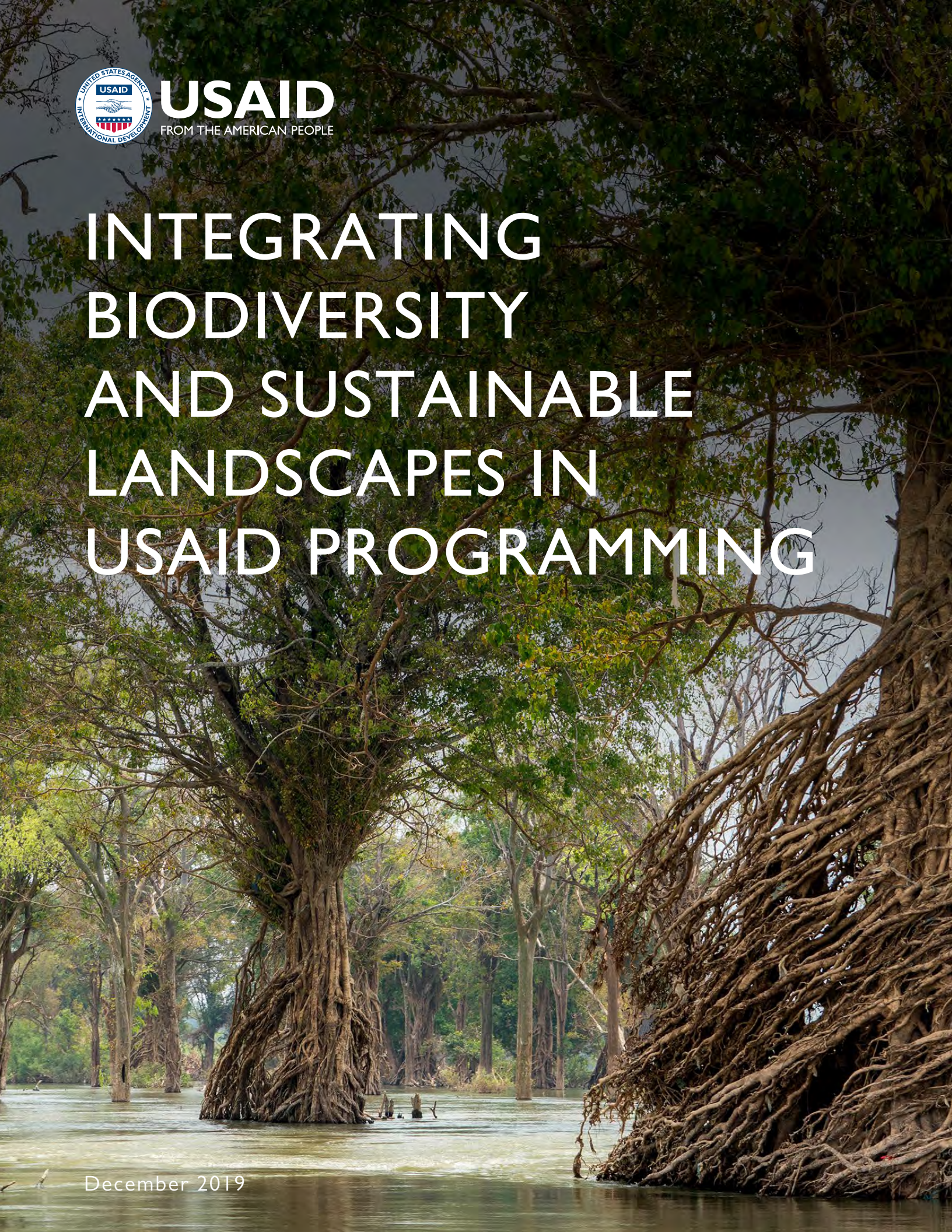


USAID
FROM THE AMERICAN PEOPLE

INTEGRATING BIODIVERSITY AND SUSTAINABLE LANDSCAPES IN USAID PROGRAMMING

December 2019

ACKNOWLEDGEMENTS

This document was drafted by Catherine Wahlén of the USAID Economic Growth, Education, and Environment (E3) Bureau's Biodiversity Results and Integrated Development Gains Enhanced (BRIDGE) project, with significant input from USAID/E3 staff and the missions whose programming is featured. Juliann Aukema (E3/GCC), Jennifer Kane (E3/FAB), and Olaf Zerbock (E3/FAB) oversaw this process and played an instrumental role in revising and shaping the drafts. Much appreciation to the following USAID mission staff for helping to strengthen the document by sharing their experiences with integration and reviewing the document: Marisel Allende, Jennifer Baldwin, James Halperin, Menglim Kim, Melody McNeill, Patrick Meyer, Suphasuk Pradubsuk, Nicodeme Tchamou, and Randy Vinuluan. Special thanks to additional USAID mission, regional bureau, and Washington staff who also reviewed the document: Geoffrey Blate, Amin Budiarjo, Elizabeth Cushion, Lucy Gibbon, Alicia Grimes, Noel Gurwick, Evan Notman, Diane Russell, and Annie Wallace. Thanks also to members of the BRIDGE team who shared examples: Mark Higgins, Robin Martino, and Jeff Stark.

CONTRACT INFORMATION

This work is made possible by the generous support of the American people through the United States Agency for International Development via the contract number AID-OAA-I-14-00014/AID-OAA-TO-15-00020 for the Biodiversity Results and Integrated Development Gains Enhanced (BRIDGE) project. BRIDGE is funded and managed by the USAID Economic Growth, Education, and Environment (E3)/Office of Forestry and Biodiversity (FAB). The E3/Office of Global Climate Change (GCC) also provided support for this product.

Contractor: DAI Global, LLC

Date of Publication: December 2019

COVER PHOTO: The Greening Prey Lang activity in Cambodia focuses on biodiversity and carbon-rich ecosystems. Photo: USAID/Michael Gebremedhin.

BACK COVER PHOTO: USAID/Peru has worked with local communities to support the establishment of private forest conservation areas. Photo: USAID/Diego Pérez.

BRIDGE

Biodiversity Results and Integrated Development Gains Enhanced Project

CONTENTS

ACRONYMS

APEA	Applied Political Economy Analysis
BRIDGE	Biodiversity Results and Integrated Development Gains Enhanced
CARPE	Central Africa Regional Program for the Environment
CBA	Cost-Benefit Analysis
CDCS	Country Development Cooperation Strategy
CRM	Climate Risk Management
E3	Economic Growth, Education, and Environment
FAO	Food and Agriculture Organization of the United Nations
FAB	Forestry and Biodiversity
GCC	Global Climate Change
GDA	Global Development Alliance
GHG	Greenhouse Gas
MEL	Monitoring, Evaluation, and Learning
NGOs	Non-Governmental Organizations
PAD	Project Appraisal Document
PEA	Political Economy Analysis
OAA	Office of Acquisition and Assistance
REDD+	Reducing Emissions from Deforestation and Degradation, conservation, sustainable management of forests and enhancement of forest carbon stocks
SCIOA	Strengthening the Capacity of Indigenous Organizations in the Amazon
SL	Sustainable Landscapes
UNFCCC	UN Framework Convention on Climate Change
USAID	U.S. Agency for International Development
WA-BiCC	West Africa Biodiversity and Climate Change

1. INTRODUCTION

Integration of biodiversity and sustainable landscapes (SL) objectives and considerations has the potential to increase the sustainability of U.S. Agency for International Development (USAID) programming, amplify results, and save costs. Integrating biodiversity and SL offers an opportunity to jointly address threats and drivers of biodiversity, forest loss, and land degradation. Integration can also advance sustainable, resilient, and inclusive programming. Other times, separate activities may make more sense in contexts where programmatic goals and requirements are not a natural fit. This document explores both the benefits and potential challenges of integration to help USAID staff make informed choices about whether and how to integrate these two distinct funding streams.

Many USAID missions have developed integrated biodiversity-SL projects and activities. In 2018, USAID had 21 activities in progress receiving both biodiversity and SL funding as well as several activities receiving either biodiversity or SL funding that generated co-benefits for the other sector (see Annex A for a list of illustrative integrated biodiversity-SL activities). These and other completed activities can help advance learning and an evidence-based approach to biodiversity and SL integration and elucidate a set of best practices for integrating biodiversity and SL in USAID programming.

BIODIVERSITY PROGRAMMING AT USAID

USAID's biodiversity programming conserves key species and ecosystems and addresses both direct threats and underlying drivers of biodiversity loss. Biodiversity programming is based on the premise that conservation is development and that good management of wildlife, forests, and fisheries will help build resilient human and natural systems. USAID programming addresses threats to biodiversity in high-priority forest, coral reef, grassland, and other ecosystems and supports conservation and sustainable forest management in more than 50 countries.

SUSTAINABLE LANDSCAPES PROGRAMMING AT USAID

USAID's SL programming promotes sustainable management of forests, wetlands, agricultural lands, and other lands to help countries reduce greenhouse gas (GHG) emissions, increase carbon storage, and improve livelihoods. USAID's SL programming supports partners in strengthening national government programs, building local governance capacity, developing and using data and information systems, implementing community-based forest enterprises, and supporting partners to meet the standards for selling carbon credits, among other actions. SL programming supports more than 20 countries working to improve management of forests, wetlands, agricultural lands, and other lands in a whole-of-landscape context.

Text Box 1 shares some of the ways in which integrated biodiversity-SL programming can contribute to the journey to self-reliance. USAID defines self-reliance as "a capacity to plan, finance and implement solutions to local development challenges and a commitment to see these through effectively, inclusively, and with accountability" (USAID 2019: 26).

TEXT BOX 1

Biodiversity, Sustainable Landscapes, and the Journey to Self-Reliance

Forest and landscape management is essential to addressing global poverty, biodiversity loss, and climate change and can help support countries on their journey to self-reliance. USAID's approach to integrated biodiversity-SL programming may differ based on a country's level of capacity and demonstrated government commitment to managing its land and forest resources. In high-capacity and high-commitment nations, biodiversity programming could support co-management between the host government and local communities, as USAID/Indonesia is doing through the LESTARI activity (see p.9 for more details on the activity). Biodiversity programming in a low-capacity and low-commitment country might focus on building capacity of environment ministry and protected area staff to better manage natural resources, as the Central Africa Regional Program for the Environment (CARPE) does through its support to sustainable forest management. SL programming in high-capacity and high-commitment nations might support development of national-level policies to reduce emissions from land use; Colombia's national carbon tax is one such example. In low-capacity countries, SL programming can support development of forest and land use monitoring systems, such as SilvaCarbon's work to provide training and tools for inventory, monitoring, and verification of carbon in forests. In Bangladesh, for instance, SilvaCarbon collaborated with the Bangladesh Forest Department and the Food and Agriculture Organization of the United Nations (FAO) to design and implement the country's first nation-wide forest inventory. SilvaCarbon provided targeted technical assistance for improved management and monitoring of forest and forest carbon and capacity building efforts, including a fellowship program where a Bangladeshi researcher comes to the United States to work with U.S. experts on a topic of interest, such as tracking deforestation related to refugee settlements in Cox's Bazar. Regardless of where a nation is along the journey to self-reliance, integrated biodiversity-SL programming focuses on activities that help move the country towards better management of their natural resources.

