enforcement response, with a clear focus on investigation of criminals and networks, is essential to ensuring the survival of endangered Asian wildlife species. INTERPOL's Project Predator, with the support of USAID, will continue to prioritize and facilitate efforts to dismantle transnational criminals and networks operating in Asia.



SINGAPORE, 2015: Rhino horns and tiger claws confiscated by authorities participating in Operation PAWS II, organized with assistance from Project Predator. Photo © AVA, Singapore, courtesy of INTERPOL

PROFILE: ADDING IT UP: ECONOMIC TOOLS TO IMPROVE INFRASTRUCTURE PLANNING AND CONSERVE BIODIVERSITY

In April 2012, Stephen Asuma, Uganda Country Coordinator for the International Gorilla Conservation Programme, received an announcement about a training course in economic tools to support biodiversity conservation in the Albertine Rift. He decided to apply — a decision that would lead to a three-year collaboration and produce a groundbreaking economic study to protect mountain gorillas in Uganda’s Bwindi Impenetrable National Park while ensuring secure livelihoods for communities dependent on tourism incomes. USAID recognizes that a biologically diverse environment and robust natural resources are critical to ending extreme poverty in countries like Uganda, where poverty directly influences decisions about natural resource use on a daily basis.

The course, “Economic Tools for Conservation and Infrastructure Planning in the Albertine Rift,” was being offered by Conservation Strategy Fund (CSF) as part of USAID’s Biodiversity Understanding in Infrastructure and Landscape Development (BUILD) Program. Stephen’s application emphasized that “... we conservationists need to be able to understand principles of economics and development work. We need to be able to quantify and monetize the value of natural resources ... to be able to strongly articulate the case for nature so that the planners and decision-makers understand and appreciate the call for sustainable development.”

At the two-week course, Stephen was joined by government, civil society, media, and academic colleagues from throughout the Albertine Rift region to learn about economic incentives for natural resource management, economic drivers of environmental problems, environmental valuation methods, cost-benefit analysis of projects and policies,

and communication and negotiation techniques. After the course, CSF invited proposals from course graduates for follow-up analysis of priority biodiversity and infrastructure issues in the region.

Stephen and his colleagues at the International Gorilla Conservation Programme were deeply concerned about a proposed road project that would pass through Bwindi Impenetrable National Park, a globally recognized UNESCO World Heritage Site that is refuge for almost half the world’s population of critically endangered mountain gorillas, and one of Uganda’s main tourist attractions. Previous studies suggested that if the road were upgraded, the gorillas would actively avoid the area near the road, and would have higher mortality from disease, poaching, and vehicle collisions. Stephen explained the situation in his proposal to CSF: “An alternative route has been identified that would serve the local community better through providing access to services to a greater number of people, albeit that the route would be longer and therefore a financially more expensive alternative. Currently, there is no comprehensive information for decision-makers on which option is economically the most suitable.”

The road analysis showed that two road alternatives would have a better overall economic performance than upgrading the existing route through the park, despite having higher up-front costs. Not only do the alternative routes present lower overall risks to the gorilla population, they also provide thousands more people with access to important services like healthcare and education. **When the potential loss of tourism revenue due to reduced gorilla populations — up to \$214 million over 20 years — is included, upgrading the road through the park actually costs twice as much as the alternatives.**



BWINDI IMPENETRABLE NATIONAL PARK, UGANDA, 2014: Stephen Asuma, right, and another student in the USAID-funded Economic Tools for Conservation and Infrastructure Planning course walk one of the roads proposed for improvement in Bwindi Impenetrable Park. Photo by Conservation Strategy Fund



BWINDI IMPENETRABLE NATIONAL PARK, UGANDA, NOVEMBER 2004: Bwindi is home to nearly half of the world's gorilla population. Photo by Amy Pokempner, Wildlife Conservation Society

As coordinator of the International Gorilla Conservation Programme's strategic engagement with government and civil society partners, Stephen understood the importance of involving key stakeholders from the outset of the project. He traveled to the Bwindi region to train data collectors and discuss the project with local community members and authorities. Stephen and CSF representatives also met several times with the Uganda National Road Authority, Uganda Wildlife Authority, National Environmental Management Authority, and Uganda Poverty and Conservation Learning Group to discuss the project and to share preliminary results.

