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Lessons from a decade of practicing
adaptive management to improve
biodiversity conservation

MEASURING IMPACT II

CONTRACT INFORMATION

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PHOTOGRAPHY

All photos by Jason Houston for USAID

CAPTIONS

Cover photo: Lifelong fisherman Elias Ruta works as a tour guide and ranger for Siete Pecados Marine Park, Philippines.
Photo this page and next: View of Coron, Philippines from the Mount Tapyas Viewdeck.
Back cover photo: Underwater scene including healthy corals on a reef near Twin Lagoon off Coron Island, Philippines.

ACRONYMS

ADS	Automated Directive System
AIRR	Amazon Indigenous Rights and Resources
AREP	Amazon Regional Environment Program
B+WISER	Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience
CCP	Conservation and Communities Project
CINCIA	Center for Amazonian Scientific Innovation
CINCIA-ACIERTA	CINCIA Alliance for Science and Ecosystem Recovery
CLA	Collaborating, Learning and Adapting
EFAM	Ecosystems Approach to Fisheries Management
HEARTH	Health, Ecosystems and Agriculture for Resilient, Thriving Societies
ICAA	Initiative for the Conservation of the Andean Amazon
MEL	Monitoring, evaluation, and learning
MI	Measuring Impact
MI2	Measuring Impact II
MOU	Memorandum of Understanding
RTI	Research Triangle Institute
SCIOA	Strengthening the Capacities of Indigenous Organizations in the Amazon
USAID	U.S. Agency for International Development



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A red-fronted lemur
(*Eulemur rufifrons*) in
Kirindy Mitea National
Park, Madagascar

I. INTRODUCTION

A. Background

The U.S. Agency for International Development (USAID) works globally to conserve biodiversity and protect the environment that underpins the livelihoods and well-being of hundreds of millions of people. In the face of rapidly escalating threats to nature—and the increasingly complex social and economic contexts in which USAID works—the Agency is committed to continuous learning to achieve its goals.

To that end, USAID has made **adaptive management** central to the Agency's Automated Directive System (ADS), its internal operations policy. The ADS defines adaptive management as "an intentional approach to making decisions and adjustments in response to new information and changes in context." This approach prioritizes ongoing learning and adapting based on evidence to maximize USAID's investment in programs that are most effective and remain nimble in the face of ongoing change and uncertainty.

Supporting Missions and Partners to Embrace New Adaptive Management Practices

USAID launched the Measuring Impact (MI) contract in 2012, followed by Measuring Impact 2 (MI2) in 2018, to support USAID Missions and partners in implementing adaptive management in biodiversity programs. Through MI/MI2, USAID's Washington-based Biodiversity Division provided technical field support to 38 Missions; worked with myriad staff champions throughout the Agency to strengthen enabling conditions; and led cross-Mission learning groups. In the process, this diverse group of stakeholders co-created, piloted, and refined a set of practices for integrating evidence-based adaptive management into every phase of the Program Cycle.

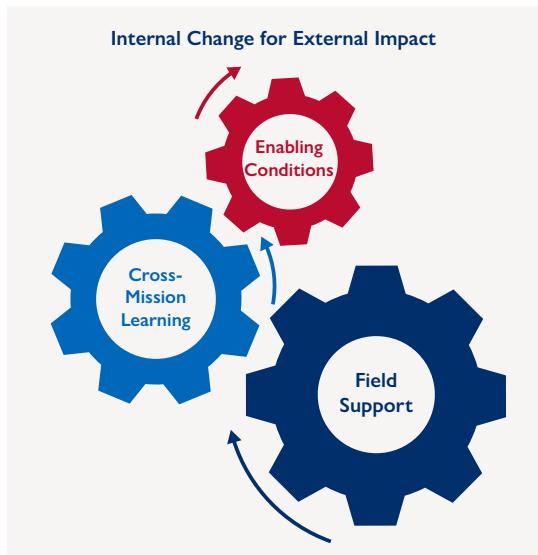


Figure 1. Measuring Impact: Fostering internal change for external impact

B. Learning Synthesis Overview

Gleaning Insights from a Decade of Adaptive Management

After more than a decade of adaptive management implementation, USAID undertook a learning initiative to understand conservation practitioners' perceptions of applying adaptive management practices and their influence on program effectiveness. USAID conducted interviews with:

- Staff at three Missions that received MI and MI2 support, including USAID/Peru, USAID/Philippines, and USAID/Madagascar
- Local implementing partners
- Biodiversity Division and MI/MI2 staff supporting the three Missions

The learning from these interviews are synthesized in this report—both in the form of key findings across all three Missions and case studies from each country.



Photo credit goes here

Monja Mahaefra, aka “Dadilahy,” separating peanuts from peanut plants in Kirindy Village, Madagascar. More sustainable peanut farming is intended to reduce pressure to clear nearby forests.

II. KEY FINDINGS

Interviewees from all three Missions believed adaptive management practices improved decision making and program effectiveness.

While experiences varied by region, the team found commonalities in the way interviewees from the Mission, local implementing partner organizations, and the MI/MI2 contracts described these programmatic improvements. They cited a stronger approach to program

logic and design, a more strategic use of monitoring and evaluation, and an intentional practice of collaborating, learning, and adapting. They also emphasized that for adaptive management to be sustained and locally led, there need to be champions in multiple roles who feel motivated and empowered to support these practices..

Following are specific insights related to each of three learning questions posed during the interview process.

Learning Question 1.

What was your experience applying adaptive management practices and their influence on biodiversity conservation programming?

Developing shared strategic frameworks during activity startup helps unite multiple stakeholders around programmatic assumptions. But the process needs to be tailored for different audiences.

The biodiversity programs at the three Missions adopted the process of engaging multiple stakeholders during activity startup to develop shared strategic frameworks, including the situation model and results chain.¹ This process aligned stakeholders around a common understanding of context and goals and intentionally made previously implicit assumptions explicit so they could be questioned and refined.

USAID/Philippines Monitoring, Evaluation, and Learning (MEL) Specialist Ian Joey Tajonera said, “The theory of change helped the team understand and communicate how they were addressing the threats to biodiversity in a holistic manner—i.e., how multiple strategic approaches work together synergistically at multiple levels of government to have an impact.” Katia Villanueva, USAID/Peru Project Management Specialist and Contracting

Officer’s Representative for SERVIR Amazonia, discussed how the process pushed partner organizations from multiple countries to gather more information, “We realized that, as a first step, we needed to go back and gather additional stakeholder input into the priorities in each of the countries within the Amazon region.”

Several interviewees stressed the importance of tailoring the strategic planning process to different audiences and being mindful of the visual models used. One of the USAID/Peru activities developed a clever analogy of taking a trip down a river to communicate the theory of change, which resonated with partners from multiple countries who spoke different languages better than the traditional “box and arrow” diagrams. Another activity in the region created a journey map. USAID/Philippines Environment Officer Randy John Vinluan stressed the need to take different stakeholder needs into account, “Theory of change fatigue is real. We learned that perhaps the team doesn’t need a theory of change for every strategy at every site ... We also learned the level of detail in a theory of change depends on the audience. Some

¹ [Situation Model](#): A diagram that displays the findings from a context/problem analysis in a logical, causal fashion to convey the most important direct threats and drivers affecting biodiversity focal interests. [Results Chain](#): A diagram that clearly states the expected results and assumptions between the outcomes of a proposed strategic approach that make up the program’s theory of change.

audiences, like the implementing team, are interested in spelling out the details, while others, like government officials, may be only interested in the highest level.”

Local community input is key to ensuring strategic frameworks contain an accurate depiction of local context.

Interviewees stressed the need to involve diverse stakeholders, including local communities and resource users, in developing strategic frameworks. This helps ensure incorporation of local knowledge and values and generates more support for conservation activities. When designing a second-generation activity to improve fisheries management in the Philippines, the team worked with local communities to determine why some of the progress made under the previous activity back-slided. Ian Joey Tajonera said, “We recognized that we needed to bolster our efforts to increase the institutional capacity of local organizations if our outcomes were to be durable.” Local stakeholders also shared the importance of including women in fisheries management to improve community buy-in and sustainability, and actions were incorporated to address this input.

The co-design process is particularly useful for ensuring the strategy is grounded in a firm understanding of local context and priorities.

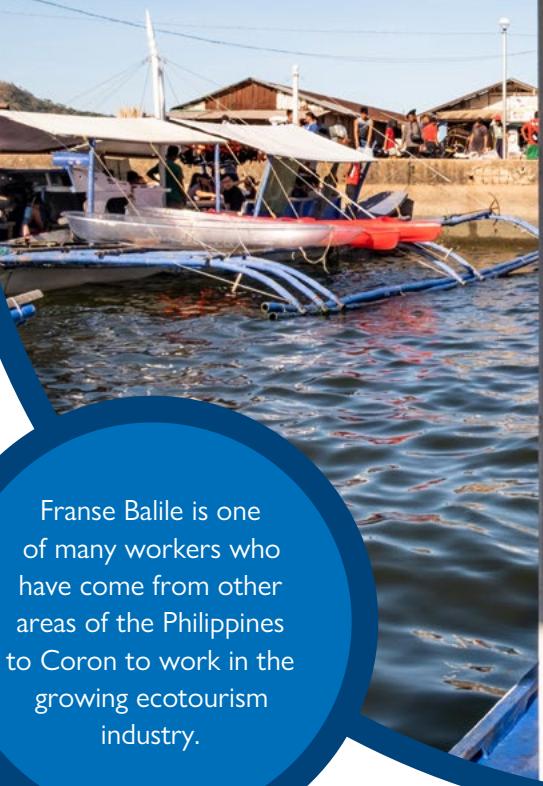
USAID and implementing partner staff who were part of co-developing an activity reflected on the significant value the process provided, including time to think more deeply about context and goals; a better understanding of learning needs; the ability for discussions to be

locally led; and the development of a strong framework on which to build specific actions for annual work planning.