DOCUMENT PURPOSE AND STRUCTURE

This document aims to help USAID staff in Washington and missions better understand when integration leads to improved outcomes for both biodiversity and SL programming and situations in which integration may not make sense. In addition, USAID's lessons learned on integration may be of interest to development practitioners more broadly. The document focuses primarily on activity design but includes recommendations and approaches that apply throughout USAID's program cycle. The document uses the term "programming" to refer to both projects and activities and discusses two types of integrated programming: a) projects and activities that use two or more sources of funding and have explicit objectives for each sector, or "co-funded programming" and b) projects and activities with only one source of funding that have co-benefits for the other sector, and may or may not have an explicit objective for the other sector.

Following this introduction, the second section identifies factors to consider when deciding whether or not to pursue integrated programming. The third section presents the respective funding requirements for biodiversity and SL programming to improve understanding of sector requirements. The fourth section highlights assessments and tools for integration that may be helpful in the design and monitoring, evaluation, and learning (MEL) of integrated programming. The fifth section describes approaches with high potential for integration, using examples from current and recently completed USAID activities. The sixth section shares integrated design process essentials for teams to consider. The seventh section provides brief conclusions.

II. SHOULD I INTEGRATE?

Integration of biodiversity and SL objectives and considerations has the potential to amplify the impact and sustainability of USAID programming. An integrated biodiversity-SL activity, for instance, generally reduces GHG emissions, increases carbon storage and/or makes meaningful contributions to national-level goals for GHG emission reductions from the land use sector while also protecting biodiversity hotspots. Integrated activities often promote sustainable forest or land management through policy development or capacity building to address threats to biodiversity. Such activities may also provide climate change adaptation, health, and water co-benefits and support for human livelihoods.

Biologically significant, high-carbon ecosystems are potentially appropriate areas for site-based integrated biodiversity-SL activities. Such areas can include upland forests, peatlands, savannas, wetlands, or critical coastal areas such as mangroves. Integrated biodiversity-SL activities may include management of these areas in ways that achieve GHG mitigation and address drivers and threats to biodiversity. Biodiversity and SL integration can also help support countries on their journey to self-reliance by strengthening collaboration with constituents through co-management, building management capacity to conduct resource inventories and improving policy incentives for forest conservation.

From a technical and management perspective, integration provides an opportunity to contribute to shared objectives and reduction of management burdens. Integration further offers an opportunity to foster greater coordination among different host country entities and natural resource management constituents. Since drivers of both land-based GHG emissions and biodiversity loss typically come from other economic sectors, tackling these threats may call for similar strategic interventions at the broader natural resource management governance level.

However, integration is not appropriate in all situations and geographies. It is important to ask whether integration will lead to improved, measurable development impacts and make the sum of an activity greater than its parts. Although biodiversity and SL often appear to be a natural fit, when considering co-funded programming, it is important to note that each sector has programmatic goals and requirements that may or may not be achieved through integration. For instance, if the focus of an activity is forest conservation, a co-funded biodiversity-SL activity makes sense when the risk of deforestation is high. In contrast, a biodiversity activity that conserves forests and habitats with low deforestation risk is not appropriate for SL co-funding. Text Box 2 shares lessons learned from retrofitting integration into an existing activity. Similarly, when wildlife trafficking is the biggest threat to forest biodiversity and proposed interventions will not impact carbon emissions, SL funding is not appropriate. However, in both cases, the biodiversity activity could consider including an SL objective if there is the potential for SL results.

A second consideration is whether integration makes sense from a financial perspective. Forest restoration may meet SL objectives of addressing mitigation opportunities and biodiversity objectives of addressing drivers and threats to biodiversity; however, restoration work is often more expensive than protecting existing high-quality habitats. Consequently, even though restoration activities can be compliant with the biodiversity funding requirements, they are

usually not the most efficient use of limited funding. A third consideration is the time and resources needed for coordination and collaboration among USAID staff and with implementing partners, which has the potential to complicate already time-consuming management and reporting processes. For example, USAID staff may have to spend considerable time learning about the other sector's goals, priorities, and reporting requirements before they can begin to engage with their colleagues in developing integrated activities or joint work plans. As a benefit, USAID staff investment in learning about other sectors will increase their cross-sectoral understanding and enhance their ability to collaborate.

In situations in which USAID staff think integration might make sense for both biodiversity and SL programming goals, conducting a systems analysis can help to identify potential geographic or programmatic areas for integration. Section Four describes assessments and analyses in more detail.

The following questions suggest some considerations for USAID staff interested in pursuing integrated biodiversity-SL programming:

1. Is the proposed site a biologically significant area?
2. Will the proposed activity contribute to reducing emissions or increasing carbon storage?
3. If considering co-funded programming, is an integrated approach consistent with both the intended objectives and the funding requirements of biodiversity and SL funding?
4. Will integration lead to improved and/or measurable development impacts? If so, how?
5. Does integration make sense from a financial perspective?
6. Does integration require additional time and resources, and is this manageable?

A man carrying a wild pig (*Sus Scrofa* from *Suidae* family) on his bicycle in the Maringa Lopori Landscape in the Democratic Republic of Congo. Photo: USAID/CARPE.

TEXT BOX 2

USAID Mission Example: Lessons Learned from Retrofitting

CARPE is both USAID's largest biodiversity project and its largest climate change mitigation project in Africa. CARPE partners play a key role in conserving the Congo Basin ecosystem, the second largest tropical rainforest in the world. Initiated as an ecosystem and climate research program in 1995, CARPE moved into implementation when it became the main U.S. contribution to the Congo Basin Forest Partnership (CBFP), announced in 2002. From 2003 to 2018, CARPE was almost entirely focused on conserving priority landscapes, identified by governments and non-governmental organizations (NGOs) in 1999 and subsequently used to guide CBFP investments. These landscapes are ecologically defined areas selected specifically for their biodiversity richness and endemism, and contain national parks, forestry concessions, community-managed areas, and other land uses. USAID began programming SL activities in CARPE landscapes in 2014. At first, the project used this additional funding without developing clear guidelines and criteria for ensuring compliance with SL requirements. After two years of experience using SL funds in biologically important landscapes with historically low deforestation rates, CARPE undertook an assessment to more clearly identify and prioritize the drivers of deforestation in higher-deforestation landscapes. These threats include charcoal production, clearing of forest for agriculture and settlements, small-scale artisanal logging, and unsustainable industrial logging. As a result of the assessment, biodiversity and SL funds are now more strategically deployed across the CARPE region, and interventions are more specifically directed at the threats and drivers leading to biodiversity loss, forest-related emissions or both, depending on the priorities in a given landscape or outside targeting the source of the threat (e.g., charcoal demand from the surrounding cities). CARPE also revised its monitoring to reflect the unique strategic approaches and objectives of SL activities, even where these continued to be implemented in an integrated fashion with biodiversity activities in the priority landscapes.

CARPE staff described this assessment and prioritization process as very helpful in improving the program's overall success because, by addressing the drivers of deforestation and associated GHG emissions, CARPE is now more explicitly addressing the drivers of habitat destruction, a major threat to biodiversity. This "retrofitted" integration resulted in a project that better conserves biodiversity; mitigates climate change; strengthens regional capacity to monitor forest cover change, GHG emissions, and biodiversity; and establishes sound environmental policies and regulations. CARPE has improved management of approximately 18.3 million hectares of forest ecosystems with biological significance. Further, although elephant and ape populations are declining in Central Africa as a whole, these species have remained stable in CARPE landscapes for the past decade. CARPE efforts resulted in reducing, sequestering, and avoiding an estimated 20.2 million tons of carbon dioxide in total emissions, which is the equivalent of more than 3.6 million cars off the road annually.

III. BIODIVERSITY AND SUSTAINABLE LANDSCAPE FUNDING REQUIREMENTS AND MODELS

Although integration does not always mean co-funded programming, co-funded activities must be designed and implemented within USAID's funding requirements. This section presents the requirements for biodiversity and sustainable landscapes funding to help USAID staff understand how to design co-funded programming, as well as when to report on indirect attributions. Text Box 3 provides an example of how the USAID/Peru mission followed this process.

BIODIVERSITY FUNDING REQUIREMENTS

USAID's Biodiversity Code ensures that the Agency meets the intentions of Congressional legislation in support of global biodiversity conservation. The code has four criteria, all of which must be met when using biodiversity funds:

1. The activity must have an explicit biodiversity objective; it is not enough to have biodiversity conservation result as a positive externality from another activity.
2. Interventions must be identified based on an analysis of drivers and threats to biodiversity and a corresponding theory of change.
3. Site-based interventions must have the intent to positively affect biodiversity in biologically significant areas.
4. The activity must monitor indicators based on the stated theory of change for biodiversity conservation results.

For integrated site-based programming, it is important to consider the geographies where activities may be implemented; for example, forest or wetland areas that are high priority for emissions reductions under SL objectives may be biologically significant per the Biodiversity Code. On the other hand, protecting forests from deforestation or degradation through an SL activity may not be enough to address threats to biodiversity, particularly in areas where overhunting or illegal harvesting of protected species is a problem.

SUSTAINABLE LANDSCAPES FUNDING REQUIREMENTS

SL funds must be spent on activities that have an explicit, primary objective of slowing, halting, or reversing GHG emissions from land use. SL work encompasses practices at all spatial scales to reduce GHG emissions. Although tropical forest landscapes are typically carbon rich, the forest area under consideration must also be facing a threat of deforestation or degradation to generate measurable SL results in terms of avoided emissions, reduced emissions, or carbon sequestration. An SL-funded activity must have a reasonable expectation of increasing sequestration or reducing emissions from improved land use or other enabling conditions compared to what would have happened without the activity (business as usual).

SL funding should ultimately contribute to the capacity for developing and implementing cohesive national sustainable land management systems. In addition, SL funding should focus programming on areas where

large-scale emission reductions can be achieved and avoid focusing on small-scale activities that would not help the country achieve significant reductions. For example, it would not be a strategic use of SL funds to focus on mangrove conservation in a country where emissions from mangrove loss represents less than one percent of emissions from land use.

SL funding for fiscal year 2012 and earlier was restricted to forest-related activities, such as the REDD+ climate mitigation framework. REDD+, recognized under the UN Framework Convention on Climate Change (UNFCCC), entails reducing emissions from deforestation and forest degradation and also conserving existing forest carbon stocks and enhancing such stocks. Since fiscal year 2013, SL funding may be used to reduce emissions from forests, wetlands, coastal areas, peatlands, grasslands, and agricultural lands.