Thanks to the analysis as well as strong consultation and communication throughout the project, the Uganda National Road Authority expressed openness to considering the alternative routes. Importantly, the Uganda Poverty and Conservation Learning Group endorsed the results of the analysis at a stakeholders meeting in early 2015, stating that they "...believe that the development of a road outside [the park] presents the potential for a win-win outcome. Local economic development will be supported in the short and long-term, opportunities for communities to engage in and benefit from

tourism will increase, risks to gorilla tourism and related revenues will be avoided, and the biodiversity and cultural values of [the park] will be conserved." The fate of this road has not yet been decided, but the fact that the route through Bwindi Impenetrable National Park has been stalled and the Ugandan National Roads Authority is open to considering alternatives is a powerful result in itself. The study has been widely disseminated via meetings with local communities and politicians, and Stephen and his colleagues remain hopeful that the stark economic realities revealed by this study will sway decision-makers in the direction of the alternative routes, thereby protecting some of the world's last remaining gorilla habitat.

USAID's Biodiversity Policy released in 2014, emphasizes not only targeting our efforts in strategic places, but also integrating biodiversity and other development sectors for more effective outcomes. Support of the Conservation Strategy Fund's training in economic tools for conservation and infrastructure planning in Uganda and other locations is an excellent example of how such tools can benefit biodiversity and local people.

PROFILE: FOREST LEGALITY ALLIANCE: TACKLING ILLEGAL LOGGING “FROM SEED TO SONG”



PETEN, GUATEMALA, 2015: Staff from Custosel, a community-based company that holds a forest management concession in the Peten, Guatemala, pilot-test the TreeTag app. Photo by Andrew Dudley, Earth Observation Inc.

Back in 2014, U.S. guitar maker and entrepreneur Tom Bedell had a problem. He needed to ensure that his raw material was from legal and sustainable sources to comply with his company's “from seed to song” philosophy and brand. How could he demonstrate that the mahogany he was sourcing from Guatemala's Petén rainforest was legally harvested? Furthermore, how could he be sure that the wood arriving at his workshop in Oregon was actually the same wood cut in the

Petén? Illegal logging — and fraud to cover it up — are not uncommon in remote places, and the paperwork accompanying timber shipments is often questionable.

Seeking a solution, Tom turned to a unique USAID public-private partnership, the Forest Legality Alliance (FLA). The FLA put Tom in contact with a California-based start-up with a mobile phone-based app called TreeTAG. The app provides a timber tracking system

that seemed to be just what Tom needed to trace his products “from seed to song,” so Bedell Guitars agreed to serve as the first TreeTAG pilot-test company. This support allowed the TreeTag team to begin designing a system that provided supply chain accountability for timber products and the forest communities that produce them. The Guatemalan government, which had recently launched a national-level online timber tracking system, has since signed a memorandum of understanding with TreeTAG and U.K.-based remote sensing company Astrosat to cooperate in testing technology applications to strengthen traceability.

USAID’s support for the FLA, entrepreneurs, and civil society working together to tackle illegal logging in Guatemala has leveraged resources, cooperation, and action worth many times USAID’s investment.

From Policy to Public-Private Partnerships

This story is just one of the many innovative partnerships and initiatives catalyzed by the FLA, which was created in response to the 2008 amendment of the Lacey Act, which made it a crime to import illegally harvested timber into the United States. By the end of the project in September 2016, USAID’s nearly \$6.5 million investment in the FLA will have leveraged more than \$13 million in in-kind and cash support. During its seven years of operation, the FLA has grown from 10 to 127 members, including major consumer goods and wood products companies, musical instrument manufacturers, and large and small non-governmental organizations, as well as certification, auditing, and service-providing bodies and companies.

Much of the FLA’s success can be attributed to its semi-annual Members’ Meetings, which have attracted not only the FLA private sector and NGO members but also numerous representatives of the United States and other governments, and international institutions such as the World Bank, International Tropical Timber Organization, and UN Food and Agriculture Organization.

