



# EVIDENCE IN ACTION

USING AND GENERATING EVIDENCE ABOUT EFFECTIVENESS IN  
BIODIVERSITY PROGRAMMING

## Unit 4: Building the Evidence Base



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**Prepared by:** Natalie Dubois, Environmental Incentives; Andrés Gómez, ICF

**Front Cover:** A growing evidence base allows researchers to assess the effectiveness of mangrove restoration on restoring important ecosystem services such as coastal protection and providing habitat for wild caught fish. Photo credit: Mokhamad Edliadi/CIFOR

**Back Cover:** There is a strong evidence base showing that oil palm plantations reduce species richness compared to primary and secondary forests. Photo credit: Moses Ceaser/CIFOR

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## ACRONYMS

<b>CIFOR</b>	Center for International Forestry Research
<b>CLA</b>	Collaborating, Learning, and Adapting
<b>ERIE</b>	Expanding the Reach of Impact Evaluation
<b>PAD</b>	Project Appraisal Document
<b>PEER</b>	Partnerships for Enhanced Engagement in Research
<b>USAID</b>	United States Agency for International Development

# I. OVERVIEW

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**H**ealthy rivers, forests, and oceans are essential to development, as they support and sustain livelihoods and human well-being. Conservation protects the biological resources that people depend on and that are a critical component of good development outcomes. To this end, the United States Agency for International Development (USAID) has made significant investments in mitigating threats to biodiversity in key ecosystems and landscapes.

Faced with finite resources and great demand, it makes sense to ask tough questions about the effectiveness of biodiversity programs. It is not only important to know if a program achieved its expected outcomes; it is also important to understand how and why a program achieves success. Using and generating evidence about what works, what doesn't, and in which contexts can help teams make better programming decisions. *Evidence in Action* helps mission staff and implementing partners use and generate evidence about the effectiveness of biodiversity programs. The resource is presented in four units that can be used alone or as a series. A glossary defining key terms is included with each unit.

- *Unit 1: Understanding an Evidence-Based Approach* provides an introduction to evidence and evidence-based approaches to biodiversity programming in the context of the USAID Program Cycle.
- *Unit 2: Using Evidence* focuses on the critical review and use of evidence to increase the effectiveness of biodiversity programs.
- *Unit 3: Generating Evidence* identifies Program Cycle processes that teams can use to generate credible evidence about the effectiveness of biodiversity programs.
- **This final unit: *Building the Evidence Base* highlights ways in which evidence can be shared and applied to strengthen biodiversity programs across USAID.**

## 2. INTRODUCTION

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Units 1-3 of *Evidence in Action* focus on how individual program managers can use an evidence-based approach to increase the effectiveness of biodiversity programming. As covered in *Unit 2: Using Evidence*, building capacity to apply the evidence base to program decisions is a key aspect for the uptake of evidence-based approaches. However, improved capacity is rarely enough to sustain the adoption of evidence-based approaches on its own. Program managers and other decision makers must also have access to an appropriate and useful evidence base. Similarly, producing evidence about program effectiveness, which is the topic of *Unit 3: Generating Evidence*, does not ensure that relevant information will make its way into the broader evidence base so that it becomes available to others. *Unit 4: Building the Evidence Base* takes a broader look at the processes by which the evidence base is created and the role that program managers play in shaping that evidence base as consumers and contributors of evidence.

Evidence (see Box I on page 8) is relevant to program managers and other decision makers (henceforth program managers) particularly when it addresses questions and assumptions that underpin program effectiveness.<sup>1</sup> Experiences across disciplines show that active production and dissemination of evidence is only one factor in the successful and broad implementation of evidence-based approaches (Nutley and Davies 2000, Cook et al. 2013, Langer et al. 2016). Accessibility, credibility, and

relevance are crucial attributes of the evidence base informing decision-making in conservation and development.

Within biodiversity conservation, a fundamental problem is the extent to which the “right” information is being produced (Sunderland et al. 2009). Unfortunately, conservation scientists and practitioners often have divergent interests and priorities, which can lead to the generation of evidence that is not immediately useful to programming

decisions (Habel et al. 2013). Bridging this “knowing-doing” gap requires that evidence-based approaches are valued by both individual managers and the institutions in which they operate; this builds learning organizations in which employees continually create, acquire, and transfer knowledge (Garvin et al. 2008). As a learning organization, USAID recognizes the importance of evidence-based development and supports concrete learning processes. USAID staff have roles to play in building an actionable evidence base and in leveraging processes that support learning.