Former Environment Officer for USAID/Madagascar Tiana Razafimahatratra said, “When we designed the Conservation and Communities Project (CCP) in 2014, we didn’t draw as extensively as we could have on the knowledge of other stakeholders. Now, after almost a decade of experience with multiple activities, we are going full cycle on our learning loop and incorporating what evidence we have for what works and what doesn’t in the design of new activities. We decided to facilitate a co-design process with our successful applicants and incorporate much broader stakeholder input into the [latest] design process. Reflecting on this experience and wider input has resulted in a very different way to organize the activities under our project, a way that I think will be much more effective.”

Activity teams are developing tailored monitoring and evaluation approaches based on learning needs.

While many activities focus monitoring and evaluation efforts on collecting data for reporting on performance indicators, some have developed additional approaches designed to meet learning needs and improve program effectiveness over time. In South America, the Strengthening the Capacities of Indigenous Organizations in the Amazon (SCIOA) activity conducted an initial assessment to determine the priorities of Indigenous organizations in the Amazon. The findings informed key results, including improved financial and administrative



Franse Balile is one of many workers who have come from other areas of the Philippines to Coron to work in the growing ecotourism industry.

capacity, which were then tracked during implementation. The Protect Wildlife team in the Philippines developed learning questions related to uncertainties in the assumptions in their theory of change. Research Triangle Institute (RTI) International MEL Specialist Christine Ruba said, “We realized that our monitoring data for performance indicators would not be sufficient to address the questions, so we decided to gather additional information using key informant interviews and focus group discussions with our beneficiaries. We asked them about how the technical assistance we were providing would result in improved management, for example monitoring and reporting non-compliant activities. Based on this information we adapted how we were providing technical assistance, for example training materials.”



Teams often find data collection for learning questions more useful than performance indicators in driving program adaptation and improvement. But they are constrained by time and resources to gather this additional information.

Interviewees understood the need to collect data on performance indicators to report to USAID, but found the information generated through this process was not always as useful for making programmatic decisions. Many shared that learning questions had greater utility when it came to adaptive management and improving program effectiveness. However, if time and resources for addressing learning questions are not built into the original contract or agreement, it is difficult to generate the evidence needed.

USAID/Madagascar MEL Specialist Tovo Rasolofoharivelox, described, “We identified learning questions that, if addressed, would have been useful in not only tracking results, but more deeply exploring critical programmatic assumptions. I thought this was a useful practice. However, because data collection for learning questions was not planned for during the contracting phase, we didn’t have the budget to collect data in addition to that needed for standard indicators. Instead we used the questions as a guide for facilitating our internal discussions.” Other interviewees shared how—in cases where lack of resources constrained formal evidence gathering—locally led pause and reflect sessions framed around learning questions proved useful for gaining insights to improve decision making.

Regular pause and reflect sessions were an important opportunity to revisit assumptions, examine new evidence, and adapt actions as needed.

Interviewees provided many examples of how pause and reflect sessions were used to revisit strategic frameworks and underlying assumptions, update them with new information, and adapt actions as needed. Livelihood Specialist in Madagascar Abel Rakotonirainy noted, “The pause and reflect sessions provided an opportunity for the entire team to come together to discuss what was and was not working across the various strategies and the many communities that we were supporting.”

These sessions were particularly useful at helping teams navigate changes in context, such as the COVID-19 pandemic. Forest Alliance Chief of Party Marioldy Sanchez said, “When we reviewed our situation model during the last pause and reflect session, we discussed that the intensity of land invasions was increasing even more because of the COVID pandemic. We had been supporting communities to report to the authorities, but there was a lower response from the government. We adapted our approach to working with organizations that have a political role in advocating for native communities in terms of getting the needed government support for rights and conservation of their territories. As a result, these advocacy organizations are now more engaged with doing joint work with the communities where we work and advocating for more support from the government.”



Toribio Tuesta Rios prunes the Cacao (*Theobroma cacao L.*) trees in his agroforestry plot in Comunidad Nativa Sinchi Roca, Ucayali, Peru. With local implementing partner AIDER, USAID is working with Indigenous communities to implement more sustainable livelihoods to reduce forest clearing in the Peruvian Amazon. Cacao is an important crop for conservation efforts because it is native, grows in the shade of other native trees, and is a relatively high-value harvest.

Learning Question 2.

What changes have you seen in your work as a result?

USAID and implementing partner staff agreed that adaptive management practices led to improved programming, not only within the life cycle of one activity but across multiple generations of activities.

Interviewees cited multiple examples in which adapting programs based on learning helped improve effectiveness over time. In the Philippines, for example, Ian Joey Tajonera described how the Mission refined its strategic approach over multiple generations of activities to better address the gender component of fisheries management saying, “During ECOFISH, we were simply disaggregating our data by gender for reporting purposes because it was a requirement of USAID. But during Fish Right, we conducted an assessment to better understand the bridges and barriers for gender inclusion. We knew from ECOFISH that women played an important role in fisheries management and the assessment validated that assumption. So now Fish Right is working to assure that there are real outcomes for women’s participation in decisions about fisheries management. Over time, we are getting more and more precise about what we are trying to understand so that we can continue to adapt accordingly and improve our effectiveness.”

USAID/Peru Environment Specialist Monica Romo described how the process of pausing and reflecting on the theory of change and

adapting their strategic approach has become the way of doing business for the Amazon Indigenous Rights and Resources (AIRR) activity, “Every pause and reflect session, we would review all of these elements, and they became a bit more refined each time. We moved from generally recognizing that the capacity needs of the Indigenous organizations are important, to defining in specific terms the types of leadership and advocacy skills we needed to support for Indigenous organizations to be more effective advocates for their rights.”

Adaptive management practices were particularly useful in helping teams navigate the impact of COVID-19 on programming.

Having already established a shared theory of change with explicit assumptions, along with a regular pause and reflect practice, meant that activity teams had mechanisms in place to help respond to sudden shifts in context, such as COVID-19. In the Philippines, pandemic restrictions kept local fishers participating in the Fish Right activity from connecting with buyers at the market. The team was able to pivot and create an online platform that ultimately removed retail middlemen and empowered small fishers to connect directly with consumers. This innovation is still in practice today.



Luzviminda Antonio unloads sardines at a small port where local fishers bring their catch to sell to local buyers in Coron, Palawan, Philippines. USAID and its community partners have been working in this region for more than a decade to reduce illegal, unreported, and unregulated fishing and improve livelihoods for local fishers while protecting marine biodiversity.

Adaptive management helped teams identify and fill information needs within one activity cycle, but they lacked sufficient systems for sharing learning across cycles.

While teams are improving their capacity to articulate and fill evidence gaps within the life cycle of one activity, they still lack adequate systems for documenting and sharing lessons across activities or among practitioners on a broader scale. While cross-Mission learning groups are seen as useful, they are limited in the topics covered. Many interviewees

described how sharing both successes and challenges was important for improving conservation practice over time. Chief of Party for Conflict Fisheries in Peru Camila Germana said, “When you know you might not be able to achieve desired results because of the many barriers, you have to embrace the power of learning. If we share our learning, including our challenges, as a conservation community, we can be more effective next time ... We really need to assure sharing these lessons through many channels.”

Learning Question 3.

What was the role of champions in applying adaptive management to improve effectiveness toward biodiversity and integrated outcomes?

It is important to have champions at all levels reinforcing the value of adaptive management and modeling best practices.

Interviewees stressed that adaptive management practices cannot be imposed from the top down. Adoption requires champions across multiple roles and levels working together. The champions identified by interviewees held a wide range of roles on the project or activity team, including the USAID Contracting and Agreement Officers’ Representatives, implementing partner Chief of Party, strategic approach or site leads, and MEL specialists. USAID/ Philippines Environment Officer Becky

Guieb said, “Some of the best champions for adaptive management are the team members responsible for MEL. They are the ones assessing the indicator data and understanding progress on results. They always have the assumptions of the theory of change in mind, can explain the theory of change to others, and remind the team that this is how we are understanding if and how we are making progress on our goals and reporting to USAID.”

Despite serving in different roles, how strong champions promoted adaptive management with their teams looked similar across the sites. Champions were able to simultaneously understand the many details

and assumptions connected to strategies while keeping teams focused on the big picture. Champions encouraged teams to challenge assumptions in a non-threatening way, being open to constructive dialog and iteration while nurturing an atmosphere of trust and collaboration among the entire team. They had an open mindset and helped teams think beyond short-term results, stayed focused on long-term goals, and advocated for ways to sustain and scale impact.

USAID staff have a key role to play in creating a culture of learning.