Again, the geographies of integrated site-based programming must be considered to ensure overlap of biodiversity and SL priorities. For instance, if the focus of an activity is forest conservation, a co-funded biodiversity-SL activity makes sense when the risk of deforestation is high. In contrast, SL funding is not appropriate for an activity that conserves forests and habitats with low deforestation risk where wildlife trafficking is the biggest threat to forest biodiversity and proposed interventions will not reduce deforestation (see Text Boxes 2 & 3). However, in both cases, the biodiversity activity could consider including an explicit SL objective if there is the potential for SL results.

INDIRECTION ATTRIBUTION

Why Indirectly Attribute?

Within USAID planning and reporting, indirect attributions of funding to either biodiversity or SL objectives are valuable for both types of programming. Such attributions demonstrate value for money by documenting how specific investments deliver impacts toward multiple development objectives. Reporting indirect attributions thus enables USAID to communicate the reach of the Agency's funding streams to Congress, the U.S. public, and the international community. Indirect attributions also help USAID/Washington identify how to provide better technical support.

Activities using funds not earmarked for biodiversity, with or without a biodiversity objective but otherwise meeting the requirements of the code, may be attributed as indirect biodiversity programming. An example of a biodiversity-funded activity that reported an indirect SL attribution is the Forest Income for Environmental Sustainability activity in Liberia, which is described later in this section. An example of an SL-funded activity that reported an indirect biodiversity attribution is the Community-Based Forest Management Project in Zambia (2013-2018). The project established REDD+ protected areas to facilitate long-term relationships between forest-dependent communities and key public and private stakeholders on forested, but heavily threatened, public and customary lands. In addition, the project's efforts to strengthen community-based governance, protect natural resources and biodiversity, and increase alternative rural livelihoods for villages in the project's zone of influence contributed to improved outcomes for biodiversity.

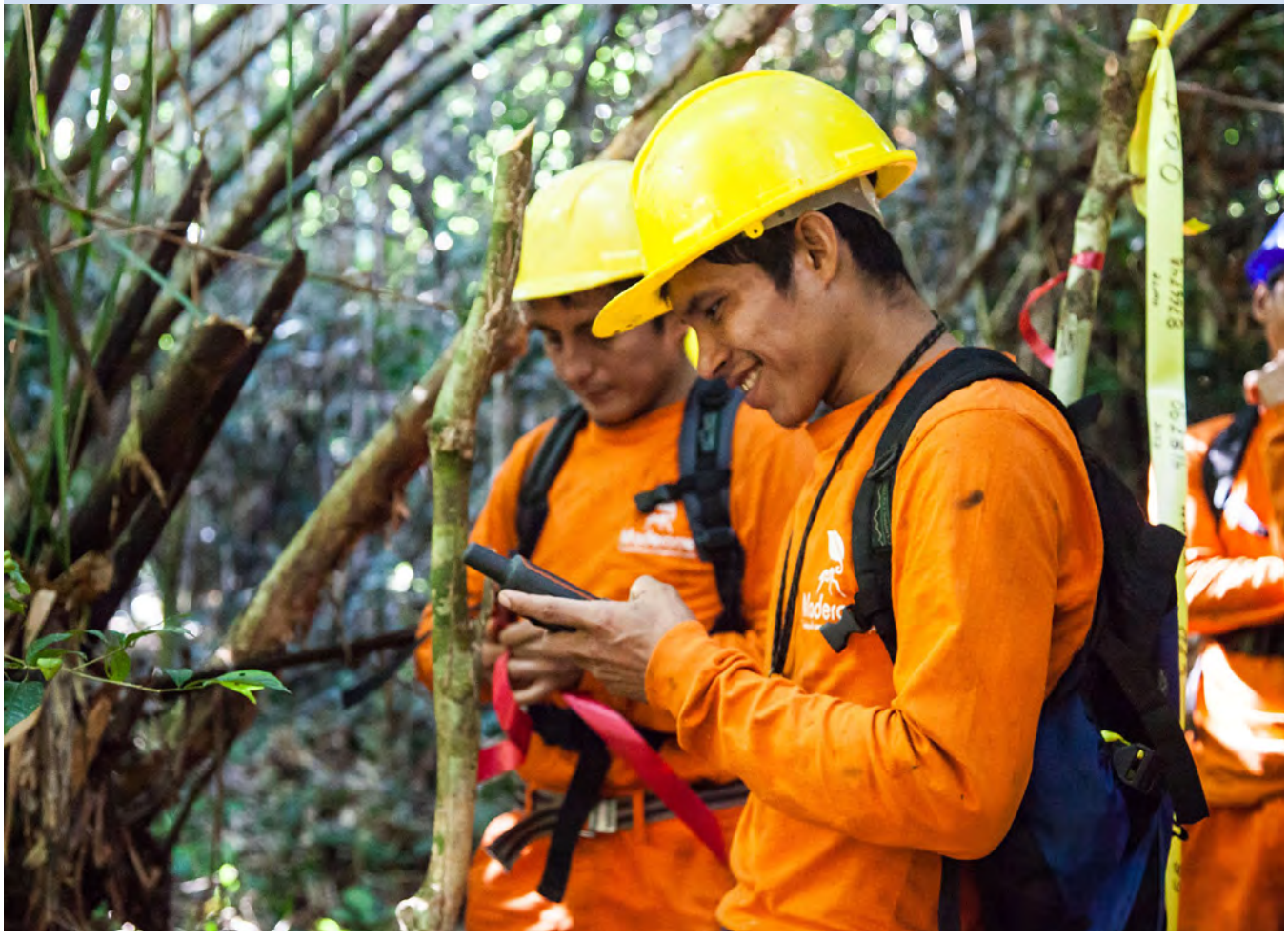
Activities using funds not earmarked for SL can be indirectly attributed to SL if they have the effect of slowing, halting or reversing GHG emissions from land use and land use change, even if this is not the activity's primary objective. These projects and activities should have a reasonable expectation of reducing emissions or enhancing sequestration from land use or they should improve a policy or other enabling conditions that could reasonably be expected to do so. When reporting an indirect attribution, only funding for the portion of the project or activity that is expected to generate climate change benefits should be reported.

Examples of biodiversity-funded activities that would qualify for indirect SL attribution include conservation that reduces encroachment of agriculture into natural ecosystems, decreased deforestation, and hence reduced GHG emissions; restoration of high-biodiversity wetlands, including re-flooding previously drained wetlands; improved management of protected areas where there is a high risk of deforestation, degradation, or land conversion; and strengthened land tenure systems that create an incentive for communities to manage and restore forested areas, resulting in increased carbon sequestration in tree biomass.

TEXT BOX 3

USAID Mission Example:
Determining When Integration Makes Sense

When considering the design of an integrated biodiversity-SL activity, USAID/Peru first defined their biodiversity objective and identified possible interventions based on an analysis of drivers and threats to biodiversity, in line with the requirements of the Biodiversity Code. This process helped mission personnel identify key hotspots for biodiversity. They then categorized high-carbon areas under elevated threat of deforestation to map hotspots for potential SL efforts. As this analysis did not identify locations where biologically significant geographies overlapped with high-emission geographies, the design team then analyzed the drivers of emissions and examined the intersections between landscape threats and biologically significant areas. This additional step enabled the design team to clearly define both biodiversity and SL objectives as well as the degree to which they overlapped. Ultimately, the team decided to pursue an integrated activity based on integrated strategic approaches rather than shared geographic locations. Taking the time to consider what an activity seeks to achieve and whether potential activity objectives contribute to both biodiversity and SL goals is critical in designing effective integrated activities.



FUNDING MODELS FOR INTEGRATION

The following sub-sections elaborate on co-funded and single sector funding programming. For each type of programming, an illustrative example is provided.

Co-Funding

Co-funded programming uses two or more sources of USAID funding and has explicit objectives for each sector. USAID/Indonesia, through its LESTARI activity (2015-2020; biodiversity + SL funding), partners with the Government of Indonesia to reduce GHG emissions and conserve biodiversity in carbon-rich and biologically significant forest and mangrove ecosystems. LESTARI therefore fits a co-funded, partially co-located design model, with examples of linked biodiversity-SL interventions. The activity operates in six landscapes, covering 15.3 million hectares, selected for their high biodiversity and high carbon stocks, including orangutan habitat and peatlands. LESTARI aims to achieve a 41 percent reduction in GHG emissions and 8.42 million hectares of forests under improved management over its five-year timeframe. The activity integrates strategic approaches throughout its three technical themes: forest and land use governance and advocacy, improved conservation and forest management, and private-sector engagement. It is useful to note, however, that LESTARI designed different, specific interventions to achieve biodiversity and SL objectives. Sometimes, these were implemented in the same place but sometimes they were focused in different locations within the shared landscape to achieve the different funding goals. Between 2015-2018, LESTARI improved management of 3.5 million hectares of forests, contributed to the adoption of 15 public policies related to land use and forest management, and rehabilitated and released more than 100 orangutans into a national park in Central Kalimantan. LESTARI efforts also resulted in avoiding more than 19 million tons of carbon dioxide emissions from land use change, including deforestation, which is the equivalent of more than four million cars off the road.

Co-funded activities may use funding streams in completely different geographic locations or at different scales, resulting in spatially segregated but linked biodiversity-SL interventions. For example, biodiversity funding may be applied at a local level while SL funding might focus on national-level policies, with interventions coordinated and linked through objectives related to ecological connectivity, governance or institutional capacity.

The Bangladesh Climate-Resilient Ecosystems and Livelihoods (CREL) activity (2012-2017; biodiversity + SL funding), for example, engaged stakeholders at multiple levels, providing technical assistance to both the Government of Bangladesh and local communities to improve ecosystem conservation and resilience capacity. Biodiversity activities focused on reducing threats to biodiversity, such as unsustainable exploitation of natural resources, by diversifying the livelihoods of people living in and near protected areas, while SL activities reduced GHG emissions from deforestation and improper land use and promoted sustainable management of forests and wetlands.

In Gunung Leuser National Park, the LESTARI activity in Indonesia supports forest rangers in monitoring wildlife movements, numbers and habitat data using camera trap technology. These cameras helped improve the baseline data about endangered Sumatran tigers in Leuser, which in turn helps rangers make data-driven decisions about how to reduce poaching. Photo: USAID/Samantha Martin.

The Forest Income for Environmental Sustainability activity in Liberia works with local, regional, and national stakeholders to create rural, forest-based enterprises that provide sustainable economic opportunities for forest-dependent communities and farmers. Photo: USAID/Yoel Kirschner.