This final unit of *Evidence in Action* highlights ways in which evidence can be shared and applied to strengthen biodiversity programs across USAID.

*Unit 4: Building the Evidence Base* is organized around three topics:

1. The persistent gap between evidence and its application in conservation programs (the knowing-doing gap)
2. Processes of science production that program managers and implementers can use to increase the “actionability” of the evidence base
3. Expanding the effectiveness of evidence-based approaches through organizational learning

After completing this unit, teams will be able to:

- Identify ways in which they can help bridge the knowing-doing gap in conservation
- Identify opportunities by which organizational learning can increase the effectiveness of evidence-based approaches



*Promoting conservation enterprises, such as selling handicrafts, is a strategic approach that is widely supported by USAID biodiversity funding; however, the evidence base suggests that conservation enterprise approaches often fail to achieve positive biodiversity outcomes. Photo credit: John Baptist Wandera/CIFOR.*

## BOX I: WHAT IS EVIDENCE?

[Automated Directives System \(ADS\) Chapter 201](#) defines evidence as the “[b]ody of facts or information that serve as the basis for programmatic and strategic decision-making in the Program Cycle. ... [Evidence] can be sourced from within USAID or externally and should result from systematic and analytic methodologies or from observations that are shared and analyzed” (page 145).

The term “evidence” refers to both (1) individual findings or pieces of information used to help make a decision or support a conclusion; and (2) the body of findings or information providing support for (or countering) a belief or claim.

Evidence can be generated through primary research, literature reviews, case studies, assessments, evaluations, and performance monitoring. Evidence for program effectiveness comes from real-world observations and documentation of program outcomes. Observations are not considered evidence unless they are used to investigate whether a belief or claim is true.

### 3. THE KNOWING-DOING GAP

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**S**uccessful implementation of evidence-based conservation is predicated on the existence of a body of evidence that is accessible and relevant. Even when relevant information exists, its use in decision-making may be of limited value to managers if it is not available in forms that are easy to access and use (Pullin and Knight 2005, Walsh et al. 2015). Section 3 in *Unit 2: Using Evidence* identifies USAID resources that can help staff search for and acquire existing information.

A widely recognized challenge in conservation practice is the gap between the knowledge generated by researchers and the information that managers actually use to inform their actions (Roux et al. 2006); that is, there is a separation between the work of academics and practitioners. This separation can lead to a mismatch between the topics being researched and the information needs of program managers and can diminish the relevance of biodiversity science to program managers (McNie 2007, also see Bayliss et al. 2013 for an example from the invasives literature).

Much of the discussion about bridging this knowing-doing gap has focused on changes to the supply side, that is, the flow of information from scientists to managers (Pullin and Knight 2009, Sunderland et al. 2009). The role that managers and their organizations can play in influencing the scope and topics of research being produced is

not as often discussed. As consumers of information, managers can position themselves as part of the solution by recognizing the decision points in their programming processes that would be strengthened by application of evidence; by building demand for “actionable science;” and by taking a more active role in generating evidence that can improve future programming decisions.



*The literature on management of invasive species tends to focus on the effect of invasive species control on impacted systems rather than the effectiveness of different management approaches for controlling invasive species (such as water hyacinth, which affects water bodies worldwide). Photo credit: cultivar413*

Several topics previously discussed in *Evidence in Action* can help program managers influence the actionability of the evidence base. Identifying, prioritizing, and correctly framing researchable questions (see Section 2 in *Unit 2: Using Evidence*) are necessary steps for building demand for scientific research that is immediately relevant for program managers. USAID policies and directives also place increased emphasis on designing programs to include stronger

evidence-generating components (see Section 5 in *Unit 1: Understanding and Evidence-Based Approach* and Section 5 in *Unit 3: Generating Evidence*), which put program managers and implementers in the role of producing evidence as well as using the evidence that is produced. The next section illustrates several ways in which program managers can influence the science production process to generate more actionable evidence.