Interviewees expressed how important it is for USAID staff to set the tone for a learning culture where implementing partners can discuss both successes and challenges, and evidence is used to adapt and improve. Marioldy Sanchez said, “Our Agreement Officer’s Representative creates an environment to discuss challenges and identify opportunities for us to expand our impact. He goes out of his way to explain our program to others and advocate for innovative partnerships for us to scale our model to more communities. It is a great feeling to know we are on the same team in trying to address barriers and discover creative ways to achieve greater impact.” In the Philippines, implementing partner Nygiel Armada spoke about USAID Environment Officer Becky Guieb saying, “Openness between the Contracting Officer’s Representative/Agreement Officer’s Representative, like Becky, and implementing partners allowed us to achieve more adaptability in the programming, especially given our work is in contexts of lots of uncertainty. Becky was essential to creating

a learning culture, where typically the effects of funder-implementer dynamics inhibit the free flow of ideas. She was great at promoting a sense of trust, empowerment, and engagement that contributed to the team’s ability to adaptively manage the program.”

Interviewees stressed the importance of building in-country capacity to facilitate adaptive management practices to increase local input and ownership over time.

In some cases, MI/MI2 staff coached in-country staff from implementing partners to facilitate adaptive management processes with their activity teams. In Madagascar, staff from both activities participated in an MI2-led training to strengthen their capacity in pause and reflect processes and to transition workshop preparation and facilitation to local members of the implementing partner team.

Some Mission staff also participated in training, becoming Biodiversity Advisors who promote and support adaptive management in their Missions. MI/MI2 Facilitator Marcia Brown said, “Facilitating annual pause and reflect workshops for the majority of USAID/Peru activities required a significant amount of MI2 staff time. The recent development of a pause and reflect guide and toolkit will allow implementing partners to take more ownership of the process and reduce the need for outside facilitators.”

III. CONCLUSIONS

Perceptions synthesized from more than 30 interviews provide a compelling picture of how adaptive management drives more strategic program and activity design and increases the use of learning. They also offer insights into what is still needed to drive culture change to further support adaptive management.

Many activities have embraced the process of convening multiple stakeholders during program design to develop a theory of change and unite teams around shared assumptions and goals. In some instances, teams completed this process after the design phase in an effort to retroactively strengthen the assumptions driving their strategic approaches and goals.

Interviewees recognize the importance of identifying evidence gaps and articulating learning questions during program design. Many stressed there is not sufficient time or resources built into the program from the beginning for gathering information beyond what is needed for reporting on performance indicators. They noted pressure from the Program Office to prioritize (and minimize the number of) performance indicators often conflicts with efforts by the environment team to support adaptive management and learning.

In the Philippines, where adaptive management practices have been used in

multiple generations of activities, Mission staff now champion the use of learning questions to guide decision making. This speaks to a sentiment shared by interviewees from all three sites that while there was a learning curve and some initial cultural resistance, the number of champions grew as the benefits of the adaptive management practices became clear.

Many activities build regular pause and reflect opportunities into implementation as a way to revisit assumptions in the theory of change and adapt as needed. The use of evidence beyond the team's existing knowledge in these reviews is still relatively low, as the lack of resources hinders their ability to collect new data around changing context or programmatic assumptions. Many interviewees cited examples of using anecdotal evidence from the teams' experiences to support program adaptations.

Several interviewees pointed out the need for better systems to capture and share learning beyond the life of the activity. While learning has transferred across multiple generations of activities in the Philippines and Madagascar, this is primarily due to the same Mission and implementing partner staff being employed over time and carrying this institutional knowledge with them. More formal mechanisms for documenting challenges and learning are necessary. Interviewees did not find program reports an ideal source for learning as they tend to focus more heavily

on positive performance outcomes than on challenges or lessons learned. Interviewees said the Development Experience Clearinghouse is a repository that needs to be improved, including making it more searchable if it is to be useful. Some said the cross-Mission learning groups are useful for exchanging lessons, but only on a limited number of topics.

Interviewees described some dedicated efforts to train local partners in facilitating adaptive management practices, and stressed even more investment in capacity building would be valuable. Engaging local implementing partners and stakeholders in adaptive management processes at every stage of program design, implementation, and learning was seen by all interviewees as critical to the understanding of local systems and context and helping ensure the sustainability of outcomes.

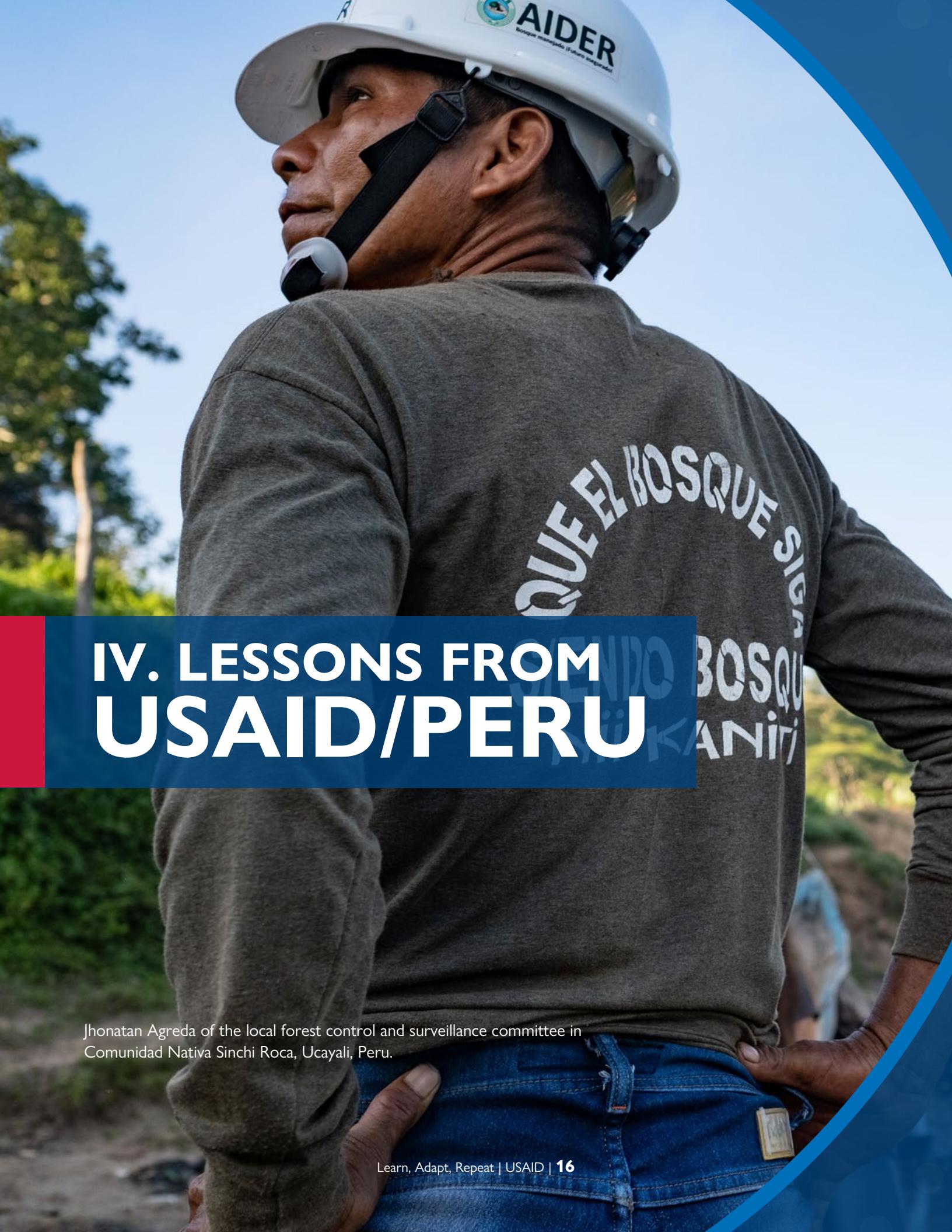
Looking Ahead

The practice of adaptive management is maturing at a different pace and scale across the three Missions' biodiversity portfolios. It has been in use through multiple program cycles in the Philippines, so much so the team has mastered key processes and tools and is now in the habit of regularly posing learning questions and identifying which information is required to support which decisions. In Madagascar, the team has integrated adaptive management into one full cycle of activities and into planning for the next. They have a strong model for aligning strategy and learning from project to activity and from one generation of activities to the next. In USAID's South America regional programs, adaptive management is practiced by all regional and most bilateral activity teams,

but the level of investment (e.g., in gathering evidence and addressing learning questions) and the willingness to adjust programmatic decisions varies widely from one country and one activity to the next. Looking ahead, adoption and refinement of adaptive management practices is likely to continue evolving at a different pace across Missions and will depend on the role of champions and the rate of internal culture change.

There is still some variation in the definition and understanding of adaptive management at the field and Agency policy levels. Interviewees placed considerable emphasis on their use of situation models and results chains at the program design phase to improve internal strategic logic and stakeholder alignment. Some have embraced learning questions and increased their use of evidence to guide decision making during program implementation. A few noted having adopted new processes that allow for more flexibility in design, monitoring, and learning. But there is considerable room for growth in applying the principles of adaptive management throughout the program cycle. This includes putting more co-creation processes into practice; streamlining monitoring and reporting systems; and applying evidence to improve decision making at every program stage.