Going Global and Innovative

As other entities and countries, including the European Union and Australia, have adopted demand-side illegal logging legislation similar to the amended Lacey Act, supply-side countries such as Indonesia, Peru, and

nations of the Congo Basin have stepped up their own efforts to combat illegal logging. At the same time, global timber processing giants like China and Vietnam have also begun to accept responsibility for ensuring the legality of the global timber trade. Hence, the focus of the FLA has become more international and now includes close cooperation with relevant authorities and stakeholders in key timber trade countries around the world. To serve its growing number of stakeholders, the FLA has developed a series of practical tools to assist forest product companies in ensuring the legality of their supply chains.

For example, the FLA resources have enabled the development, field-testing and dissemination of innovative technologies to detect and prevent illegal logging and associated trade, which will continue after USAID support ends. The United States is a leader in the development of most of these technologies, which include everything from high-resolution remote sensing to drones; wood identification using DNA, near-infrared, and stable isotope methods; and a variety of approaches that adapt smart-phone and other technologies to more effectively track wood from forest to consumer.

Adaptations of approaches and activities pioneered by the FLA are being developed in Indonesia, China, Mexico, the Republic of Congo, Brazil, and other countries around the world. Though USAID’s support to the FLA is winding down in 2016, World Resources Institute has leveraged future support from a variety of donors to continue and build on the work and the partnerships that the Alliance has catalyzed. Illegal logging has yet to be eradicated, but the FLA has played an essential role in reducing this damaging practice. The FLA contributed to longstanding U.S. foreign assistance goals including biodiversity conservation, promoting a level playing field for legal forests products trade, and promoting good governance.

At a FLA workshop on supply chain traceability in early 2016, the FLA’s director played *The Song of the Jungle* on the first Bedell Guitar to be built from mahogany traced by the TreeTag system. Through support for collaborations like the FLA, USAID is supporting biodiversity through policy work, innovative approaches and partnerships with the private sector around the world.

USAID FUNDING FOR BIODIVERSITY, COMBATING WILDLIFE TRAFFICKING, AND FORESTRY, FY 2015

OPERATING UNIT	FY 2015 BIODIVERSITY FUNDING IN US\$	FY 2015 COMBATING WILDLIFE TRAFFICKING FUNDING IN US\$ ¹	FY 2015 FORESTRY FUNDING IN US\$ ²	ACCOUNT ³
Total Funding for All Operating Units	\$250,000,000	\$67,697,153	\$140,327,868	
Total Funding for Tropical Countries	\$245,000,000	\$67,697,153	\$137,827,868	
Total Funding for Tier One Countries and Regions	\$142,625,000	\$40,043,807	n/a	
SUB-SAHARAN AFRICA				
Africa Regional	\$2,000,000	\$500,000	\$400,000	DA
Central Africa Regional ⁴	\$39,400,000	\$21,656,756	\$16,812,095	DA
East Africa Regional	\$4,000,000	\$1,750,000	\$0	DA
Southern Africa Regional	\$8,000,000	\$5,250,000	\$100,000	DA
West Africa Regional	\$8,250,000	\$3,000,000	\$5,164,000	DA
Ghana	\$1,850,000	\$0	\$0	DA
Kenya	\$6,000,000	\$1,500,000	\$555,000	DA
Liberia	\$4,000,000	\$0	\$4,000,000	ESF
Madagascar	\$8,000,000	\$0	\$4,200,000	DA
Malawi	\$3,000,000	\$1,605,846	\$3,000,000	DA
Mozambique	\$6,000,000	\$3,800,000	\$0	DA
Senegal	\$2,000,000	\$0	\$0	DA
South Sudan	\$5,500,000	\$2,512,500	\$2,200,000	OCO
Tanzania	\$10,000,000	\$4,500,000	\$2,300,000	DA
Uganda	\$4,500,000	\$500,000	\$0	DA
Zambia	\$3,000,000	\$2,000,000	\$4,900,000	DA
Sub-Saharan Africa Total	\$115,500,000	\$48,575,102	\$43,631,095	
ASIA				
Asia Regional	\$1,750,000	\$450,000	\$0	DA
Regional Development Mission - Asia	\$12,500,000	\$7,887,051	\$700,000	DA
Bangladesh	\$6,000,000	\$1,000,000	\$7,750,000	DA
Cambodia	\$3,000,000	\$0	\$5,249,991	DA
India	\$0	\$0	\$4,000,000	ESF
Indonesia	\$15,775,000	\$1,000,000	\$11,068,061	DA
Nepal	\$5,000,000	\$0	\$700,000	ESF
Philippines	\$10,450,000	\$1,000,000	\$6,111,112	DA
Vietnam	\$5,000,000	\$2,500,000	\$1,200,000	DA
Asia Total	\$59,475,000	\$13,837,051	\$36,779,164	
MIDDLE EAST				
Lebanon	\$0	\$0	\$1,800,000	ESF
Middle East Total	\$0	\$0	\$1,800,000	