## EXAMPLE I: BUILDING THE EVIDENCE BASE ON THE EFFECTIVENESS OF COMMUNITY FOREST MANAGEMENT

Donors have invested billions of dollars globally into community forest management as a strategic approach for conserving biodiversity and improving human well-being. Yet, the evidence base for the effectiveness of the approach remains weak (Bowler et al. 2010, 2012). For program managers at a USAID regional mission, the status of the evidence base has made it difficult for them to determine when investments in community forest management are likely to be effective.

The program managers at the mission recently completed a portfolio review. One important finding that emerged from the review was that the activities that the mission has been supporting could provide a major source of data on community forest management outcomes. Thinking that they could benefit from greater awareness of the breadth of experiences in community forest management across the Agency, they work with [Learning Lab to establish a workgroup](#) on the effectiveness of community forest management approaches. The group reviews [Bowler et al.'s](#) findings on the effectiveness of community forest management. They realize they have a wealth of information on outcomes for individual activities, but they lack a common set of indicators, baseline measures, and comparators that would allow them to generate more robust conclusions about effectiveness.

The workgroup contacts USAID's Office of Forestry and Biodiversity for technical assistance with convening the missions and other stakeholders for a workshop focused on developing a shared framework for investigating impacts. The framework uses a common data collection platform that identifies contextual factors, baselines, and standard measures of success and failure that program managers can choose to incorporate into standard assessments. By designing the framework and protocols prior to implementation, the program managers will be able to operationalize the framework in Monitoring, Evaluation, and Learning plans in future activities. This long-term strategy is expected to address the known gaps in the existing evidence base and generate more robust evidence on the effectiveness of community-based forestry.

Although this example is fictitious, existing networks that employ standardized protocols and use common indicators and data collection frameworks are already being used to generate a more robust evidence base on the effectiveness of strategic approaches (for an example see [Measuring Efforts to Combat Wildlife Crime: A Toolkit for Improving Action and Accountability](#)).

## 4. BUILDING AN ACTIONABLE EVIDENCE BASE

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**T**wo primary challenges to building an actionable evidence base are:

1. Producing the “right” evidence (i.e., a more relevant and accessible evidence base for biodiversity programming) and
2. Producing evidence in the “right” way (i.e., employing models of evidence production that lead to the use of evidence by managers).

Traditionally, the research community produces evidence and disseminates the findings, often exclusively through academic journals. It is then up to practitioners to assess the relevance of the research to decision-making. In most cases, however, it is difficult for researchers to make specific management recommendations that would be appropriate in every context. Recently, several authors have called for a model where managers take a more active role in shaping the research agenda and the outputs of research (e.g., Cash et al. 2003, Cook et al. 2013, Beier et al. 2017). These authors argue that

engaging in more iterative and interactive models of science production (see Figure 1 on page 13) helps ensure that scientific information is produced in a way that is more likely to lead to uptake in decision-making.

As both consumers of and contributors to this evidence base, program managers at USAID have a unique opportunity to shape the processes by which evidence is produced and the utility of the resulting evidence base to biodiversity programming decisions. Producing evidence that will effectively inform management decisions requires