There are a growing number of champions for adaptive management in all roles at the three Missions and within implementing partner organizations. Helping them access additional resources to enhance program flexibility; document and share learning; and strengthen local capacity are key opportunities for USAID to improve biodiversity program effectiveness.



IV. LESSONS FROM USAID/PERU

Jhonatan Agreda of the local forest control and surveillance committee in Comunidad Nativa Sinchi Roca, Ucayali, Peru.

Managing Adaptively at the Regional Level to Protect the Amazon

The Initiative for the Conservation of the Andean Amazon (ICAA) is a four-part, 20-year program that began in 2006. An independent evaluation conducted in 2015 found that the program lacked a coherent vision and approach—with projects focused at the landscape rather than the regional level. It also revealed that strategies and activities were not based on a solid socio-economic analysis of threats to biodiversity. As a result, USAID/Peru developed a regional framework that would align the efforts of many operating units and partners in the Amazon basin. Together, they employed a number of adaptive management processes and tools that have since improved program cohesion in the region.

The new framework—the Amazon Regional Environment Program (AREP)—is the result of a systematic, evidence-based strategic planning process that included participants from multiple Missions and USAID/Washington offices. This working group:

- Gathered evidence on the key threats to and drivers of biodiversity loss and developed a graphic depiction of their problem analysis (a situation model) that they could update as needed to reflect changes in context throughout the life of the project
- Aligned around the appropriate strategic approaches that would ensure regional efforts complemented and added value to bilateral efforts, as well as focused

on threats to the Amazon that had not yet been significantly addressed by other donors

- Developed a theory of change as well as learning questions to inform further evidence gathering and to continually test programmatic assumptions

The Peru Mission then began using this common framework to guide its investments across the region, ensuring that all regional activities were tied to priority threats and addressed gaps or responded to critical needs that could not be addressed effectively through bilateral programming. Camila Germana with the Wildlife Conservation Society, an implementing partner in the region, noted the value of strengthening the program strategy at this stage, “During ICAA, MI developed retrospective results chains midway through the program, and in a workshop each organization could better understand how they were contributing to results. It was both emotional and practical to see how our activities fit into the greater whole. In conservation, you can feel that, even if you are doing things well, you are never doing enough. Even if you are working in one landscape, it is only one part because the Amazon is so large. The results chain helped us understand how exactly we were part of something bigger. I wish the consortium of partners had used this tool from the beginning. But, from my experience, it takes time for team members to understand the adaptive management processes and tools, but it is time well invested.”

In addition to efforts at the regional level to refine and adapt programming, significant progress was made at the activity level to apply adaptive management processes and

tools to improve programming. Interviewees from USAID/Peru and implementing partner organizations shared the following lessons and insights.

Learning Question 1.

What was your experience applying adaptive management practices and their influence on biodiversity conservation programming?

Developing logical frameworks helped ground actions in strategy.

Interviewees noted how the process of developing strategic frameworks like theories of change helped ensure that strategy drove action planning. Marioldy Sanchez with implementing partner AIDER in Peru said, “Using the theory of change, we have become more explicit about how the productive activities of communities, e.g., sustainable logging, agroforestry, handicrafts, are not only intended to improve the economic well-being of communities, which is important, but also to motivate communities to reinvest in the protection of the forest through patrolling and reporting incidents of invasions by people outside the community.”

These frameworks were also used to help teams revisit strategy during implementation and refine actions as needed. Monica Romo, Environment Officer for the Peru Mission and Contracting Officer’s Representative for AIRR, described how a wide range of partners from five countries collaborated on a journey map, describing their common vision, objectives, and strategic approaches. She

noted that this planning process became the way of doing business for the entire activity. “At every pause and reflect session, we would review all of these elements, and they became a bit more refined each time. For example, we moved from generally recognizing the importance of the Indigenous organizations’ capacity needs to defining in specific terms the types of leadership and advocacy skills we needed to support.”

Strategic planning should be tailored to different audiences and needs.

SCIOA designed a theory of change along with a set of learning questions they wanted to ground truth with local Indigenous partners. To ensure that partners from different countries, who spoke different languages, could all relate to the technical framework, the team developed a creative analogy between the theory of change and a trip down the river. Chief of Party for SCIOA Vanessa Coronado said, “Indigenous communities may have very different interpretations of words. But most communities have existed along rivers for

many years. They understand what the river means in terms of getting from one place to another and the concept of planning your trip. The analogy has helped in terms of describing the need to plan and the logical sequence of results needed—just like places one passes along the river—to get to your desired destination or goal.”

Teams are increasingly using evidence to strengthen program design.

Interviewees shared multiple examples of using evidence to help prioritize biodiversity focal areas and choose more effective strategies. For example, in developing its Environment Project Appraisal Document in 2015, the Peru Mission asked MI and USAID's GeoCenter to help with prioritizing target areas for biodiversity conservation and climate change mitigation. USAID Biodiversity Division's Mark Higgins said, “This was an innovative use of geospatial information to identify scope, biodiversity focal interests, and threats. I hope this example helps USAID staff understand what resources are available to Missions through the Biodiversity Division, the GeoCenter, and the Office of Land Tenure and Natural Resources to support these types of analyses for evidence-based decision making.”

Champion Simone Staiger-Rivas, Coordinator, Communications and MEL, SERVIR Amazonia

Keeping the team focused on the big picture

“Simone was an important champion because she had the mindset for adaptive management. Many team members primarily had their own specific work in mind. But Simone, as the MEL specialist, reminded folks of the common goals of the program, the theory of change to achieve the goals, and reminded people what they are trying to achieve as a whole. She would focus discussions on the challenges to achieving the overall results and how to overcome those challenges.”

— Katia Villanueva, USAID/Peru



Marlene Gonzalez makes native handicrafts from locally harvested seeds and other materials and clothing made with designs from traditional practices of dye-making and painting. Selling crafts provides extra income in the short-term, which motivates planting of native species that yield more materials while protecting the forest.

AIRR drew on USAID's growing evidence base to prioritize the most effective strategies. Romo said, "We had to think through our assumptions and then examine the evidence that we had for them. This process helped us identify what USAID should support and where we could be most impactful with our resources, given evidence showing that we are more effective in some strategies than others." She added: "I find this analytical approach, not only useful for designing biodiversity programs, but for any program, and I have been applying them more broadly."

USAID/Peru Project Management Specialist Katia Villanueva expressed her belief that USAID could spend even more time during activity design reviewing the evidence base so they learn from past experience to understand what works, what doesn't work, and who the stakeholders are in any given context. She said, "Some proposals may sound good, but it is important to assess the evidence or the claims being made. There generally isn't a lot of time given the pressures to procure the activities and allocate the funding. But more and more, we have examples where we are doing more background research to understand the context and the feasibility and potential impact of the proposed strategies before giving the award."

Interviewees also stressed how adaptive management practices helped them not only to incorporate existing information into decision making, but also to identify evidence gaps—areas of uncertainty or potential risk inherent in their programmatic assumptions. Some articulated evidence gaps in the form of learning questions, which should be addressed

as part of implementation—helping to focus monitoring and evaluation and improve the team's ability to adapt as answers become available. For example, SCIOA needed to generate new information about context to develop appropriate interventions. The team employed an Applied Political Economy Analysis, which is used to understand legal, policy, and economic frameworks at play, as well as implicit and unwritten norms, values, and interests that impact behavior. Based on this analysis, the team adopted an important tactic that involved working through local organizations that already had in-country experience partnering with Indigenous communities. Coronado said, "With this approach, local organizations would use the tools we were promoting to sustain and scale impact beyond the life of SCIOA. We have already seen this happening in Brazil, Suriname, and Guyana."

Learning Question 2.

What changes have you seen in your work as a result?

Heeding lessons about what was not working spurred adaptation around stakeholder engagement.

Villanueva cited a key example of adapting when expectations were not being met. The team originally made the assumption that if stakeholders signed a Memorandum of Understanding (MOU) with SERVIR Amazonia, they would contribute to developing new geospatial tools. She said, “We had 20 MOUs signed but found that only about 60 percent of the stakeholders were working with us. Stakeholders were excited to sign the MOU for political reasons, but priorities often change when there are leadership changes. We learned to start agreeing on the tools to be developed together and their intended use prior to signing an MOU.”

Responding to COVID-19 led to new insights and opportunities to adapt.

Coronado provided a COVID-19-related example of how learning led to adaptation. “When we talked to Indigenous organizations about their priorities related to the threat of COVID, they were naturally concerned about being exposed and the health risks. But they also expressed deeper existential concerns related to their longer-term health and safety. Elders described the importance of conserving plants for maintaining their traditional medicine practices. Introducing activities around conserving medicinal plants, such as saving seeds, ultimately helped engage both elders and youth in conservation.”

Champion Vanessa Coronado, SCIOA

Keeping the focus on sustainability

“As a new Chief of Party, coming into an activity already underway, Vanessa reviewed the information that the team had compiled for the upcoming annual pause and reflect workshop. Based on this, she decided not only to focus the discussion on if and why the expected results were on track, but also on what would be required for results to be sustained beyond the life of the activity.”

— Armando Valdez-Velasquez, MI2

Annual pause and reflect sessions have focused attention on sustaining and scaling impact.