OPERATING UNIT	FY 2015 BIODIVERSITY FUNDING IN US\$	FY 2015 COMBATING WILDLIFE TRAFFICKING FUNDING IN US\$ ¹	FY 2015 FORESTRY FUNDING IN US\$ ²	ACCOUNT ³
LATIN AMERICA AND THE CARIBBEAN				
Latin America and the Caribbean Regional	\$500,000	\$0	\$0	DA
South America Regional	\$10,000,000	\$0	\$4,400,040	DA
Central America Regional	\$5,000,000	\$0	\$0	ESF
Caribbean Development Program	\$4,000,000	\$0	\$0	DA
Brazil	\$10,500,000	\$0	\$10,500,000	DA
Colombia	\$9,000,000	\$0	\$6,465,058	ESF
Guatemala	\$4,000,000	\$0	\$1,251,319	DA
Haiti	\$0	\$0	\$0	ESF
Honduras	\$5,000,000	\$0	\$1,000,000	DA
Mexico	\$0	\$0	\$5,855,000	ESF
Peru	\$6,000,000	\$0	\$8,304,935	ESF
Latin America and the Caribbean Total	\$54,000,000	\$0	\$37,776,352	
CENTRAL BUREAUS				
Bureau for Economic Growth, Education, and Environment				
<i>Forestry and Biodiversity Office</i>	\$16,350,000	\$5,285,000	\$5,461,874	DA
<i>Global Climate Change Office</i>	\$0	\$0	\$7,987,716	DA
<i>Land Tenure and Resource Management Office</i>	\$1,200,000	\$0	\$1,891,667	DA
<i>Planning, Learning, and Coordination Office</i>	\$475,000	\$0	\$0	DA
Central Bureaus Total	\$18,025,000	\$5,285,000	\$15,341,257	
OTHER FUNDS⁵				
Transfer to U.S. Forest Service	\$3,000,000	\$0	\$5,000,000	DA

Tier One Countries and Regions

¹ All Combating Wildlife Trafficking funding is from biodiversity conservation investments.

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

³ Funding is from one of three accounts: Development Assistance (DA), Economic Support Funds (ESF), or ESF-Overseas Contingency Operations (OCO).

⁴ \$17.5 million of funds allocated for CARPE were directly apportioned to the U.S. Fish and Wildlife Service for complementary activities in Central Africa.

⁵ \$3 million in biodiversity funds and \$2 million in global climate change funds were directly apportioned to the U.S. Forest Service for actions in a variety of countries.

FUNDING OVERVIEW

USAID FY 2015 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 activities that conserve biodiversity in priority places and integrate biodiversity into development. Combating wildlife trafficking funding is a subset of biodiversity funds that provide direct support to prevent or reduce poaching and/or illegal trade in wildlife, including terrestrial, freshwater, and marine species. Forestry is a funding attribution for any activity for the conservation and sustainable management of forests.

International biodiversity conservation programs received \$250 million in FY 2015 funding, supporting projects in about 55 countries. Approximately 57 percent of funds went to 12 high-priority countries and regions described as Tier One in USAID's Biodiversity Policy, including Indonesia, Tanzania, 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 www.usaid.gov/biodiversity/impact/requirements for more details). Programs apply and develop best practices in conservation, using approaches that address major threats and drivers and include rigorous monitoring and evaluation in support of adaptive management.

In addition to these direct biodiversity allocations, more than \$32 million in FY 2015 funding for other priorities indirectly contributed to biodiversity conservation. For example, sustainable forest management, including climate-smart land use planning, reduces emissions from deforestation and forest degradation as well as contributes to biodiversity conservation. Various climate change adaptation programs manage and protect watersheds, preserve marine fisheries, and conserve mangrove forests.