Single Sector Funding with Co-Benefits

Some integrated programming has only one source of funding but generates results or co-benefits for the other sector. These co-benefits may be the result of including either an explicit objective for the other sector during design or other sector considerations during design without an explicit objective.

Biodiversity Funding with Sustainable Landscapes Co-Benefits. The Liberia Forest Income for Environmental Sustainability activity (2015-2020; biodiversity funding) is an example of a biodiversity-funded activity that generated SL co-benefits. The activity implements biodiversity conservation in 11 community forests and works with local, regional, and national stakeholders to create rural, forest-based enterprises that provide sustainable economic opportunities for forest-dependent communities and farmers.

This activity has contributed to 54,000 hectares of community forests under improved natural resource management, developed a methodology for forest inventories and community-managed biomonitoring systems, and trained community forest guards to patrol and ensure sustainable use of the forest, which has contributed to reducing deforestation. As a result of the Forest Income for Environmental Sustainability's efforts to combat deforestation, the activity has generated and reported SL co-benefits.

Sustainable Landscapes Funding with Biodiversity Co-Benefits. The Forest-Partnership for Land Use Science activity in India (2012-2017; SL funding) was an SL-funded activity that generated co-benefits for biodiversity. The activity contributed to accelerating India's transition to a low-emission economy, reducing emissions and enhancing carbon sequestration through landscapes by supporting activities to strengthen government and community-based organizations' capacity for REDD+ implementation in India. The Forest-Partnership for Land Use Science activity improved management of natural resources through conserving forests and sustaining soil and water ecosystem services in its four targeted landscapes, resulting in co-benefits for biodiversity. The activity also developed a decision support tool to analyze the impact of various management scenarios on non-timber forest products. As a result of these activities, the Forest-Partnership for Land Use Science activity reported 710,930 hectares of biologically significant areas under improved management.

The West Africa Biodiversity and Climate Change activity has worked to restore mangrove areas across Sierra Leone. Photo: USAID/Melody McNeill.

IV. ASSESSMENTS, ANALYSES, AND TOOLS FOR INTEGRATION

Assessments, analyses, and other analytic tools can help missions ensure that integrated programming addresses the funding parameters of each USAID directive while contributing to program objectives. This section describes assessments, analyses, and tools that may be helpful in the design, implementation, and MEL stages of integrated projects and activities.

ASSESSMENTS AND ANALYSES TO INFORM DESIGN

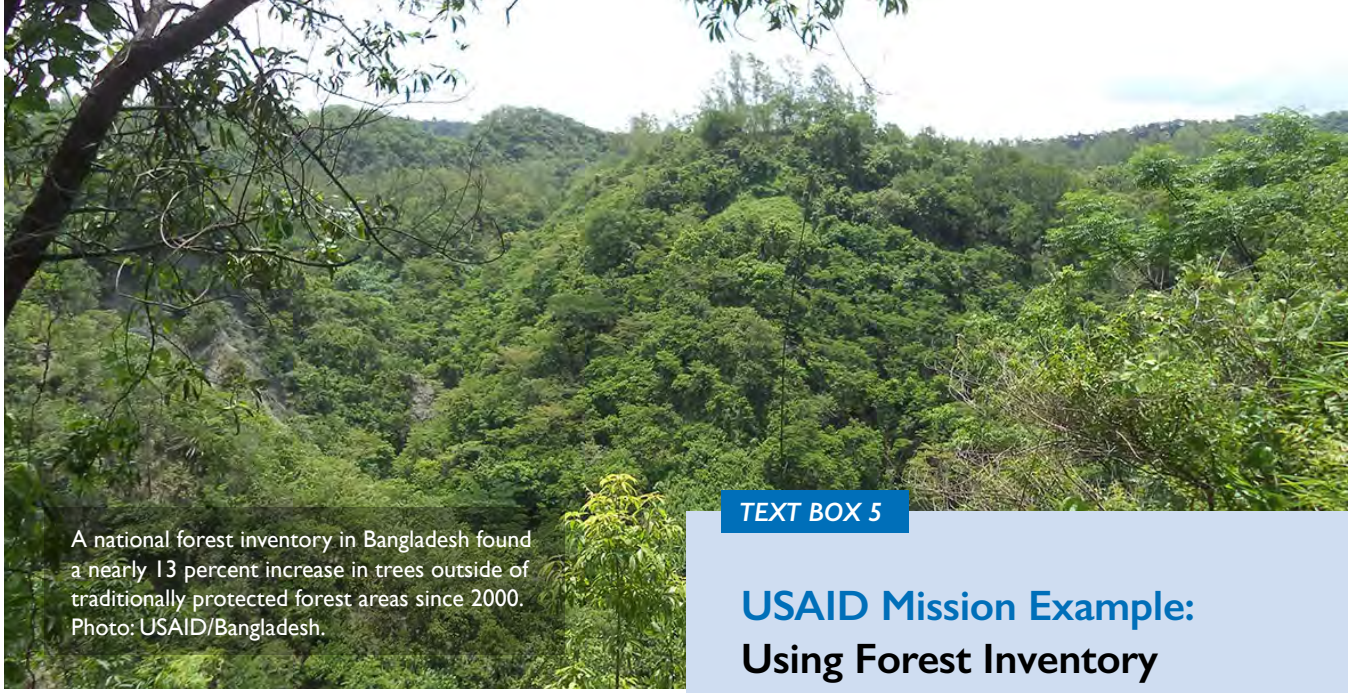
USAID project and activity design, regardless of the program area or sector, should be based on an understanding of the current situation or development problem to be addressed, and evidence for the applicability or effectiveness of proposed interventions. A basic set of assessments and analyses can help. Some typical examples include an analysis of lessons learned from previous mission projects, including mid-term and final evaluations; assessments of host country priorities and international commitments; assessments of other donor activities in the country; identification of private-sector engagement opportunities; and stakeholder consultations. For example, stakeholder consultations and interviews with the host country government during the design phase can help align planned activities with government priorities and further sustainability over the long-term (see Text Box 4). Other types of assessments, such as national forest inventories, may also help to inform project

TEXT BOX 4

USAID Mission Example: Stakeholder Consultations and Government Alignment in Integrated Activity Design

When designing the USAID Greening Prey Lang activity (2018-2023; biodiversity + SL funding), USAID/Cambodia invited national and sub-national government authorities, local communities, the private sector, NGOs, and other donors to participate in consultations on the proposed activity. During the consultation process, the Government of Cambodia made suggestions on how to improve alignment between the activity and Cambodia's national environmental strategy to ensure the activity contributed to the Government of Cambodia's priorities. The consultation process also offered an opportunity for local communities, NGOs, and civil society organizations to share the platform with national and sub-national level government to voice their concerns and assert their rights in the process. USAID staff emphasized that the host country government's involvement from the beginning of the design phase ensured government support and buy-in for the activity during its implementation.

The Greening Prey Lang activity in Cambodia held consultations with local communities and government authorities during the activity design. Photo: USAID/Michael Gebremedhin.



A national forest inventory in Bangladesh found a nearly 13 percent increase in trees outside of traditionally protected forest areas since 2000. Photo: USAID/Bangladesh.

and activity design (see Text Box 5). The following assessments and analyses are particularly helpful in identifying development problems, opportunities, and priorities within the context of integrated biodiversity-SL programming. The stage of the program cycle when they are generally used is noted for each.

The Congressionally mandated **Foreign Assistance Act 118/119 Tropical Forest and Biodiversity Analysis** can highlight conservation priorities and cross-sectoral considerations during Country Development Cooperation Strategy (CDCS) development, thus helping to identify appropriate points for integration. For instance, a high-quality 118/119 analysis should include information on potential deforestation patterns and land use changes that could exacerbate existing threats to biodiversity and biodiverse carbon-rich ecosystems. This information can be used in combination with existing information from GHG inventories of the land use sector to identify priority drivers of deforestation to reduce GHG emissions. However, because the 118/119 analysis is required to inform a CDCS, it will cover a broad spectrum of issues related to biodiversity and forest conservation at a national level; therefore, it will not be precise enough for project and activity design. In all instances, USAID staff will need to conduct additional analysis to identify threats and drivers for both biodiversity loss and GHG emissions at a smaller spatial scale. Understanding where the threats and drivers overlap can help identify entry points for integration.

TEXT BOX 5

USAID Mission Example: Using Forest Inventory Results to Inform Design

The Strengthening Forest Monitoring in Bangladesh activity (2014-2019; SL funding) conducted a national forest inventory, which was the country's first "wall-to-wall forest inventory" that includes forested areas, non-forested areas, trees outside forests, and protected areas. While protected forest area has declined dramatically in the last few decades, recent studies have demonstrated a nearly 13 percent increase in trees outside forests since 2000. Even though these trees fall outside of traditional protected forest areas, they still need to be protected, and the national forest inventory unlocks powerful data that can be used to preserve these newly emerged natural resources. USAID/Bangladesh considered these new data in the development of its CDCS and project appraisal document (PAD). Specifically, USAID/Bangladesh will utilize the data in the design of an interagency agreement with the U.S. Forest Service, which will build the capacity of the Bangladesh Forest Department, promote forest conservation research, and develop a Youth Conservation Corps focused on protecting these tree resources.

A **Biodiversity Threats Assessment** is a site-specific study conducted during project and activity design that identifies both direct threats and indirect threats, or drivers, affecting biodiversity as well as major trends, and actors that have an impact on ecosystems and species of interest. For instance, a biodiversity threats assessment could identify logging as a direct threat to biodiversity and then identify the global market for soy and cattle in South America or markets for palm oil, paper, and timber in Southeast Asia as drivers of the threat. A threats assessment details the type, location, severity, and causes of threats to a specific area, ecosystem, or species, and is typically used for project and activity design. It is best practice that a threats assessment be carried out to inform design of any USAID-funded biodiversity project or activity. Although SL funding does not require such an assessment, it does encourage a careful analysis of drivers of deforestation and degradation as well as of opportunities for emissions reductions, including avoided emissions and sequestration. See Text Box 6 for a USAID mission example from the Philippines.