SCIOA has held an annual pause and reflect session to review the original theory of change against information gathered to date on progress. Coronado said, “These sessions helped us ask ourselves tough questions about the sustainability of outcomes and address them by adapting as needed. The COVID-19 pandemic led the team to place greater emphasis on providing communication equipment and services to Indigenous organizations to ensure they could stay connected. When improved communications proved to increase capacity on multiple fronts, the team pivoted to figuring out how to ensure the continued provision of communication tools, such as internet service, once the project ended.”

Sandra Lazo, team member for the Forest Alliance, described how the team focused a pause and reflect session on how to respond to interest from donors in scaling the community-led conservation model more broadly. She said, “Key to our scaling approach is mentoring community leaders who will become our new technical advisors, not only within their communities, but also to other communities. We quickly discovered that communities were already talking with each other about the conservation practices, so we recognized that we could build on this. We identify individuals who are most interested in conservation activities and support them to become leaders within their communities in teaching others to apply the conservation practices.”

**Champion Alvaro Gaillour,
Agreement Officer’s
Representative, Forest
Alliance**

Proactively seeking opportunities to expand impact

“Alvaro doesn’t just review reports to assess our progress on expected targets and provide critical feedback. He also identifies opportunities for us to expand our impact. He goes out of his way to explain our program to others and advocate for innovative partnerships for us to scale our model to more communities. It is a great feeling to know that we are on the same team in trying to discover ways to achieve greater impact together.”

**— Marioldy Sanchez,
Chief of Party, Forest Alliance**

The Center for Amazonian Scientific Innovation (CINCIA) team also used a pause and reflect workshop to adjust its strategy to increase impact and sustainability. After three years of focus on scientific production and innovation, the team needed to shift to a strategic approach that advanced the use of scientific information in decision making. Significant changes to the local and national context also provided a new opportunity to increase the team's impact on reducing illegal gold mining in the region. MI2 Facilitator Marcia Brown said, "We facilitated a pause and reflect workshop on the preceding three years of implementation. During the workshop, we helped the team to assess stakeholder and information needs, refine the theory of change for scientific production and innovation, and identify key results for the next two years. As a result, the team refined how their scientific information could contribute to the development of policies and regulations related to illegal gold mining."

Chief of Party for Conflict Fisheries Camila Germaná described pausing and reflecting at the end of the activity to consider scaling the model. She said, "We initially identified over 115 [locations] in Peru with fisheries conflicts, but we only selected five as our pilot sites. Our main purpose was to develop lessons that might apply to addressing conflict in these other contexts as well. At the activity's final pause and reflect session, the team organized its lessons around the assumptions in the results chain and assessed them in a structured fashion. For me, it was mind blowing how it made so much sense to use this framework. When you know you might not be able to achieve desired results because of the many barriers, you have to embrace the power of learning."

Conclusion

In addition to providing a vision and framework to guide conservation investments and learning at the regional level, adaptive management processes are harnessed to improve program effectiveness at the activity level. Interviewees cited greater alignment on programmatic assumptions and increased use of learning to guide decision making. Some activities, such as the Forest Alliance and CINCIA, are advanced in their use of evidence and learning to improve program design and adaptation. Forest Alliance is also supporting new communities to lead conservation practices in an effort to scale impact. Other activities are just beginning to master use of adaptive management frameworks that improve strategy and learning.



Local Indigenous community leadership has been critical to scaling and sustaining impact of forest conservation efforts in Peru. Amao Perez Fernandez, seen above sorting cocoa twigs, participates in many conservation-focused efforts in his community, including teaching others how to graft mature cocoa clippings to young trees. However, he also offers insight into the challenges USAID and its partners will have to overcome in the future to succeed, “The defenders of the forest are the most vulnerable. ... The regional government has made commitments to register our territory in the public registry. If they don’t register, there will be more invasions and land trafficking. Having the land registered gives us motivation to monitor and report illegal invasions.”

A photograph of a man from behind, sitting in a traditional wooden boat. He is wearing a light-colored short-sleeved shirt and dark pants with green stripes. He is looking out over a body of water towards a range of hills or mountains under a clear sky. The image has a blue and white curved graphic element in the top right corner.

V. LESSONS FROM USAID/ PHILIPPINES

Marlon is a fisher and boat maker who also takes ecotourists on day trips to nearby Siete Pecados Marine Park, Philippines.

Improving Effectiveness and Scaling Impact across Multiple Generations of Programs

When MI began its work with USAID/Philippines in 2012, the Ecosystems Approach to Fisheries Management was already firmly established in the region. The Mission had a strong understanding of the threats and drivers behind the decline in fisheries and marine resources, and the USAID-supported FISH program (2003–2010) had successfully integrated improved fisheries management into local government services and increased fish biomass 10 to 13 percent. However, given continued threats to both marine biodiversity and fishers' livelihoods, the Mission wanted to expand the impact and scale of its work.

In the decade since, the Philippines Mission and its implementing partners have applied adaptive management to improve the effectiveness of two follow-on activities—Ecosystems Improved for Sustainable Fisheries (ECOFISH, 2012–2017) and the subsequent Fish Right activity (2018–2023). It convened startup workshops to align multiple stakeholders around shared assumptions and strategic approaches; supported identification of learning questions to guide the gathering of evidence needed to inform decision making; and led regular pause and reflect workshops in which stakeholders revisited assumptions, reviewed new information, and adapted programs as needed.

Developing a theory of change helped ECOFISH fill in some key gaps in the team's assumptions about what was needed to improve fisheries management. Data from the FISH program showed that commercial fishers, including those illegally fishing in

municipal waters, were reaping more benefits from the increased harvest at the expense of smaller scale local fishermen—40 percent of which live below the poverty line. So the team added improved livelihoods to its key results and selected strategic approaches geared toward diversifying incomes and empowering local champions to participate in the decision making around fisheries management. It also developed a [tool](#) to assess socio-economic benefits to communities beyond increasing fish biomass.

“The FISH project was more focused on ecological outcomes. But we realized that ecological outcomes alone are insufficient. When we understood that the benefits of increased fish biomass were not equitable, we felt we had failed in some respects because the fishers that matter most, community-level fishers that are most dependent on the resource, did not benefit.”

— **Nygiel Armada, University of Rhode Island, Chief of Party, ECOFISH/Fish Right**

When the team launched the Fish Right activity in 2018, it made additional adaptations based on evidence gathered from the two previous generations of activities. To respond to back-sliding in progress detected in some communities, the theory of change included an increased focus on sustainability, including building the capacity of local organizations to continue supporting sustainable fisheries management beyond the USAID activity.

The team also factored in data showing the importance of ensuring that women and youth benefited from conservation and management of coastal resources. It adopted a range of strategic approaches designed to engage women-led organizations and empower women champions to participate in decision making around fisheries management. It also adapted the activity's conservation targets to include protecting seagrass and mangrove areas, which are important resources for women and other key stakeholders in integrated conservation and development.

By learning and adapting over three generations, these programs scaled impact to include not only participation from local government units in key biodiversity areas, but also public and private sector partners at the national level. They have filled a key evidence gap by creating a [national index](#) of illegal, unreported, and unregulated fishing and integrated [strategies to address the increasing threat of climate change](#). And they have adjusted strategies to include diversifying incomes and empowering local champions to participate in the decision making around fisheries management.

Interviewees from USAID/Philippines and local implementing partner organizations shared some key insights about applying specific adaptive management practices across the environment portfolio. In addition to the marine conservation activities described above, this portfolio also includes two terrestrial activities: Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER, 2012–2017) and Protect Wildlife (2016–2021), which addressed the country's illegal wildlife trade.

“During ECOFISH, we were simply disaggregating our data by gender for reporting purposes because it was a requirement of USAID. But during Fish Right, we conducted an assessment to better understand the bridges and barriers for gender inclusion ... now Fish Right is working to assure that there are real outcomes for women’s participation in decisions about fisheries management.”

— Ian Joey Tajonera, USAID/Philippines



Jose ('Jojo') Mazo is the park manager for Siete Pecados Marine Park in the Philippines. The mangroves near the park are the site of a restoration project managed by the Shalom Women's Biodiversity Conservation Association, led by his wife, Imelda. Jojo is a tireless advocate for both the people and nature in his community and has been involved in many environmental projects over the years.

Learning Question 1.

What was your experience applying adaptive management practices and their influence on biodiversity conservation programming?

Moving beyond traditional logic frameworks helped illuminate and challenge assumptions.

The Environment Office team has applied an approach across multiple activities to developing theories of change that makes assumptions explicit and fosters an environment for assumptions to be challenged, discussed, and refined over time. MI/MI2 Facilitator Arlyne Johnson said, “In the first meeting with the Mission to discuss our potential support, the Environment Office, Program Office staff, and the Chiefs of Party for both activities were enthusiastic to engage with MI because they were eager to try a different approach than the traditional logical framework.” A situation model and results chains for the strategic approaches currently employed for each activity were retroactively developed. Mission staff and implementing partners expressed that these tools were especially helpful for discussing and describing assumptions for new strategic approaches that had not yet been implemented before.