USAID programmed over \$67 million in FY 2015 funds to combat wildlife trafficking, a 20 percent increase over the \$55 million FY 2014 investment. These funds support a comprehensive response to wildlife trafficking.

USAID and its partners work to strengthen anti-poaching in parks and community-managed areas, reduce consumer demand for wildlife and wildlife products, improve detection and enforcement for products in trade, reform wildlife-related policies, facilitate international cooperation, and deploy new technologies.

In FY 2015, USAID forestry programming totaled \$140 million in about 40 countries, of which \$138 million was focused on tropical forests. The majority (95 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 promote mitigation through sustainable land use practices such as the development of low emissions development plans, sustainable landscape planning, and climate smart agriculture. Other forestry activities, including programs to increase resilience to the impacts of climate change, account for approximately \$7.2 million in forestry programming. These efforts include 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. USAID hosts the Enterprise for the Americas Initiative and Tropical Forest Conservation Act Secretariat; the programs are managed in partnership with the Departments of State and Treasury. Through 2015, 20 Tropical Forest Conservation Act agreements and eight Enterprise for the Americas Initiative agreements had been concluded with 18 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 U.S. government in 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. In FY 2015, USAID was a Steering Committee lead during the transition of the TFA 2020 Secretariat to the World Economic Forum. TFA 2020 membership continues to expand, and additional TFA 2020 initiatives continue to be launched. One such USAID initiative under

development in FY 2015 was the Global Development Alliance in Paraguay entitled the Forest Conservation Agricultural Alliance, which is a multiple stakeholder effort targeting reduction of deforestation from the cattle and soy sectors.

LONGA RIVER, ANGOLA: Expeditions in Angola supported by USAID's Southern Africa Regional Environment Program (SAREP) discovered this new species of damselfly, and honored the program by naming it *Pseudagrion sarepi*, the "Sarep Sprite". Photo by Jens Kipping



The Wildlife Crime Tech Challenge was launched on April 22, 2015 (Earth Day) and called on the global community to harness the power of science and technology to address wildlife crime. An open-innovation competition targeting "non-traditional" applicants from science and technology communities, the Tech Challenge sought solutions to four critical wildlife crime issues: detecting transit routes, strengthening forensic evidence, reducing consumer demand for illegal wildlife products, and tackling corruption along supply chains. The program received 300 applications from individuals, NGOs, universities, and the private sector representing 52 countries. Forty-eight percent of applicants were from non-OECD countries, 86 percent were new to USAID, and 53 applicants were new to the issue of wildlife trafficking. From the pool of 300, 44 finalists from 17 countries were selected to advance in the competition. Solutions ranged from portable, hand-held DNA sequencers to electronic "noses" that can identify illegal cargo to mobile apps for identifying illegal wildlife in markets. Winners were announced in early FY 2016 and received \$10,000, technical assistance and networking support, and the opportunity to apply for a Grand Prize worth up to \$500,000 to scale up their solutions. New partnerships with the National Geographic Society and Smithsonian Institution, and continued collaboration with TRAFFIC, enhanced the reach and rigor of the Challenge process.



LA FLOR WILDLIFE REFUGE, RIVAS, NICARAGUA: Paso Pacifico turtle rangers count the number of eggs in a single nest for data on poaching and nesting success. Photo by Matthew Dolkas

Learn more about these innovators at <https://wildlifecrimetech.org/winners>

BACK COVER: Women fishing in the Terai region of Nepal, June 2016. USAID's new Paani ("water") program will enhance Nepal's ability to manage water resources for multiple uses and users through climate change adaptation and the conservation of freshwater biodiversity. Photo by Olaf Zerbock, USAID

A wide, calm river flows through a rural landscape. In the foreground, four people are wading in the water, each holding a large, rectangular fishing net. They are dressed in traditional clothing, including head coverings. In the middle ground, a person in a red shirt sits on the sandy bank. Further up the river, several other people are visible in the water. The background shows a grassy bank with some trees and a small structure. The overall scene depicts a traditional fishing activity in a natural setting.

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