Climate Risk Management (CRM) can help design teams to identify potential co-benefits, including GHG mitigation opportunities. CRM is an iterative process conducted at each stage of the program cycle and is mandatory for all strategies, projects, and activities. First, USAID staff plan to screen or assess climate risks and opportunities, including reviewing any previous assessments. Second, USAID staff conduct a screening or assessment, rating climate risks as low, moderate, or high and considering opportunities to build climate resilience. Third, USAID staff incorporate assessment results into the design of strategies, projects, and activities. Fourth, USAID staff incorporate CRM into implementation plans and MEL processes to address and adaptively manage climate risks. Implementing CRM can help integrate climate change adaptation and mitigation into strategies, activities, and projects. When done well, CRM can help USAID and their partners to adaptively manage risks that could have otherwise undermined activity objectives, leading to more sustainable results and saving taxpayer dollars. For example, USAID/Zimbabwe integrated CRM into the development of its CDCS strategy, using the iterative process described above. The mission

TEXT BOX 6

USAID Mission Example: Using 118/119 Analysis and Assessments to Inform Design in the Philippines

The combination of a 118/119 analysis and biodiversity threats assessment can help a mission to identify the best geographic and thematic areas in which to invest in an integrated activity. For instance, USAID/Philippines commissioned the U.S. Forest Service to assess existing efforts to implement REDD+ in the Philippines as part of the development of a new CDCS with the potential for the mission to receive SL funding. The assessment identified opportunities and challenges for developing and implementing REDD+ programs in the Philippines and highlighted relevant technical and policy issues. The cross-mission design team for the Philippines Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience activity (2012-2017; biodiversity + SL funding) used this SL assessment in combination with the mission's prior 118/119 analysis to inform the planning process for the activity. The design team then shared the assessment with USAID/Philippines's technical and support offices, inviting feedback on the statement of work from technical offices beyond biodiversity and SL, such as the Office of Economic Development and Governance. USAID/Philippines also discussed biodiversity and forestry needs and site selection with the Government of the Philippines, resulting in an inclusive process that built upon the 118/119 analysis by incorporating additional perspectives on the best areas in which to invest in the integrated biodiversity-SL activity.

included in its strategy an intermediate result related to climate change that calls for improved resilience to shocks through activities such as improved natural resource management.

Ecosystem Service Valuation and Cost-Benefit Analysis (CBA) can support the design and implementation of integrated biodiversity-SL programming. Ecosystem service valuation allows USAID practitioners to estimate the monetary value of services provided by natural ecosystems such as water provision, recreational opportunities, non-timber forest products, and protection from climatic events. These monetary values can then be incorporated into a CBA of a USAID biodiversity or SL activity to estimate the total costs and benefits for a given intervention. By identifying and monetizing these services, the full value of SL approaches that include biodiversity conservation, and vice versa, can be estimated and compared to other approaches. As an illustration, USAID/Mozambique conducted a CBA that compared two options for reducing storm damage to coastal communities: mangrove restoration or an earthen dike. The CBA found that the benefits of mangrove restoration were far greater than its costs when considering the additional services of carbon sequestration and fish spawning habitat. In this example, the carbon storage potential of the mangroves made mangrove restoration the best option. See Section VIII, References; USAID 2018c for additional guidance on incorporating ecosystem service valuation into CBA across sectors.

Geospatial Analysis seeks to address design and monitoring questions through multi-layered data analysis on biodiversity, carbon stocks, deforestation threats, land use, and land use change. Rigorous statistical and geographic data analysis methods can identify hotspots, trends, or locations of overlap between biodiversity and SL priorities and activities as well as areas with high potential for integration. E3's geospatial analysts support missions and operating units with location-based data science and analytics, such as selecting priority landscapes, identifying integration opportunities, refining situation models, and testing pathways for achieving integrated objectives. In addition, E3's geospatial analysts coordinate with the USAID GeoCenter, which provides data management and training to build mission geospatial capacity, such as mission capacity to manage ecological and socio-economic layers. This increased capacity can then help to inform activity design. The USAID/Peru analysis, described in Text Box 3, is one example of how missions have applied geospatial analysis to inform project and activity design. Another application of geospatial analysis is the SERVIR Global program, a joint initiative of the National Aeronautics and Space Administration and USAID that helps developing countries use satellite data and geospatial technologies to manage climate risks and land use challenges. USAID has developed guidance on using geospatial analysis to support integration of biodiversity considerations throughout the program cycle (See Section VIII, References; USAID 2019).

USAID helps countries conduct **GHG inventories** as part of countries' UNFCCC obligations. GHG inventories present climate emission and removal trends over time. To assist USAID staff in identifying sectors that can benefit most from policies and measures targeting emissions reductions, USAID presents these GHG inventories in GHG emission fact sheets. For example, to identify sectors and interventions that could reduce the most emissions, USAID/Philippines commissioned a comprehensive CBA of climate mitigation options under the Building Low Emission Alternatives to Develop Economic Resilience and Sustainability (B-LEADERS) project. The resulting carbon abatement curves developed for the forest, agriculture, energy, industry, transport, and waste sectors helped identify easily achievable goals as well as interventions that could reduce emissions most.

Land Tenure and Property Rights Assessments can identify both constraints related to land and resource rights that are leading to rapid forest conversion, conflict over resources or contributing to biodiversity and forest loss, and program opportunities. Land assessments can rapidly evaluate a multitude of legal, political, economic, and capacity issues related to land and resources governance at any stage in the programming lifecycle and can provide specific programming recommendations. The E3/Land Team conducted Land Tenure and Property Rights assessments and developed related country land profiles in more than 60 countries, most recently in Burma, Cambodia, Ethiopia, Guatemala, Liberia, Nepal, Panama, Tanzania, Vietnam, and Zambia.

A forest savannah mosaic, south of Garamba, Democractic Republic of the Congo. Photo: USAID/CARPE.

In Zambia, the land tenure assessment informed activities under the Tenure and Global Climate Change program. Based on the assessment's recommendations, the Tenure and Global Climate Change program worked to better integrate tenure considerations into planning and negotiation processes with customary authorities who manage the land. For example, the project scoped grants to work with Zambian wildlife management civil society organizations and explored opportunities to engage game ranch organizations. This example illustrates the ways in which USAID missions use land assessments to learn about a country's land and resource governance issues and then use this information to inform activity design as well as to inform new programming and identify synergies between USAID and other donors in the land sector.

When designing biodiversity programming, USAID promotes the use of an intentional approach to problem analysis and developing **theories of change** and **results chains**. This process derives from the Open Standards for the Practice of Conservation, an approach to project design and adaptive management developed in the biodiversity conservation sector. The Open Standards process includes five major steps: 1) conceptualize the issues; 2) plan actions and monitoring; 3) implement actions and monitoring; 4) analyze and use data to adapt; and 5) capture, share, and learn from results. An intentional approach to problem analysis and developing a theory of change and results chains during the Project Appraisal Document (PAD) design process can help define biodiversity focal interests (and their relationship to other sector goals such as reducing emissions from the land use sector), specific threats and drivers affecting biodiversity, strategic approaches and actions to be taken, and specific MEL considerations.

Design teams can use **Miradi Adaptive Management Software** to help them walk through the steps of the Open Standards including rating and prioritizing threats to biodiversity based on existing information that might come from a biodiversity threats assessment or other context-specific information. USAID staff generally present a theory of change using results chains (a graphic representation of a theory of change). It is important to note, however, that the outputs are only as good as the information inputs; although the Open Standards approach can make problem analyses and theories of change more explicit, it does not take the place of gathering evidence to inform decision-making. Consequently, staff should consider complementing the use of Miradi with other approaches that support evidence-based decision-making. Although both biodiversity and SL programming includes situational analysis and theories of change in the design process, Miradi has been used more widely in biodiversity programming. SL, in turn, has developed a global situation model.

Systems Analysis can help to identify linkages and common entry points for biodiversity and SL objectives. Analysis of governance or political systems can help identify national-level policy work that could create co-benefits for either programming area or reduce threats to biologically significant, carbon-rich areas. A systems analysis may also reveal other development threats and opportunities that can inform the decision of whether or not integration makes sense. Systems analysis can reveal the complementary nature between biodiversity and SL interventions at different scales to help improve an integrated conceptual framework. Systems thinking at different scales can help illuminate ways to monitor cross-sectoral integration and capture contributions to more sustainable development pathways.

One example of a framework for systems analysis is Nature, Wealth, and Power (NWP). This framework examines natural resource management, economics and markets, and governance in one locale and emphasizes the importance of considering each of these factors as part of one system. For instance, an activity that addresses natural resource management at a technical level without addressing governance considerations, such as land tenure, is likely to fail. Similarly, if an activity only strengthens land tenure and does not consider economics or markets, the development impact could be weak. In contrast, addressing natural resource management, economics and markets, and governance as part of one system can contribute to more robust development interventions.

Political Economy Analysis (PEA) can help identify the incentives and constraints affecting the behavior of actors in a relevant system and facilitate understanding of the underlying reasons why things work the way they do. By helping identify political, economic, social, and cultural influences, PEA supports a more politically informed approach to thinking and working, known as "thinking and working politically (TWP)." Through

TEXT BOX 7

USAID Mission Example: Using Applied PEAs to Inform Design

The Strengthening the Capacity of Indigenous Organizations in the Amazon (SCIOA) activity (2018-2021), a regional activity that works in Brazil, Colombia, Peru, Guyana, and Suriname, provides an illustration of how Applied PEAs (APEAs) can help inform activity design. In its PAD, USAID/South America Regional's Amazon Regional Environment Program identified large-scale infrastructure and extractive industries—including hydro dams, large road construction, oil and gas, and mining—as key threats to the biodiversity of the Amazon. At the same time, the Amazon Regional Environment Program identified strengthening the capacity of Amazonian indigenous peoples to directly respond to these threats through improved representation in decision-making as an important strategic approach. SCIOA, the first activity launched under the PAD, supports this foundational step of strengthening indigenous organizations in administrative and financial management.

The APEAs completed under SCIOA examined the challenges that indigenous peoples experience in ensuring that their voices are heard in the design and approval of large-scale infrastructure and extractive projects. The SCIOA implementing partner originally proposed to communicate directly to indigenous groups in each of the five countries although they did not yet have networks established in all five countries. As a result of the APEA recommendations, the implementing partner adapted the structure of the SCIOA activity to instead incorporate a series of sub-grants to local NGOs that already had strong relationships with indigenous organizations and were viewed as neutral by multiple parties including government officials, NGOs, and the indigenous organizations themselves. The APEA also helped USAID to validate other elements of its design, such as a focus on supporting gender and youth inclusion in indigenous organizational leadership and decision-making, and reaffirming that indigenous organizations still needed support in voicing their concerns on large-scale infrastructure and extractive projects impacting their lands. Lastly, the APEAs provided timely updates on evolving political contexts across the Amazon, some of which were less favorable to indigenous rights.

TWP, USAID seeks to better understand the systems in which it works and to identify sustainable, locally generated solutions. PEA can improve technical sector outcomes by viewing problems through a lens that critically examines lines of power, authority, and influence at multiple levels and how these lines and actors have the potential to block or enhance actions that a project may take. This perspective can lead to the development, or adaptation of interventions that are better grounded in the political reality. PEA supports an improved understanding of how power dynamics, economic incentives and the role of formal and informal rules shape resource degradation and resource management decisions. Including a political economy-based perspective when designing integrated biodiversity-SL programming can be critical due to the added complexity of cross-sectoral interests and actors. For activities that seek to work with government agencies to improve laws and policies, a PEA may be helpful in understanding the different perspectives and interests agencies may have that shape their work on biodiversity and climate change issues. A lack of understanding of the motivations and incentives of different actors affecting development outcomes can result in ineffective approaches.