Former Livelihood Specialist for ECOFISH Rina Maria Rosales said, “When the ECOFISH team was first introduced to the adaptive management practices being promoted by USAID, we had lively debates about usefulness. For example, we wondered how a results chain to describe the theory

of change was different from a simpler logical framework table of inputs, outputs, outcomes, and impacts, which we were more accustomed to using. As we used the processes and tools, we grew to understand that [they] helped the team to be less linear in our thinking and more explicit about defining our programmatic assumptions. We found the results chains to be more consistent with reality and the complexity of biodiversity conservation and the interplay of social and biological factors. Supporting livelihood activities was a new strategic approach for ECOFISH, and the tools helped us think critically about our assumptions regarding how improved livelihoods would support conservation outcomes that are more equitable for small-scale fishers.”

Strategy should drive action and not the other way around.

Interviewees noted that adaptive management practices have improved stakeholders’ understanding of the relationship between strategy and actions. USAID/Philippines Environment Officer Randy John Vinluan said, “I’ve seen many projects that are activity-based. And because an activity is under a specific result in a logical framework, it is assumed that the activity will achieve that high-level result. Using results chains, the team needed to be more deliberate about why they

are undertaking a particular action in relation to advancing a set of intermediate results toward the conservation goals.”

Former Enforcement Lead and Deputy Chief of Party for ECOFISH Marlito Guidote said, “Government partners are typically focused on getting support for implementing activities. Using the situation model and results chains with them helped us identify the specific actions that would support results that we could agree on. From a project management perspective, every time a new action was proposed, we thought about to what extent the action would help us achieve our intended results along the theory of change. If we believed that it would contribute, we would allocate resources to that action.”

Adaptive management can minimize risk and uncertainty.

Several interviewees noted the uncertainty always associated with conservation and development, but that an adaptive management approach helps to minimize risk.

Becky Guieb said, “Working in development involves a certain amount of risk and uncertainty because program teams can’t control the outcomes. But teams can minimize the risk by being more deliberate about analyzing what they know, understanding what they don’t yet know, gathering information, and making calibrated decisions about what strategies are more likely to lead you to higher-level outcomes. Teams decide to implement, learn from, and adapt a combination of risky and less risky actions to move toward their goal. The adaptive management practices we used helped us use a logical process to understand risk and how we might reduce it.”

Champion James Kho, Specialist, ECOFISH and Fish Right

Helping stakeholders challenge assumptions

“James has championed adaptive management by asking about the story behind the assumptions in the theory of change and consistently challenging them—as a lawyer, he ‘cross-examines’ each assumption. He also helps the team members and their partners embrace the theory of change by encouraging more discussion, without making the process intimidating for people not accustomed to thinking this way.”

**— Becky Guieb,
USAID/Philippines**

It is important to tailor strategic frameworks to varied audiences.

Some staff noted variations in the extent to which adaptive management tools were helpful for any given audience. Randy John Vinluan said, “Theory of change fatigue is real. We learned that perhaps the team doesn’t need a results chain for every strategy at every site. It has been a process of trial and

error to discover under what situations the tool is helpful for engaging our stakeholders in decision making. We also learned that the level of detail in a results chain also depends on the audience. Some audiences, like the implementing team, are interested in spelling out the details, while others, like government officials, may be only interested in the highest-level information.”

Learning Question 2.

What changes have you seen in your work as a result?

Teams are gathering data to address learning questions and adapting accordingly.

The Protect Wildlife team developed and addressed learning questions, which were valuable in informing how to adapt their program. For example, new information generated helped the team provide more effective technical assistance to its government partners. MEL Specialist Christine Ruba said, “The Protect Wildlife team developed a series of learning questions for areas of uncertainty in our program assumptions. I was responsible for analyzing the data for addressing these questions. But we realized that our monitoring data for performance indicators would not be sufficient, so we decided to gather additional information using key informant interviews and focus group discussions with our beneficiaries. We asked them about how the technical assistance we were providing would result in improved management, for example, monitoring and reporting non-

compliant activities. Based on this information we adapted how we were providing technical assistance, for example, training materials.”

Regular performance evaluations can be used as an opportunity to assess new information and revisit assumptions.

In 2015, the Mission and implementing partners revisited the ECOFISH and B+WISER theories of change and used result chains to refine and prioritize evaluation questions in preparation for a mid-term performance evaluation. MEL Specialist Ian Joey Tajonera said, “Just the process of articulating the evaluation questions made the team really think about how they assumed the project would work and the associated uncertainty in that assumption. If you have the answer to know whether or not or how A will lead to B, you will be that much stronger in your implementation.”

Mission staff expressed that the process resulted in a scope of work for each evaluation that helped the team secure the

answers they needed at the activity midpoint to directly inform adaptive management throughout and beyond the life of each activity. Randy John Vinluan said, “I believe that these were the first evaluations commissioned by the Mission to use the activity-level results chain to test assumptions defined in an activity theory of change and to begin to assess the effectiveness of strategic approaches to conserve marine and terrestrial ecosystems. The experience showed both the promise of the approach—for informing adaptive management in a transparent and predictable way—and the challenges, in that the implementing partner and Mission needed to give further consideration to how they are collecting, managing, and analyzing data to address evaluation and monitoring questions.”

Teams often lack the necessary time to gather information that would improve decision making.

Teams experienced tensions between USAID’s emphasis on reporting performance against standard indicators and collecting data that would be more informative for adaptive management. Ian Joey Tajornera said, “We spent a lot of time and resources collecting data for reporting on performance targets for standard indicators, which took away from the time and resources we had to address other information gaps that could have been more useful for making decisions on how to adapt our strategic approaches. Instead, many of our discussions about how to adapt were less data-driven than they could have been and instead more based on anecdotal experience of staff.”

**Champion Becky Guieb,
Environment Officer,
USAID/Philippines**

Creating a culture of learning

“The openness between Becky and the implementing partners allowed us to achieve more adaptability with programming—especially important given that our work is in contexts with lots of uncertainty. Where typically the effects of funder-implementer dynamics can inhibit the free flow of ideas, Becky was essential to creating a learning culture. She was great at promoting a sense of trust, empowerment, and engagement that contributed to the team’s ability to adaptively manage the program.”

— Nygiel Armada



Jocelyn Sabuito is President of the Women of Faith Association and the wife and daughter of fishers. She has worked for years as an enumerator, collecting data on the catches of local fishers, which provides her family with significant additional income and supports the monitoring of sustainable fishing. Sabuito is one of many women leaders in Coron, Philippines, whose commitment to conservation is critical to the sustainability of USAID's investment in the region.

Partners have provided support for improved data gathering.

Arlyne Johnson noted the challenges for the B+WISER team to collect and analyze information required to address their learning questions. She said, “When it came to the pause and reflect sessions, frequently the team did not have the monitoring data they needed to address their learning questions, particularly around law enforcement. Even though these were large programs, they didn’t seem to have the resources required. Perhaps this is because data collection beyond that for standard indicators wasn’t part of their original agreement with USAID. To solve this challenge, the B+WISER team influenced the national government to fund and adopt the ‘SMART’ platform, which consists of a set of software and analysis tools to help standardize and streamline data collection, analysis, and reporting, facilitating the process of getting information gathered from the field to decision makers. In this way data for improving law enforcement will be improved, not only for USAID-supported activities, but beyond.”

USAID support is critical when adapting to unforeseen circumstances is required.

Staff emphasized that adaptive management practices helped the team innovate in ways that would ensure the program achieved its purpose despite significant changes in context, such as the onset of the COVID-19 pandemic and associated economic shifts for communities. For example, because of quarantine restrictions, fishers and buyers could no longer meet at local markets, so the program created an online platform to re-establish connection. Buyers could get their fish directly from sellers or traders could

Champions Ian Joey Tajonera and Andre Uychiaoco, MEL Specialists, ECOFISH and Fish Right

Keeping the theory of change top of mind

“Some of the best champions for adaptive management are the team members responsible for MEL, like Ian and Andre are for ECOFISH and Fish Right. They are the ones assessing the indicator data and understanding progress on results. They always have the assumptions from the theory of change in mind, can explain the theory to others, and remind the team that this framework is how we understand if and how we are making progress on our goals and reporting to USAID.”

— **Becky Guieb**

serve as go-betweens. (See [Collaborating, Learning, and Adapting \(CLA\) case study on Fish Tiange](#)). Currently, Fish Right is helping to set protocols for the entire sustainable fish supply chain. (See [video](#) on supply chain improvements.)

On the importance of adaptability under uncertainty ECOFISH and Fish Right Chief of Party Nygiel Armada said, “It helps that USAID has been highly motivating and supportive, and the consortium of partners are empowered to take adaptive decisions when planned approaches are not proving to be as effective or as efficient as expected, especially in the new normal brought about by COVID-19.”

Conclusion

Through multiple generations of activities, adaptive management has become standard practice for the Environment Office team in the Philippines. It is using the theory of change to ensure that assumptions are explicit and that strategy drives action. It is gathering data to address learning questions and applying this information to improve program design and adaptation—both within and across activities. And it has modeled how learning questions can be incorporated into regular performance evaluations to improve critical thinking and decision making. Finally, interviewees demonstrated a keen understanding of the importance of adaptive management to reducing risk and navigating uncertainty, and they provide a strong case study for others to learn from in this regard.

Champion Nancy Ebuenga, Program Officer, USAID/ Philippines

*Promoting a participatory approach
to addressing uncertainty*

“It really helped that Nancy was open to adopting a theory of change approach to the evaluations. The approach required an intensive participatory effort to understand and define the specific areas of uncertainty for USAID and its implementing partners based on their assumptions in the theory of change. She saw value in this approach and continues to apply these practices in her work with other teams.”