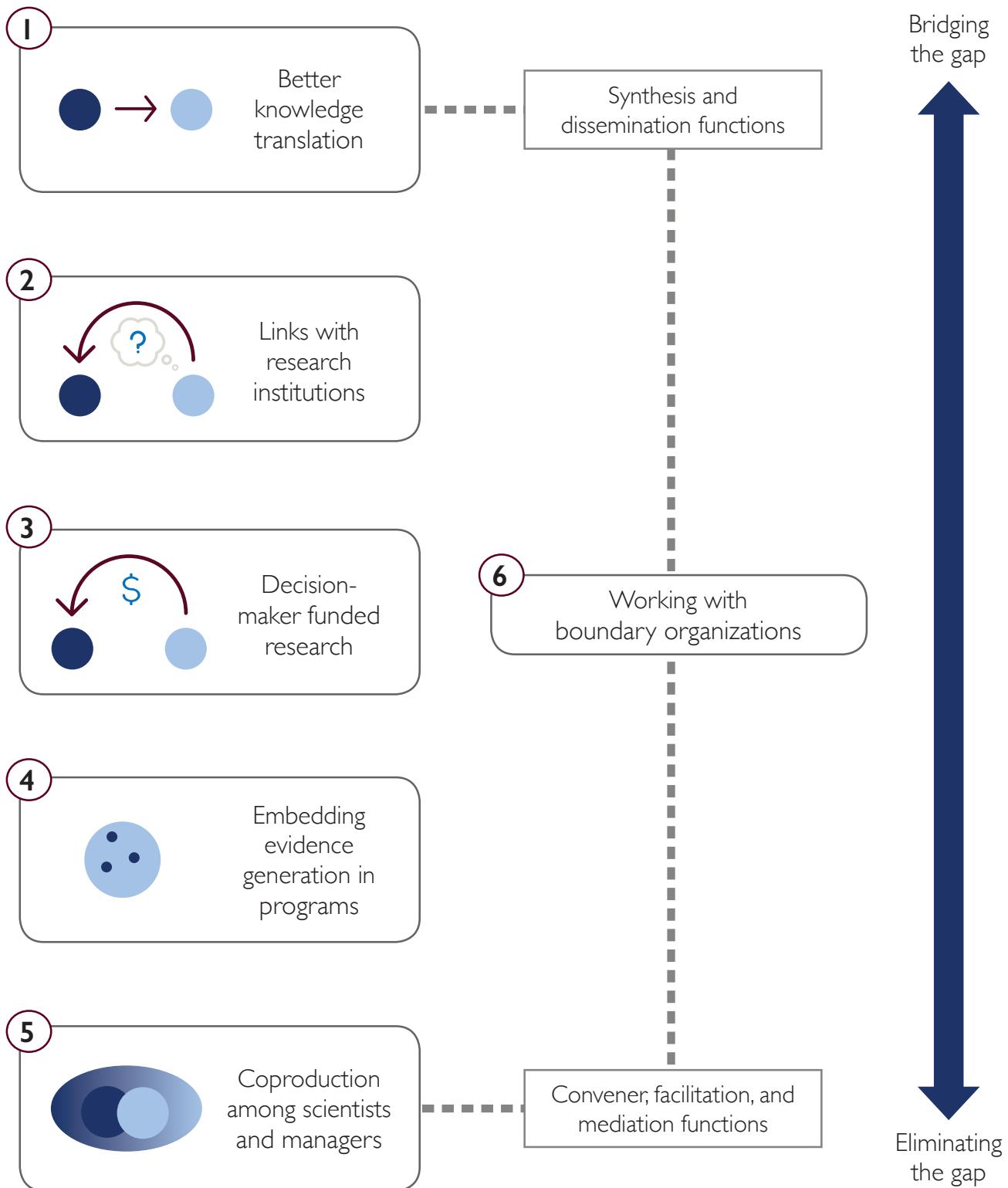
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*USAID’s Office of Forestry and Biodiversity worked together with Agency colleagues over two years to define the USAID Biodiversity and Development Research Agenda. The Agenda prioritizes the most critical questions for biodiversity conservation in the development context and provides a foundation for outreach to key partners interested in carrying out research that can better inform development programming decisions.*

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evidence that is salient (relevant to the needs of stakeholders), credible (authoritative and trusted), and

legitimate (developed by a process that is respectful of stakeholders' values and beliefs) (Cash et al. 2003).



**Figure 1: Institutional frameworks and processes designed to increase the actionable of the evidence base (each numbered item is further described in Section 4)**

## INTERACTIVE MODELS OF SCIENCE PRODUCTION

Many problems addressed in biodiversity programs involve complex phenomena that extend to spatial and temporal scales beyond the program's influence. Too often, managers working in this complex context receive scientific information in a linear "loading dock" approach that does not meet their needs (Beier et al. 2017). A loading dock approach (Cash et al. 2006) sees scientists producing information and leaving it to managers and other decision makers to find, interpret, and apply that information to program and policy decisions, with few checks on whether the information that has been produced will make it to managers or be useful to their decisions.

In a complex development context, alternative production models may be more efficient means for generating actionable science. A continuum of such science production models is presented in Figure 1 on page 13 and discussed below. These production models range from those that focus on making science more actionable (i.e., bridging the knowing-action gap between scientists and program managers while maintaining their separate roles) to producing more actionable science by redefining the way in which science is produced.