One limitation of PEAs is that their findings have not always influenced programming. To address this limitation, USAID developed Applied PEAs (APEAs), a more problem-focused methodology that helps mission staff inform the design of interventions at any phase of the USAID program cycle. See Text Box 7 for an illustration of how USAID/South America Regional's Amazon Regional Environment Program used APEAs to inform activity design.

TOOLS

The following tools can be used in the design, implementation, and MEL stages of integrated biodiversity-SL activities. These tools were primarily developed with global data and designed to be applied in a range of contexts, though it is worth noting that some USAID activities have developed their own tools.

The **Agriculture, Forestry, and Other Land Use Carbon Calculator** is a set of simple, web-based calculation tools. The Calculator allows users to estimate the carbon dioxide benefits and potential climate impacts of eight different types of land use and management activities: forest protection, forest management, afforestation/reforestation, agroforestry, cropland management, grazing land management, forest degradation by fuelwood extraction, and the development of land management policies. The Calculator assists USAID implementers in reporting yearly estimates of GHG emissions reduced, sequestered, and/or avoided from project activities, a required USAID standard indicator (EG.13.6-7) for SL projects.

The **Climate Change, Agriculture, and Food Security Mitigation Options Tool** provides information to prioritize and make science-informed decisions about low-emission options in agriculture. The tool estimates GHG emissions from crop, livestock, agroforestry, and rice management systems by country or geographic region. The tool ranks mitigation options for each system according to mitigation potential and compatibility with food production, and in relation to current management practices and climate and soil characteristics. USAID staff can use the tool to evaluate options during design, including any possible threats from agriculture to biodiversity or carbon stocks.

Global Forest Watch is an interactive online forest monitoring and alert system designed to empower people with information to better manage and conserve forests. The Global Forest Watch website and tools unite satellite technology and imagery, forest management, company concession and protected area maps; mobile technology and crowdsourcing on a single platform to map the world's forests. The platform offers reliable and open data about forest cover loss

and gain around the world. This tool can be used to better understand deforestation threats and trends, and help manage forests more sustainably to achieve both biodiversity conservation and SL goals.

The **Global Forest Watch Climate** application provides credible data and analytical tools related to GHG emissions from tropical deforestation and their effects on global climate change. Global Forest Watch Climate facilitates the measurement and tracking of countries' emissions and offers tools such as interactive and high-resolution maps, side-by-side emissions comparisons and country emissions profiles that can be customized by various metrics (e.g., annual gross and net emissions, carbon stored in trees and soil, emissions from deforestation vs. all other sectors, deforestation rates and drivers).

The **Carbon Stock Assessment Protocol**, developed by scientists from the Sustainable Wetlands Adaptation and Mitigation Program (SWAMP), aims to support a better understanding of carbon storage dynamics in mangrove forests and peatlands. SWAMP developed a guide for how to adapt forest inventories for mangroves, with a focus on completing a comprehensive carbon stock assessment. Understanding the distribution of carbon in mangrove forests can help design teams to prioritize protection and restoration for climate mitigation and identify which mangrove forests, if any, overlap with key biodiversity priority areas.

The **Watershed Ecosystem Services Tool (WESTool)**, developed by the Supporting Forests and Biodiversity activity in Cambodia (2012-2018; biodiversity + SL funding), allows users to explore how ecosystem services, land uses, and socioeconomic factors interact across Cambodia's landscapes. By combining science-based approaches with maps and tools, the WESTool provides national, regional, and local information to support decisionmakers and land managers who wish to understand and balance the value of remaining forests with development goals.

Between 2015 and 2018, the LESTARI activity in Indonesia improved management of 3.5 million hectares of forests. Photo: USAID/Indonesia.

V. BIODIVERSITY AND SUSTAINABLE LANDSCAPES INTEGRATION APPROACHES

There are several strategic approaches with high potential for achieving both biodiversity and SL objectives. This section describes such strategic approaches and provides examples of USAID field activities. Though these examples are primarily co-funded activities, the findings and lessons learned could also be applicable to activities that have single-sector funding with co-benefits.

Community Forest Management broadly refers to forest use, governance arrangements, and land tenure systems under which the authority, rights and responsibilities for forest management rest fully or partially with local communities of forest users. USAID has supported community forest user groups to build their capacity to manage forests and promote strategic approaches for biodiversity conservation and sustainable forest management. Community Forest Management also has the potential to contribute to REDD+ goals, particularly because many REDD+ activities and pilot projects are implemented in areas under Community Forest Management. In Nepal, for example, more than 18,000 community forest user groups have contributed to an increase in forest cover throughout the country. USAID's support to the Hariyo Ban project helped achieve biodiversity goals through strengthening internal governance of community forest user groups, reducing threats to targeted species, and improving national policy and planning coordination to facilitate biodiversity conservation and sustainable natural resource management, among other actions. Hariyo Ban contributed to SL goals by supporting formulation and implementation of policies, strategies, and working guidelines that reduce carbon emissions from deforestation and degradation; developing national capacity for forest inventory management, GHG monitoring and equitable distribution of climate finance benefits among stakeholders; and developing, testing, and expanding sustainable methods for carbon credit disbursement.

TEXT BOX 8

USAID Mission Example: The Impact of Migration on Forest Cover

Between August 2017 and August 2019, nearly 750,000 Rohingya refugees entered Bangladesh and most took shelter inside the protected forest areas of Cox's Bazar. As a result, by mid-2018, more than 7,200 hectares of forest land were degraded in and around the refugee camps, 76% of which was previously under the jurisdiction of the Bangladesh Forest Department. The livelihoods of local communities and the fragile ecosystems of Bangladesh's reserve forests are severely jeopardized. This highlights the need to work across sectors to address drivers of deforestation in refugee zones through an integrated planning and management approach. In response, USAID/Bangladesh's Local Works activity will focus on local engagement with the Bangladeshi communities in the periphery of the Rohingya camps, with the goal to conserve and rehabilitate natural resources and alleviate migration challenges. This work aims to support Bangladesh in advancing locally owned development and slowing deforestation.

Integrated Planning and Management. Many USAID biodiversity and SL projects and activities incorporate capacity building and technical assistance to promote the adoption of systems approaches in local planning, management, and decision-making. Integrated planning and management can also help to facilitate coordination among different government agencies or ministries. In Bangladesh, for instance, the Rohingya refugee crisis is accelerating deforestation, demanding a multi-objective response (see Text Box 8).

Governance. Supporting the capacity of governments and communities to manage biodiversity and natural resources can contribute to their ability to tackle deforestation threats and mitigate emissions. Addressing disputes and securing rights to land or forest resources can improve conservation outcomes and reduce the threat of deforestation by local communities. The Greening Prey Lang activity in Cambodia (2018-2023; biodiversity + SL funding) is working to strengthen inclusive and effective landscape governance. A significant driver of biodiversity loss and deforestation is weak capacity for enforcement of laws related to illegal timber, anti-poaching, and anti-trafficking in Cambodia. Greening Prey Lang is advocating for and supporting governance reforms to strengthen national and sub-national governance systems and support sustainable land management and biodiversity conservation. The activity is also enhancing the ability of local communities to manage natural resources and advocate for their interests. The Protecting Ecosystems and Restoring Forests activity in Malawi (2014-2019; SL funding) also underscores the role of governance interventions in ensuring an institutional-enabling environment for forest conservation and sustainable economic growth for low-emission development. The activity has built the natural resource management capacity of government partners and other stakeholders and supports the implementation of institutional and technical arrangements for Malawi's GHG inventory system and REDD+ readiness activities.

Mangrove Forest Conservation and Restoration. Mangrove forests have high potential for biodiversity-SL integration. Mangrove forests are among the planet's most carbon-rich ecosystems. In addition, mangrove habitats provide other critical ecosystem services that underpin local livelihoods, such

TEXT BOX 9

USAID Mission Example: Rice-Mangrove Integration

In Sierra Leone, the West Africa Biodiversity and Climate Change activity (2015-2020), which had adaptation, biodiversity-SL integration funding, has worked with local farmers in coastal areas to plant mangroves on the edges of rice farms. This practice helps protect crops and farmland from erosion and wildlife damage, while simultaneously restoring mangroves. Previously, farmers cut young growth trees every year and put them in the ground as a barrier to help keep wildlife out of their rice. Since mangrove restoration activities began, farmers report that they are saving time because they no longer have to cut down trees to protect their rice. Further, by restoring mangroves, the West Africa Biodiversity and Climate Change activity achieved the additional benefit of avoided deforestation from the young growth trees that would have been otherwise harvested. Although the West Africa Biodiversity and Climate Change activity has not yet quantified this carbon benefit, this example illustrates the co-benefits that can emerge from integrated programming.

The West Africa Biodiversity and Climate Change activity has worked with local farmers in coastal areas to plant and restore mangroves in Sierra Leone. Photo: USAID/Melody McNeill.

as supporting services (nutrient cycling, soil formation, and water quality regulation), provisioning services (food, fiber and fuel), regulating services (erosion and flood control), and cultural services (recreational and cultural). However, in most countries, mangrove areas are not a biodiversity priority, in part because these ecosystems are less well understood than others. A proper biodiversity assessment can help design teams determine if a mangrove-related activity would contribute to biodiversity conservation. If a mission identifies mangrove forests as a biodiversity priority, mangrove-focused activities could represent a good opportunity for biodiversity-SL integration as well as for potentially supporting other adaptation and livelihood objectives. The West Africa Biodiversity and Climate Change activity (2015-2020; biodiversity + SL + adaptation funding) is an example of a co-funded program that has restored mangroves (See Text Box 9).

Protected Area Management. Where protected areas face encroachment threats from deforestation, land conversion, and unsustainable use, more effective management of protected areas can meet both biodiversity and SL objectives. The LESTARI activity in Indonesia (2015-2020; biodiversity + SL funding) illustrates how sustainable land use in protected areas and their buffer zones has led to biodiversity conservation and climate change mitigation (see Text Box 10). The Greening Prey Lang activity in Cambodia (2018-2023; biodiversity + SL funding) is also working to promote sustainable land management and biodiversity conservation in protected areas. In the Democratic Republic of Congo's Kahuzi-Biega and Virunga parks, CARPE is using SL funds to address deforestation threats to protected areas from charcoal production and agriculture. These parks are areas of high population density, which increases the risk of deforestation and loss of wildlife habitat.

Private-Sector Engagement. Private-sector actors are major stakeholders in and around protected areas and other forested areas. In some instances, the private sector may be engaged in industrial logging, mining, palm oil, or other extractive activities, which can result in deforestation and degradation, and have a negative impact on biodiversity.