— Arlyne Johnson, MI/MI2



Imelda Mazo (left) is the president and Norilyn Bacarac (right) is secretary of Shalom Women's Biodiversity Conservation Association in Coron, Philippines. The women of the association first learned skills such as project administration and financial management while working on mangrove restoration in partnership with Siete Pecados Marine Park. They have since used these skills to set up other successful enterprises, including Kadiwa de Coron farmers market, seen here on opening day.



VI. LESSONS FROM USAID/ MADAGASCAR

Villagers outside the Firaisankina Peanut Cooperative in Kirindy Village, Madagascar.

Learning and Adapting across Activities

USAID/Madagascar reopened in 2014, after a hiatus due to the country's 2009 coup and subsequent instability, and began conceptualizing its new biodiversity program, Conservation and Communities Project. Olaf Zerbock, Advisor for USAID's Biodiversity Division, recalled the project design as a new beginning for biodiversity programming in Madagascar. He said, "This request for support at the 'ground floor' was an opportunity for the project team to apply adaptive management practices from the start. The tools were especially helpful in thinking more deeply about critical assumptions—not only the typical general assumptions about the context to achieve desired results, such as political or economic stability, but more specific assumptions regarding whether actions would lead to desired results."

A combined start-up workshop for the two CCP activities, Hay Tao and Mikajy, ensured alignment and promoted synergies between the strategic approaches and theories of change. Salohy Soloarivelo, USAID/Madagascar Environmental Officer, said of the interdependencies between the two activities, "Hay Tao's strategies support the enabling environment for Mikajy's work with communities. For example, Hay Tao was developing guidelines for land use planning, and Mikajy needed to use those guidelines to support the government and communities in developing their plans." Soloarivelo added, "We then worked out a coordination mechanism between the activities, which we revisited and improved throughout the life of activities."

Adapting strategies to improve synergies

During implementation, the activity teams conducted not only their own pause and reflect workshops, but also joint reflection sessions to ensure coordination of strategies to achieve broader CCP goals. Reviewing the assumptions in their theory of change led to a number of adaptations. For example, the team recognized the need to more explicitly link their two strategic approaches. Abel Rakotonirainy, a Livelihood Specialist supporting Mikajy, said, "We decided that those community members who were benefiting from livelihood activities should also be required to be on the committees that patrolled the forest for illegal slash and burn agriculture. In that way, livelihood benefits would more likely motivate the desired conservation behaviors."

Using learning to inform design of the next generation of activities

The team made significant use of learning when designing the next generation of CCP activities. When starting the design process, they first identified key information gaps that could be filled by applying targeted evaluation questions to existing activities. These evaluation findings then directly informed strategic planning for the next round of activities.

A key lesson was the importance of broad stakeholder involvement to ensure the breadth of knowledge needed to design, implement, and adapt complex programs. Tiana Razafimahatratra said, “When we designed CCP in 2014, we didn’t draw as extensively as we could have on the knowledge of other stakeholders. Now, after almost a decade of experience with multiple activities, we are going full cycle on our learning loop and incorporating what evidence we have for what works and what doesn’t in the design of new activities. We decided to facilitate a co-design process with our successful applicants, and incorporate

much broader stakeholder input into the design process. Reflecting on this experience and wider input has resulted in a very different way to organize the activities under our project, a way that I think will be much more effective.”

The Mission also initiated three Health, Ecosystems, and Agriculture for Resilient, Thriving Societies (HEARTH) Global Development Alliances, ensuring strategic fit within CCP’s program-level theory of change. Following are lessons learned from applying specific adaptive management practices to CCP and HEARTH.

Learning Question 1.

What was your experience applying adaptive management practices and their influence on biodiversity conservation programming?

Distinguishing between outputs, outcomes, and ultimate impact is important for successful monitoring.

Agathe Sector, Environment Office Director for USAID/Madagascar and Contracting Officer’s Representative for Hay Tao, arrived in 2019 after the activity was already underway. She recognized the need to reorient the team around outputs, objectives, and goals, as well as indicators for each, to ensure they were monitoring what was needed. Sector said, “The results chains provided a framework for the team to distinguish between the goals, which are related to the impact on conservation of

natural resources, versus the objectives, which contribute to achievement of those goals, and outputs, which are produced by the team. For example, we needed to ensure we were intentional about exactly how the team’s outputs (e.g., drafting a policy on valuation of ecosystem services for government review) contribute to the achievement of an objective (e.g., the government adopting the policy) and ultimately to more impactful conservation. We needed to assure we weren’t only monitoring indicators for outputs but objectives and goals as well.”



Fegy, from Kirindy Village, Madagascar, harvests peanuts.

Techniques such as composting and equipment to plant without tilling allow groundnut farmers to increase yields with less inputs. These techniques allow them to farm the same land and avoid illegally encroaching on the forest for slash and burn agriculture. Improving the benefits of sustainable livelihoods to reduce deforestation is a key strategic approach for CCP activities.

Establishing a baseline is important for examining assumptions.

CCP is designed around the principle that community and environmental well-being are intrinsically linked. As such, the Mission decided a household survey would be an ideal tool to explore socio-environmental factors, measure progress along CCP's overarching theory of change, and inform adaptive management. The purpose of the survey was to set a baseline against which USAID could gauge the effect of its livelihood and governance activities on conservation behaviors, conservation outcomes, and social well-being. The survey gathered data from 1,100 households across two project geographies (Menabe and MaMaBay) and two strata (marine and terrestrial livelihood-based households). Analysis of the results established baselines for 22 key results, which informed discussions about progress during subsequent pause and reflect workshops.

Learning questions guided critical discussions, despite lack of resources for data collection.

Tovo Rasolofoharivelo described both the challenges and benefits of developing learning questions. "We identified learning questions that, if addressed, would have been useful in not only tracking results, but more deeply exploring critical programmatic assumptions. I thought this was a useful practice. However, because data collection for learning questions was not planned for during the contracting

phase, we didn't have the budget to collect data in addition to that needed for standard indicators. Instead we used the questions as a guide for facilitating our internal discussions."

Using adaptive management frameworks can be confusing at first, but they eventually helped USAID better align with partners.

USAID/Madagascar Program and Communications Specialist Elizabeth Toomey described how situation models and results chains were initially confusing for private sector partners during co-design of the three HEARTH activities. However, she said, "Once they got the concepts and understood how to collaborate on developing the models, I think it really helped them anchor their thoughts and made it easier to develop a solid proposal. They ultimately saw the value in using a common framework to make assumptions explicit, assess the available evidence, identify information needs, and decide what to monitor. It probably resonated with their business sense of making decisions based on the best available data, given that they are investing their own funds in these activities and wanted to ensure they would have the expected results."

Learning Question 2.

What changes have you seen in your work as a result?

Pause and reflect sessions provide an opportunity to assess alignment between strategies and adapt as needed.

Abel Rakotonirainy said, “The pause and reflect sessions provided an opportunity for the entire team to come together to discuss what was and was not working across the various strategies and the many communities that we were supporting. Especially at the beginning, team members tended to focus on getting their specific tasks off the ground. For example, we have team members dedicated to supporting sustainable livelihoods and others dedicated to community-based natural resources management. One important realization across these two strategies was that support for livelihood activities, such as participation in cooperatives for improved poultry or groundnut production, should be more explicitly linked with participation in community-based natural resources management.”

Learning is driving new strategic approaches.

Governance Coordinator with USAID and consultant on Mikajy Lucien Andriafanomezana identified the huge influx of migrants as a contributing factor to slash and burn agriculture in Madagascar. He noted that while there are no straightforward solutions, the activity is trying innovative ideas to see what might be effective. He said, “We expect that other villages know who in their communities are engaged in these illegal activities, but they won’t speak up publically to identify them in

fear of retaliation. So instead, we are talking privately with the village leaders with whom we have built a trusting relationship over the past years to ask them to talk with the migrants who are illegally burning and cultivating maize. The government has agreed that each migrant family that is willing to cooperate will be given title to a few hectares and provided training to sustainably grow groundnuts and produce chickens. The village leaders are in a better position to approach the migrants with this offer. It feels like progress just to have this agreement with the government to provide a land reserve for migrants to farm as an alternative to burning the forest.”

Mikajy Chief of Party Joanna Durbin stressed that the team will continue to take an evidence-based approach to understanding if new innovations are effective at reducing deforestation. She said, “We have to take it a step at a time, carefully monitor progress, but most of all remain adaptable in our community led approach to addressing this complex problem. Before we can see an impact, we need to understand if the migrants can be convinced by their own communities to farm in the land reserve instead of the forest. We think leaders, especially those in agricultural cooperatives, will convince them of the benefits of adopting more sustainable livelihood activities. But cooperation from the government is essential because the migrants have to also be convinced that the potential benefits from producing groundnuts and chickens on their few acres in the land reserve will outweigh the potential cost of arrest and penalties for illegal practices.”



Tsikapy, from Kirindy Village, Madagascar, saved income from growing and selling peanuts through a local cooperative to buy chickens that he raises commercially for additional income. Additional income provides motivation to patrol the forest and report violations. USAID and its partners learned over time to foster these types of incentives to improve community participation in conservation efforts.

Applying lessons led to restructuring the next generation of programs to improve effectiveness.