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*USAID funds the production of reviews and syntheses that translate research findings into actionable evidence relevant to the needs of program managers. See Section 7 for examples of evidence products for biodiversity programming.*

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**Better knowledge translation** (Figure 1, Item 1 on page 13) increases saliency by synthesizing and disseminating information in forms that are more useful to program managers and implementers (Salbach 2010). Some researchers may take on this role themselves as part of the process of generating evidence or by producing evidence syntheses around management issues. For example, systematic reviews and evidence synopses on conservation effectiveness are increasingly available and useful because they focus on synthesizing and disseminating evidence to program managers and implementers.

### Links with research institutions

(Figure 1, Item 2 on page 13) allow program managers to engage directly with research scientists. Fostering interactions between program managers and scientists working on related topics can provide managers with opportunities to increase the relevance of research activities. This approach has the advantage of potentially influencing the nature of the questions being addressed

by researchers, which is important when there is a mismatch between the evidence base and the information needs of program managers.

### **Decision-maker funded research**

(Figure 1, Item 3 on page 13) is commissioned and funded by donor agencies and other users of evidence in policy and program decisions. This approach seeks to increase the saliency of the resulting research products because program managers and other decision makers define the research agenda. However, the approach can fail when managers do not know what questions to ask to get useful answers or when researchers do not fully understand program managers' information needs. Careful articulation of the information need and its application on the decision problem can help managers and research partners ensure that such research produces actionable evidence.

*In 2011, USAID's Office of Forestry and Biodiversity partnered with the Center for International Forestry Research's (CIFOR) to implement a targeted research program about forests and food security, and improving knowledge about bushmeat (wild meat) consumption, marketing, and sustainability. USAID and CIFOR staff routinely collaborate on identifying research needs and approaches.*

*USAID teams can allocate funds to procure research activities designed to address specific, salient information gaps. For example, after reading a systematic review on the effectiveness of alternative livelihood as an approach for achieving biodiversity outcomes (Roe et al. 2015), USAID/Nepal worked with an independent researcher to explore the effectiveness of conservation enterprise approaches implemented as part of the Hariyo Ban Project. See Section 7 for examples of USAID mechanisms that can be used to fund research and other evidence-generating activities.*

**Embedding evidence-generating activities in programs** (Figure 1, Item 4 on page 13) can provide a direct means for aligning evidence production with its application. Evidence-generating activities can include independent research undertaken by scientists and technical experts within the Agency as well as analyses of program data acquired through monitoring, evaluation, and learning processes.<sup>2</sup> Scientists and technical experts working within the Agency can help establish the credibility of evidence by providing in-house expertise for the design and implementation of evidence-generating activities carried out by partners.

One challenge encountered with this approach is that it is often difficult to ensure that findings become part of the broader evidence base so that they benefit others at USAID and in the conservation community.

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*The midterm performance evaluation for the USAID/Philippines Ecosystems Improved for Sustainable Fisheries Project included evaluation questions aimed at understanding the factors and conditions influencing the achievement of key results. These evaluation questions were developed to test key assumptions underlying the effectiveness of strategic approaches.*

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**Co-production among scientists and managers** (Figure 1, Item 5 on page 13) has been suggested as a more reliable route to actionable science for the complex, long-term, and broad-scale challenges frequently encountered in natural resource management (Beier et al. 2017). Co-production requires a greater collaboration among researchers and practitioners in both producing and applying evidence (Roux et al. 2006). Managers, scientists, and other stakeholders jointly define the scope and context of the problem, research questions, methods, and outputs. Together they make inferences from those outputs and develop strategies for the appropriate use of products.

**Working with boundary organizations** (Figure 1, Item 6 on page 13) facilitates connections between science users and science producers. Boundary organizations (Guston 2001, Cook et al. 2013) are environmental organizations that span the boundary between science and management. They can facilitate communication between scientists and program managers (serving a knowledge transformation function), both by helping ensure that scientists have a better understanding of program managers' needs and by synthesizing and disseminating research to managers in relevant and useful forms. Boundary organizations are also uniquely positioned to convene and support diverse partners in the process of co-producing actionable science.