TEXT BOX 10

USAID Mission Example: Indonesia's LESTARI Activity

Orangutan habitat in Central Kalimantan, Indonesia is located on carbon-rich peatland forests and surrounded by a matrix of other land uses. Conversion of this habitat area for agricultural development is a serious, ongoing threat and has the potential for massive GHG emissions. To ensure the integrity of this forested area, LESTARI has collaborated with national park authorities to improve forest management in the park and buffer zones. This activity helps to protect a highly biodiverse area that is critical for orangutans while also avoiding deforestation. Mission staff report that LESTARI's biodiversity and SL objectives are integrated throughout this activity.

The LESTARI activity in Indonesia helps to protect a highly biodiverse area that is critical for orangutans while also avoiding deforestation. Photo: William M. Frej.

Alliances and partnerships with the private sector can help to minimize these negative impacts and increase financial and economic support for forest conservation and climate mitigation. The Responsible Asia Forest and Trade initiative, which developed from a USAID/ Regional Development Mission for Asia cooperative agreement, is a collaborative effort among the U.S. Government, private companies, international and local NGOs, and research institutions that promotes legal and sustainable forest management and trade and GHG emissions reduction goals. Similarly, the Tropical Forest Alliance 2020, a public-private partnership, aims to reduce tropical deforestation associated with the soil, beef, palm oil, and pulp and paper industries. Partnering with the private sector offers an opportunity to leverage additional financial resources as well as to work directly with industries to tackle commodity-driven deforestation and promote more sustainable forest value chains.

REDD+ is a climate mitigation framework that developed out of a growing awareness of the important role of forests' carbon sequestration in achieving global climate mitigation goals and a recognition that climate finance could help pay to conserve forests. USAID helps countries build capacities and policy environments to participate in REDD+, including providing accurate and up-to-date information on forest resources, stored carbon, deforestation rates and associated emissions, to enable countries to develop effective plans to reduce those emissions. USAID also supports measurement, reporting, and verification of GHG emissions and reductions, which promotes greater transparency in the climate regime. While measurement, reporting, and verification activities may not provide clear biodiversity benefits, REDD+ activities that reduce threats to biodiversity from deforestation and degradation may contribute to biodiversity objectives.

The Climate, Nature, and Communities in Guatemala activity (2010-2017; biodiversity + SL funding) facilitated the construction of regulatory, legal, and governance frameworks for REDD+ implementation and helped the government to develop a national monitoring, reporting, and verification system. In addition, the activity contributed to biodiversity objectives by supporting rural communities to conserve biodiversity through sustainable forest management and piloting market-based models for biodiversity conservation. The Supporting Forests and Biodiversity activity in Cambodia (2012-2018; biodiversity + SL funding) supported the Keo Seima REDD+ project, which was validated under two voluntary carbon offset standards, culminating in the first sale of Cambodian REDD+ carbon credits. Supporting Forests and Biodiversity also brought 1.3 million hectares of forest of biological significance under improved management and established conservation agreements with communities to protect and conserve wildlife habitat. Both activities exemplify how USAID REDD+ activities can contribute to both biodiversity and SL objectives.

VI. INTEGRATED DESIGN PROCESS ESSENTIALS

Integrated project and activity design requires a sound conceptual approach. This section describes best practices for missions that have identified an opportunity for integrated biodiversity-SL programming.

Promote Enabling Conditions for Integration. USAID biodiversity integration case studies on Honduras (USAID 2018a) and Mozambique (USAID 2018b) have identified key institutional enabling conditions that can support integration. These include: strong mission leadership and staff support for integration throughout conceptualization, design, and implementation; a clear definition of and vision for integration; a well-defined organizational structure to facilitate norms of working across sectors; knowledge management to encourage regular information exchange; and a willingness to adapt. Design teams and activity managers should consider promoting these enabling conditions in design, implementation, and MEL.

Engage with the Office of Acquisition and Assistance (OAA). OAA can help design teams understand the characteristics of different types of procurement instruments or mechanisms and identify the best options for award packages. Once a design team has identified its main activity objectives and funding streams, OAA can help them decide on the award type for either assistance or acquisition and suggest criteria for evaluating bids. As an illustration, the USAID/Peru Environment and Sustainable Growth Office engaged with OAA to identify the most appropriate mechanisms for its integrated biodiversity-SL activities, including two co-funded contracts and a Global Development Alliance. The mission selected the Global Development Alliance to facilitate a collaborative design and implementation process with the private sector and indigenous communities, as well as to work toward self-reliance by engaging local investors. In addition, discussions with OAA helped the mission ensure its environment portfolio included distinct, complementary activities with non-overlapping scopes of work.

OAA staff may sometimes encourage design teams to simplify activity design by grouping multiple objectives together into one broader objective. In such situations, it is critical for design teams to raise awareness among OAA staff about the importance of maintaining separate biodiversity and SL objectives to ensure that the specific goals of each sector are included in calls for proposals and that the activity meets the objectives of both funding directives. Similarly, in situations where there is management pressure to create integrated projects or activities in order to manage fewer mechanisms, integrated design teams can suggest developing overarching integration goals combined with specific objectives for each programming area, rather than forcing integration into all parts of a program.

Create Multidisciplinary Design and Implementation Teams. It is critical that all partners have an integrated understanding and vision from the beginning. During strategic planning and design, engaging technical staff from across the mission can help support consideration of multiple sectors in design. At a minimum, the design team and the technical evaluation committee should include a biodiversity specialist and an SL specialist. During implementation, it is critical to consider the technical composition and management structure of the consortium implementing an integrated activity. An integrated activity with co-funding should have some key personnel with biodiversity expertise and others with SL expertise. Further, a single activity with one implementing partner heading the biodiversity component and a second implementing partner leading the SL component may struggle to integrate effectively due to differing organizational priorities and approaches. A team with the prime contractor

or lead partner taking an overall integrating role by overseeing technically focused sub-grantees may obtain better results. Another good idea is to encourage implementing partners to share the same office. Others have suggested including an integration specialist position to drive integrated programming.

Develop Integrated Theories of Change. Disaggregating activity components by funding streams may lead to easier reporting and logistics, but it may also hinder activity integration and success. When developing a theory of change for an integrated project or activity, design teams should consider the requirements of both the biodiversity and SL directives while also reflecting on how specific programmatic objectives will support overall integration, and make sure these are clearly represented in their results framework or results chains. Clearly identifying both the biodiversity conservation and emissions reduction focal interests and the strategic approaches that correspond to each, as well as the logical links between the two as USAID/Peru did (see Text Box 3), can minimize poor integration of activity objectives during implementation. See Annex B for an example of an integrated theory of change and corresponding results chain.

Use Custom Indicators to Track Progress. Standard indicators are designed to roll up across the Agency for high-level reporting and should be included in MEL plans to help support big-picture summaries for the Agency. However, standard indicators can be poor choices for monitoring activity-level integration impact. Custom indicators should be derived from an activity's theory of change to help track whether an activity is making progress toward its key objectives. Integrated custom indicators can also bind together a diverse team around a shared goal, prioritize integration and help drive integration during project and activity design. Creating custom indicators may also help build integration into the MEL system and ensure that evaluation captures both the interrelationships and synergies between the two program areas as well as the value and impact of integrated programming. As an illustration, CARPE develops and monitors custom indicators to contribute to narratives for Agency reporting as well as to measure ecological integrity. For instance, CARPE uses the inventory of animal populations (e.g., elephants) that contribute to seed dispersal in the landscape to measure the correlation between reforestation through natural regeneration and the presence of wildlife, in recognition of the role of wildlife in dispersing seeds. USAID/Washington can help gather and share custom indicators with both biodiversity and SL colleagues across the agency, which can help others develop appropriate ones for similar activities.

Promote Knowledge Management. Promoting knowledge management can help ensure missions document their experiences and facilitate information exchange on both technical and operational elements of integration. As suggested above, sharing custom indicators and experiences tracking co-benefits can help staff learn from others' integration experiences. Similarly, learning how the USAID/Peru Environment and Sustainable Growth Office worked with OAA to ensure that specific biodiversity and SL objectives were included in calls for proposals might encourage another mission to reach out to OAA in the initial design of an integrated activity. Documenting technical learning from different sectors' approaches can also help staff to use other sector tools and approaches, where appropriate. In addition, regular documentation and sharing of information provide an institutional memory for new employees or staff who want to reflect on past decisions or approaches. Such knowledge management can also help to ensure that individuals do not duplicate efforts over time.

VII. CONCLUSION

Integration of biodiversity and SL objectives and considerations in USAID programming brings both benefits and challenges, as this document illustrates. An emerging area of focus for many integrated programs and activities is how to best measure whether and how integrated programming improves development results. To date, there is very little evidence on how integrated biodiversity-SL activities are monitoring progress on the integrated components of their activities in a way that demonstrates the added value of integration. This lack of evidence underscores the need for increased focus on integrated MEL in the design and implementation of future activities. Knowledge management and dialogue among Washington and missions can help to collect examples and best practices, illustrate situations in which integration may or may not be the most appropriate approach, and facilitate exchange of integrated results chains and indicators.

The interaction between biodiversity and SL at USAID will evolve with changes in policy, budgets, and technical direction. USAID's 2019 Policy Framework recommends promoting cross-sectoral integration and notes the importance of natural resource management for achieving development outcomes across the Agency. In addition, recent case studies of integrated biodiversity programming at USAID (USAID 2018a; USAID 2018b) have underscored the importance of attention to the institutional enabling environment for integration, a topic that is likely to be the focus of additional learning within the Agency as more staff engage in integrated programming.

Readers of this document are encouraged to reach out to E3 staff to share experiences and lessons learned from integrated activities, including specific examples of results chains and indicators for integration. E3 staff, in turn, can provide guidance, training, and technical support for integrated programming and share additional resources that can assist missions with the design and implementation of successful integrated activities.