During the co-design process, the team evaluated lessons learned and decided to significantly restructure the next generation of CCP activities. Salohy Soloarivelo explained, “The activities will not be so codependent

(e.g., one supporting the enabling environment while the other implements on-the-ground strategies). Instead, each will focus on both the enabling environment and on-the-ground activities for key ecosystems. While this should require less coordination between them, we will still incorporate the coordination mechanisms that have proven effective.”

Adaptive Management Champions: Activity and Mission Staff Take the Reins

In 2020, ten staff from Mikajy, Hay Tao, and USAID/Madagascar participated in a training program to build capacity to facilitate pause and reflect sessions. Given the need for remote communications due to COVID-19 restrictions, implementing partners were particularly interested in transitioning workshop preparation and facilitation to local staff.

The first phase of the training focused on the theory behind adaptive management practices. The second phase focused on designing and preparing actual workshop sessions.

The newly trained coaches put their skills to use during virtual pause and reflect sessions in the second year of activity implementation. They supported preparation and co-facilitated the sessions with MI2 staff. The following year, the coaches were able to lead both preparation and facilitation themselves.

MI2 Trainer Ashleigh Baker described how the coaches showed impressive leadership in tailoring certain processes between sessions to best fit the specific needs of the team. She said, “Hay Tao coaches adapted their pause and reflect process to feature outcome harvesting, priming a highly outcome-oriented discussion during the workshop. Mikajy coaches fostered discussions about the sustainability of its actions beyond the five years of the activity for each of its strategic approaches. Mikajy also created a data collection plan as a result of identified data gaps found during workshop discussion—data that is critical to effective adaptive management and work planning.”



Filaorinx, aka
“Davondraky,” weighs
peanuts being unloaded at and
purchased by the Firaitsankina
Peanut Cooperative. Beraketa
Village, Madagascar.

Conclusion

In the past ten years, USAID/Madagascar’s Environment Office has significantly changed the way it does business—embracing a collaborative, cross-activity approach to program design, learning, and adaptation. It has modeled the use of joint pause and reflect sessions to improve effectiveness across activities. It has embraced innovation, trying different strategic approaches to tackle complex problems and using evidence to determine what is and is not working. And it has demonstrated the value of putting

adaptive management into the hands of local implementing partners to build capacity and improve facilitation.

By tying an evaluation of existing activities into the design of the next generation of biodiversity activities, the Mission is well-positioned to continue capturing and incorporating lessons into future program adaptations.

APPENDIX A. INTERVIEWEES

USAID/Peru

From USAID/Peru

- Alvaro Gaillour, Senior Environmental Governance Specialist, Forest Alliance Agreement Officer's Representative
- Monica Romo, Environment Specialist. AIRR and SCIOA Contracting Officer's Representative
- Beatriz Torres, Environment Specialist, CINCIA and CINCIA-ACIERTA Contracting Officer's Representative
- Katia Villanueva, Project Management Specialist, SERVIR Contracting Officer's Representative

From Implementing Partner Organizations

- Vanessa Coronado, Pact, SCIOA Chief of Party
- Camila Germana, Wildlife Conservation Society, Conflict Fisheries Chief of Party
- Sandra Lazo, AIDER, Forest Alliance (provided communications support)
- Marioldy Sanchez, AIDER, Forest Alliance Chief of Party

From MI/MI2

- Marcia Brown, Foundations of Success, Forest Alliance and Sustainable Management of Forest Concessions Facilitator
- Armando Valdes, Foundations of Success, AIRR Facilitator

From USAID/Washington, D.C.

- Mark Higgens, USAID Biodiversity Division (provided support for Peru Environment Project Appraisal Document)

USAID/Philippines

From USAID/Philippines

- Becky Guieb, Environment Officer, ECOFISH and Fish Right Contracting Officer's Representative
- Ian Joey Tajonera, MEL Specialist
- Randy John Vinluan, Environment Officer

From Implementing Partner Organizations

- Nygiel Armada, University of Rhode Island, ECOFISH and Fish Right Chief of Party
- Joan Castro, PATH Foundation Philippines, Inc.
- Vivien Facunia, University of Rhode Island, Fish Right Site Coordinator
- Glen Forbes, RTI International, Sustainable Interventions for Biodiversity, Oceans, and Landscapes Law Enforcement Specialist
- Marlito Guidote, RTI International, Sustainable Interventions for Biodiversity, Oceans, and Landscapes Deputy Chief of Party
- William Jatulan, University of Rhode Island, Fish Right Deputy Chief of Party
- James Kho, Fish Right and B+WISER Policy and Institutional Development Advisor
- Gender Specialist Fredo Lazarte, PATH Foundation Philippines, Inc.
- Rina Maria Rosales, ECOFISH Livelihood Specialist
- MEL Specialist Christine Ruba, RTI International
- Mariazita Toribio, RTI International
- Andre Uychiaoco, University of Rhode Island, Fish Right Senior Fisheries Advisor

From MI/MI2

- Arlyne Johnson, Foundations of Success, B+WISER and Protect Wildlife Facilitator

From USAID/Washington D.C.

- Barbara Best, USAID/Biodiversity Division (retired)

USAID/Madagascar

From USAID/Madagascar

- Serge Ramanantsoa, CCP Climate Integration Lead
- Tiana Razafimahatratra (retired), Senior Environment Specialist
- Salohy Soloarivelo, Environment Officer, Mikajy Contracting Officer's Representative
- Agathe Sector, Sustainable Environment and Economic Development Office Director, Hay Tao Contracting Officer's Representative
- Elizabeth Toomey, Program and Communications Specialist, Mikajy, Hay Tao, and HEARTH

From Implementing Partner Organizations

- Lucien Andriafanomezana, Tetra Tech, Mikajy Conservation Specialist
- Mamisoa Andrianjafy, Tetra Tech, Mikajy Menabe Landscape Coordinator
- Joanna Durbin, Tetra Tech, Mikajy Chief of Party
- Abel Rakotonirainy, The National Cooperative Business Association CLUSA International, Mikajy Producers' Organizations and Value Chain Development Specialist
- Tovo Rasolofoharivelox, Tetra Tech, Mikajy MEL Officer

- Mino Rebalaha, Tetra Tech, Mikajy Livelihood Specialist

From MI/MI2

- Ashleigh Baker, Facilitator, Foundations of Success
- Vinaya Swaminathan, Facilitator, Foundations of Success

From USAID/Washington, D.C.

- Olaf Zerbock, Biodiversity Division, Conservation and Communities Project

APPENDIX B. ACTIVITIES SUPPORTED BY MI/MI2

Activity	Dates	Implementing Partners
	USAID/Peru	
<u>Strengthening the Capacity of Indigenous Organizations in the Amazon (SCIOA)</u>	2018–2023	Pact
<u>Amazon Indigenous Rights and Resources Activity (AIRR)</u>	2019–2024	World Wildlife Fund
Promotion of Best Social and Environmental Management Practices in the Amazon Region Activity	2018–2023	AECOM
<u>SERVIR Amazonia</u>	2019–2024	The International Center for Tropical Agriculture, National Aeronautics and Space Administration
<u>Fire Management and Response in the Amazon Region</u>	2020–2025	U.S. Forest Service
<u>Together for Conservation</u>	2021–2026	Wildlife Conservation Society
Artisanal and Small-scale Gold Mining Grand Challenge	2020–2022	Conservation X Labs
<u>Regional Cooperation to Address Environmental Crimes</u>	2021–2025	United Nations Office on Drugs and Crime
<u>Amazonia Connect/Amazonia Conectada</u>	2022–2027	Solidaridad Network (Lead), Earth Innovation Institute, The National Wildlife Federation, The Gibbs Land Use and Environment Lab at University of Wisconsin - Madison
<u>Partnership for Sustainably Managed Fisheries</u>	2021–2026	National Oceanic and Atmospheric Administration
<u>Por la Pesca</u>	2022–2027	Sociedad Peruana de Derecho Ambiental
USAID/Peru (Bilateral Activities)		
<u>Forest Alliance/Alianza Forestal</u>	2019–2024	AIDER

Activity	Dates	Implementing Partners
FOREST+	2022–2027	U.S. Forest Service
The Center for Amazonian Scientific Innovation (CINCIA) and CINCIA-ACIERTA	2021–2026	Wake Forest University
Amazon Business Alliance	2020–2025	Conservation International
Combating Environmental Crimes (PREVENT)	2019–2024	DAI Global LLC
Securing a Sustainable, Profitable, and Inclusive Forest Sector in Peru (ProBosques)	2018–2023	Tetra Tech
Mitigation of Fisheries Conflicts in Loreto, Peru	2019–2022	Wildlife Conservation Society
Sustainable Management of Forest Concessions	2021–2024	Green Gold Forestry
USAID/Philippines		
Ecosystems Improved For Sustainable Fisheries (ECOFISH)	2012–2017	Tetra Tech
Biodiversity and Watersheds Improved for Stronger Economy and Ecosystem Resilience (B+WISER)	2012–2017	Chemonics
Protect Wildlife	2016–2021	DAI
Fish Right	2018–2023	University of Rhode Island, Coastal Resource Center
USAID/Madagascar		
CCP	2015–present	
Mikajy	2018–2023	Tetra Tech ARD
Hay Tao	2018–2023	Pact



USAID

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