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*The Science for Nature and People Partnership convenes researchers and practitioners from over 200 institutions to identify solutions to global challenges at the intersection of nature conservation, sustainable development, and human well-being. USAID was a participant in the Partnership's Evidence-Based Conservation working group to advance the use and availability of science for evidence-based conservation decisions.*

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# 5. EVIDENCE IN ORGANIZATIONAL LEARNING

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**L**earning, or the acquisition of knowledge and skills, is central to addressing the knowing-doing gap. The evidence-based approach described in the preceding units of *Evidence in Action* is a learning process for acquiring knowledge about what works and what doesn't so that program managers can make better program decisions (Kvernbeck 2013). The purpose of evidence is to show that a method is effective; but acquiring and generating evidence is the means to an end (i.e., successful programs), not an end in itself.

Thus far, units 1-3 of *Evidence in Action* have focused largely on supporting individual learning, that is, using evidence to support particular decisions made by program managers and teams (see Box 2 on page 19 about how USAID staff can become evidence champions and support these efforts). But within organizations, the exchange of knowledge among practitioners is important because it facilitates learning at broader scales (see [Making Use of the Portfolio: Organizational Learning at USAID](#)).

Knowledge relevant to decisions in one context may be applicable in similar contexts, but without mechanisms for transferring knowledge created by individuals and groups to the larger organization, there is little opportunity for organizational learning. Organizational learning increases the efficiency of

evidence-based approaches because it increases the availability of and access to knowledge for program managers and other decision makers within the organization.

Within USAID, there are a number of efforts and processes that support learning across programs and organizational units. These vary in scale and the extent to which they address the multiple components of learning: knowledge creation, knowledge transfer, and knowledge retention.<sup>3</sup> A few examples are highlighted below:

**Portfolio Reviews** provide an opportunity to assess the generalizability of assumptions across various program contexts. Generalization is critical to the interest of applying findings to people and situations other than those being

directly studied (Polit and Beck 2010). Portfolio reviews are typically held at the Office or PAD level. They can be a particularly effective means for generating evidence when used to test common assumptions across programs that have standardized data collection methodologies in place.

**Office of Forestry and Biodiversity Integration Working Groups** convene staff from across USAID to advance the integration of biodiversity conservation with other sectors, such as food security, health, and global climate change. These working groups contribute to knowledge generation, knowledge transfer, and knowledge retention by identifying evidence gaps, commissioning targeted research, and engaging in evidence dissemination activities within and beyond USAID.

The **USAID Biodiversity Conservation Gateway** is a publicly available information portal with a rich repository of USAID experience implementing commonly used strategic approaches. The Gateway also hosts USAID's **Biodiversity Cross-Mission Learning Program**<sup>4</sup>, which systematically captures and shares lessons on theories

of change for common conservation strategic approaches in the USAID biodiversity portfolio. The learning program takes a “community of practice” perspective on knowledge creation, knowledge transfer, and knowledge retention. Collaborative learning groups develop and pursue a shared learning agenda of questions and topics focused on specific theories of change.

**Collaborating, Learning, and Adapting (CLA)** is how USAID operationalizes adaptive management in the Program Cycle. It is a holistic approach to organizational learning, comprised of practices and tools for strategic collaboration, program learning, and adaptive management throughout the Program Cycle, and the culture, processes and resources that enable these practices. The learning component of CLA draws on evidence and experience to design programs that are grounded in good practice and appropriate for the local context.<sup>5</sup> The CLA framework and the **CLA Maturity Tool** help USAID missions plan and implement CLA approaches, including the use and generation of evidence, to assist them in achieving their development objectives.

## BOX 2: HOW TO BE AN EVIDENCE CHAMPION

Even as the evidence base for biodiversity programming grows, the issue of “evidence complacency” (Sutherland and Wordley 2017) continues to be a problem among program managers and policy makers.

Evidence champions are individuals who promote the use of evidence-based approaches as an integral part of the design and implementation of USAID programs. Evidence champions implement best practices for the use and generation of evidence within their work by:

- Being transparent about the strength and quality of the evidence used to support program decisions and encouraging partners to do the same
- Seeking out opportunities to build the evidence base on the effectiveness of strategic approaches and the validity of key assumptions
- Participating in organizational learning networks and communities of practice to exchange knowledge about what works and what doesn’t work in conservation
- Encouraging and supporting staff and partners who are interested in acquiring the necessary skills for evidence-based approaches