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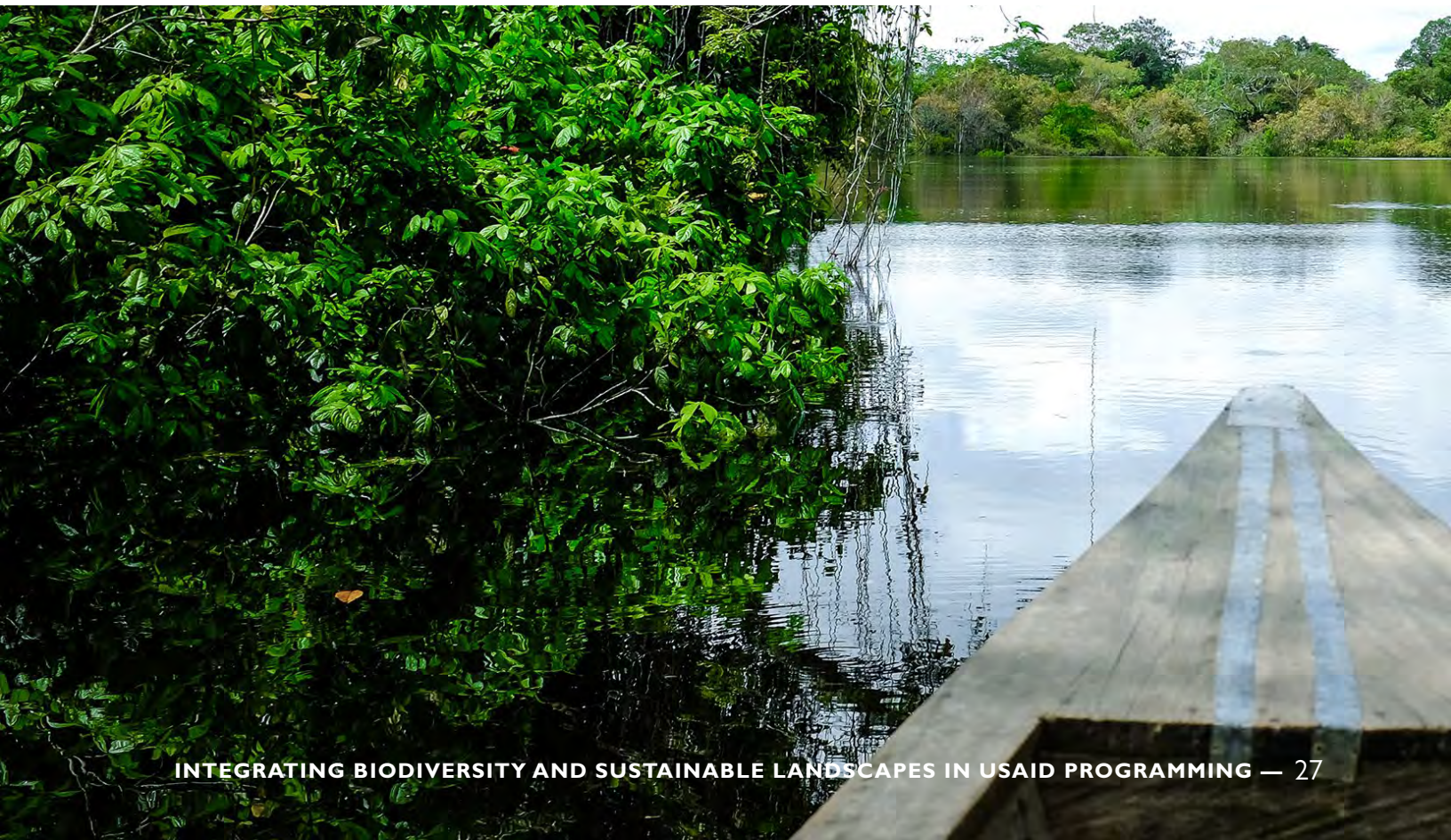
The ProBosques activity in Peru is strengthening forest government and promoting private sector engagement and indigenous participation in forest value chains. Photo: USAID/Peru.



IX. ANNEX

ANNEX A: ILLUSTRATIVE USAID ACTIVITIES WITH BIODIVERSITY AND SUSTAINABLE LANDSCAPES FUNDING

Co-Funded Biodiversity and SL Activities

1. Cambodia Environmental Governance Reform For Sustainable Development (2016- 2019)
2. Cambodia Greening Prey Lang (2018-2023)
3. Cambodia Keo Seima Conservation Project (2018-2021)
4. Cambodia Supporting Forests and Biodiversity (2012-2018)
5. Cambodia Wildlife Sanctuary Support Program (2018-2021)
6. CARPE: Virunga Forest Landscape Program (2013-2018)
7. CARPE: Ituri-Epulu-Aru Forest Landscape Program (2013-2018)
8. CARPE: Salonga-Lukenie-Sankuru Landscape Program (2013-2018)
9. CARPE: Lac Tele-Lac Tumba Landscape Program (2014-2019)
10. CARPE: Leconi-Bateke-Lefini Landscape Program (2013-2018)
11. CARPE: U.S. Forest Service (2015-2020)
12. CARPE: Congo Basin Forest Monitoring Using Satellites (2014-2019)
13. CARPE: Strengthening Central Africa Environmental Management and Policy Support (SCAEMPS) (2014-2019)
14. Indonesia Build Indonesia to Take Care of Nature for Sustainability Project (BIJAK) (2016-2021)
15. Indonesia Department of Interior PAPA (2013-2018)
16. Indonesia LESTARI (2015-2020)
17. Indonesia U.S. Forest Service PAPA (2016-2021)
18. Peru ProBosques (2018-2023)
19. Peru Forest Alliance (2019-2023)
20. The Philippines Protect Wildlife (2016-2020)
21. Vietnam Green Annamites (2016-2020)
22. West Africa Biodiversity and Climate Change (2015-2020)

Biodiversity-Funded Activities with Reported SL Co-Benefits

1. Brazil U.S. Forest Service (2015-2019)
2. Brazil Sustainable Palm Oil TFA 2020 (2016-2019)
3. Liberia Forest Income for Environmental Sustainability (2015-2020)
4. Malawi Fisheries Integration of Society and Habitats (2014-2019)

Biodiversity-Funded Activities with Likely SL Co-Benefits

1. Brazil Partnership for Enhanced Engagement in Research (2014-2020)
2. Colombia Natural Wealth (2017-2022)
3. Endangered Ecosystems of Northern Tanzania (2015-2020)

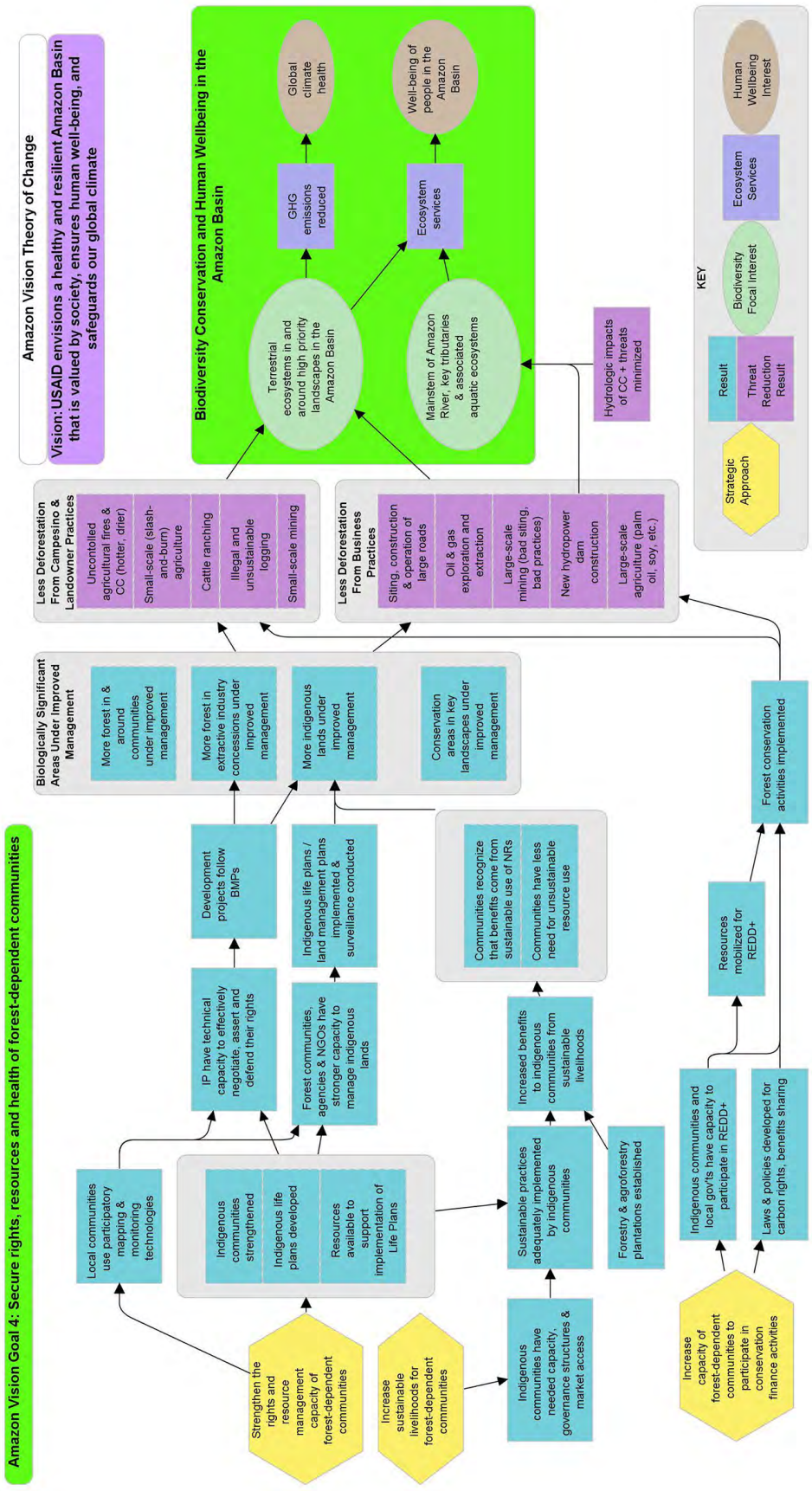
SL-Funded Activities with Reported Biodiversity Co-Benefits

1. India Forest-Partnership for Land Use Science (PLUS) (2012-2017
2. Indonesia Adaptasi Perubahan Iklim dan Ketangguhan (APIK) (2015-2020)
3. Zambia Community-based Forest management Project (2013-2018)

SL-Funded Activities with Likely Biodiversity Co-Benefits

1. Cambodia U.S. Forest Service PAPA (2016-2019)
2. Bangladesh Strengthening Forest Monitoring in Bangladesh (2014-2019)
3. Bangladesh Community Partnerships to Strengthen Sustainable Development (Compass) (U.S. Forest Service PAPA) (2019-2024)
4. Colombia Paramos y Bosques (2016-2021)
5. Indonesia Partnership for Enhanced Engagement in Research (2011-2021)
6. Vietnam Forests and Deltas Program (2012-2018)
7. Protecting Ecosystems and Restoring Forests in Malawi (PEFORM) (2014-2019)
8. USAID Green Invest Asia (2017-2022)

ANNEX B: AN INTEGRATED THEORY OF CHANGE AND RESULTS CHAIN FROM USAID/ SOUTH AMERICA REGIONAL'S AMAZON REGIONAL ENVIRONMENT PROGRAM



The Greening Prey Lang activity in Cambodia focuses on biodiversity and carbon-rich ecosystems. Photo: USAID/Michael Gebremedhin.

BRIDGE

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