## 6. SUMMARY OF KEY CONCEPTS

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- Improved capacity is rarely enough to sustain the adoption of evidence-based approaches on its own. Program managers and other decision makers must also have access to an appropriate and useful evidence base.
- A widely recognized challenge in conservation practice is the gap between the knowledge generated by researchers and the information that managers actually use to inform their actions (i.e., the knowing-doing gap). As consumers of information, managers can position themselves as part of the solution by building demand for actionable science and engaging in science production processes that build avenues for uptake into biodiversity programming.
- Managers can influence the salience and availability of the evidence base by engaging in interactive models of science production. These production models range from those that focus on making science more actionable (i.e., bridging the knowing-action gap between scientists and program managers to producing more actionable science by redefining the way in which science is produced.
- Organizational learning increases the efficiency of evidence-based approaches because it increases the availability and access to knowledge for program managers and other decision makers within the organization. Various efforts and processes exist within USAID to support learning across programs and organizational units.

# 7. FURTHER READING

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Knowledge transfer and information exchange:

[Synthesis: sharing ecological knowledge – the way forward](#) (Born et al. 2009).

This synthesis summarizes the factors important for improving ecological knowledge transfer from the academic perspective. The authors discuss partnering with local institutions and research centers and participatory research methods as approaches promoting effective knowledge exchange.

[Bridging the gap: How can information access and exchange between conservation biologists and field practitioners be improved for better conservation outcomes?](#) (Sunderland et al. 2009).

This paper identifies key issues that limit information exchange between conservation scientists and field practitioners and suggests new approaches for addressing this challenge. A case study from the Kilim-Ijim project in Cameroon is presented.

[Doing more good than harm – building an evidence-base for conservation and environmental management](#) (Pullin and Knight 2009).

This paper discusses the challenge of building a shared evidence base to improve the effectiveness of strategic approaches for conservation and environmental management and

describes the relevance of systematic review for evidence-based approaches to conservation.

Generating actionable science:

[Bridging the science-management divide: Moving from unidirectional knowledge transfer to knowledge interfacing and sharing](#) (Roux et al. 2006).

This paper proposes that co-production of knowledge through collaborative learning between experts and users is a more suitable approach than traditional systems of knowledge transfer for information exchange between researchers, policy makers, and resource managers.

[Achieving conservation science that bridges the knowledge – action boundary](#) (Cook et al. 2013).

This paper identifies key challenges for generating science that will effectively inform management decisions and highlights four institutional frameworks facilitating science that informs management.

[A how-to guide for coproduction of actionable science](#) (Beier et al. 2017).

This paper outlines recommended practices for co-production as a means for generating actionable science. Although the paper focuses on the coproduction of actionable science for

climate change adaptation and natural resource management, the approach is also relevant to other complex natural-human systems.

*Learning and learning organizations:*

[Effective conservation planning requires learning and adaptation](#) (Grantham et al. 2010). This paper discusses an active approach to adaptive management which uses the purposeful and experimental application of different conservation actions to yield greater knowledge through rapid and targeted learning. The authors identify challenges facing this approach and suggest that implementing learning systems and active adaptive management within programs requires refinement of existing institutions and practices.

Institutional learning programs provide a platform to capture and share institutional knowledge acquired through an evidence-based approach. USAID's [Biodiversity Cross-Mission Learning Program](#) currently supports two Collaborative Learning Groups that focus on capturing and sharing knowledge about the effectiveness of conservation enterprises and approaches for combating wildlife trafficking.

## EXAMPLE EVIDENCE PRODUCTS FOR BIODIVERSITY PROGRAMMING

USAID's Office of Forestry and Biodiversity supports the development of the evidence base on topics relevant to biodiversity programming.

[Stakeholder Engagement for Biodiversity Conservation Goals: Assessing the Status of the Evidence](#) (Sterling et al. 2016). This comprehensive review by USAID's research partner, the American Museum of Natural History, explores the effectiveness of stakeholder engagement approaches used towards achieving conservation goals. The review identifies patterns of success and failure in these efforts to inform biodiversity programming at USAID.

[Fishing for Food Security: The Importance of Wild Fisheries for Food Security and Nutrition](#) (USAID 2016). A product of the Food Security Integration Working Group, this briefing book explores the role of wild fisheries in global development and highlights the importance of fisheries in nine [Feed the Future](#) countries.

### Rewards and Risks Associated with Community Engagement in Anti-Poaching and Anti-Trafficking (Wilkie et al.

2016). This paper explores the roles communities can and should play in approaches to address wildlife crime taking local social, political, and economic contexts into account.

### Integrating Livelihood and Conservation Goals: A Retrospective Analysis of World Bank Projects (USAID 2017).

This study reviews a database of World Bank project evaluations to build the evidence base around the integration of biodiversity conservation and livelihood goals.

## EXAMPLE USAID FUNDING MECHANISMS

A number of USAID mechanisms fund research and other evidence-generating activities. In addition to those listed here, many USAID operating units have existing partnerships with universities that may be leveraged to support evidence needs

### Partnerships for Enhanced Engagement in Research (PEER)

is a competitive grants program administered by the United States National Academy of Sciences. PEER invites scientists in developing countries to apply for funds to support research and capacity-building activities on topics of importance to USAID.

### Expanding the Reach of Impact Evaluation

(ERIE) is part of USAID's Monitoring, Evaluation, Research and Learning Innovations Program. ERIE is an approach to conducting retrospective long-term impact evaluations of completed USAID programs.

# ENDNOTES

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- 1 Box 2 in *Unit 1: Understanding an Evidence-Based Approach* provides further discussion of how a team's knowledge and assumptions about the program context, proposed solutions, and effectiveness of implemented actions influence program success.
- 2 According to the [\*\*USAID Scientific Research Policy\*\*](#), research "refers to systematic and creative activities undertaken to increase the knowledge base... Being hypothesis-driven, testable, and independently replicable are typical qualities of the research process" (page 6).
- 3 [\*\*Making Use of the Portfolio: Organizational Learning at USAID\*\*](#) provides further discussion of organizational learning at USAID.
- 4 Further information about the approach used by the Biodiversity Cross-Mission Learning Program is provided in the [\*\*Framework for the Biodiversity Cross-Mission Learning Program\*\*](#).
- 5 [\*\*How Missions are Implementing Collaborating, Learning and Adapting\*\*](#) provides examples of the application of the learning component of CLA in local contexts.

# GLOSSARY

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**Actionable science:** Data, analyses, projections, or tools that can support decisions in natural resource management (Beier et al. 2017). In *Evidence in Action*, the concept is applied to the evidence base to describe a more relevant and accessible evidence base for biodiversity programming.

**Adaptive management:** An intentional approach to making decisions and adjustment in response to new information and changes in context (ADS Chapter 201, page 140).

**Boundary organizations:** Environmental organizations that facilitate connections between science and management.

**Community of practice:** A group of practitioners that interact regularly to deepen their knowledge and expertise about a shared concern, problem, or interest in a topic.

**Effectiveness:** The degree to which an implemented project or activity achieves intended outcomes. Understanding the effectiveness of a strategic approach involves testing the assumptions that underlie a program's design.

**Evidence:** The body of facts or information that serve as the basis for programmatic and strategic decision making in the Program Cycle (ADS Chapter 201, page 145). Used in *Evidence in Action* to refer to (1) individual findings or pieces of information used to help make a decision or support a conclusion; and (2) the body of findings or information providing support for (or countering) a belief or claim related to effectiveness or attribution.

**Evidence champions:** Individuals who promote the use of evidence-based approaches as an integral part of the design and implementation of USAID programs.

**Evidence-based approach:** The conscientious, explicit, and judicious use of current, best evidence in program decisions. An evidence-based approach encompasses identification, use, and generation of evidence to increase program effectiveness.

**Knowing-doing gap:** The gap between the knowledge generated by researchers and the information that project managers actually use to inform their actions.

**Knowledge translation:** A process that attempts to increase the relevance of scientific research by synthesizing and disseminating information in forms that are more useful to program managers and implementers.

**Program (and Programming):** Used in *Evidence in Action* as a general term to encompass USAID project and activity levels.

**Saliency:** Used in *Evidence in Action* to refer to the relevance of evidence to the needs of stakeholders.

**Strategic approach:** A set of actions with a common focus that work together to address specific threats, drivers, and/or opportunities in order to achieve a set of desired results.

# LITERATURE CITED

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**U.S. Agency for International Development  
1300 Pennsylvania Avenue, NW  
Washington, D.C. 20523  
Tel: (202) 712-0000  
Fax: (202) 216-3524  
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