

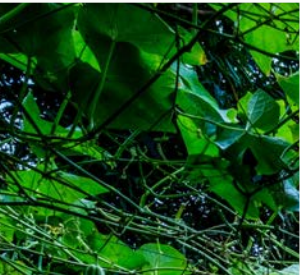


**USAID**  
FROM THE AMERICAN PEOPLE



# THE NATURE OF CONSERVATION ENTERPRISES:

A 20-year retrospective evaluation of the theory of change behind this widely used approach to biodiversity conservation



July 2018

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Front cover photos (clockwise from top left): Mountain gorilla, Bwindi Impenetrable National Park, Uganda (also page 64); Sorting xate palm, Maya Biosphere Reserve, Guatemala (also page 32); Sustainably harvested almaciga resin, Palawan, Philippines (also page 41); Sayote grown on extensive trellises, Nueva Vizcaya, Philippines, a relatively new cash crop provides income to farmers but presents a threat to forests (also page 39).

Back cover photo: Sunrise over Tikal National Park, Guatemala.

All photos: Jason Houston for USAID

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# TABLE OF CONTENTS

- I. EXECUTIVE SUMMARY..... 5
- II. PURPOSE ..... 9
- III. METHODS..... 11
- IV. OVERALL FINDINGS..... 13
- V. FINDINGS BY SITE ..... 26
  - 1. Petén, Guatemala ..... 26
  - 2. Nueva Vizcaya, Philippines ..... 34
  - 3. Palawan Island, Philippines..... 41
  - 4. Western Himalayas, Nepal..... 48
  - 5. Chitwan, Nepal..... 56
  - 6. Bwindi-Mgahinga Area, Uganda ..... 64
- VI. CONCLUSIONS..... 73
- VII. ANNEX ..... 76
- VIII. END NOTES ..... 79

## BOXES

- Box 1. What is a Conservation Enterprise Approach?..... 11
- Box 2. Sustaining Conservation Achievements..... 70
- Box 3. Additional USAID Resources on Conservation Enterprises ..... 75

## FIGURES

- Figure 1. Generalized Theory of Change for Conservation Enterprises ..... 6
- Figure 2. Generalized Theory of Change for Conservation Enterprises with Learning Questions ..... 11

## TABLES

- Table 1. Sites, community organizations, implementing partners, and enterprises ..... 10
- Table 2. Enabling conditions ..... 13

## ACRONYMS

<b>ACOFOP</b>	Association of Petén Forest Communities
<b>ANSAB</b>	Asian Network for Small Scale Agricultural Bio-resources
<b>BCN</b>	Biodiversity Conservation Network
<b>CONAP</b>	National Council for Protected Areas
<b>FPIC</b>	Free, Prior, and Informed Consent
<b>GCP</b>	Global Conservation Program
<b>IGCP</b>	International Gorilla Conservation Programme
<b>KEF</b>	Kalahan Educational Foundation
<b>NATRIPAL</b>	Nagkakaisang mga Tribu ng Palawan
<b>NGO</b>	Non-Governmental Organization
<b>NTNC</b>	National Trust for Nature Conservation
<b>SCAPES</b>	Sustainable Conservation Approaches in Priority Ecosystems
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>WWF</b>	World Wide Fund for Nature
<b>WWF-US</b>	World Wildlife Fund - United States
<b>USAID</b>	United States Agency for International Development

# I. EXECUTIVE SUMMARY

Over the last 20 years, the United States Agency for International Development (USAID) has supported conservation enterprises at multiple sites around the world, with the goal of creating economic incentives for stakeholders to reduce threats to biodiversity. However, despite prevalent use of this strategic approach, there are persistent gaps in practitioners' understanding of the conditions required to achieve and sustain biodiversity conservation.

A [2015 systematic review](#) examines research on a set of alternative livelihood projects, including conservation enterprises, but finds little reported evidence of conservation outcomes.<sup>1</sup> While there are reviews and guidance materials available on the conditions needed to establish conservation enterprises, many of which are synthesized in USAID's [Building a Conservation Enterprise: Keys for Success](#), there is less information on what it takes to sustain enterprises and conservation outcomes over the longer term.<sup>2</sup>

## What are conservation enterprises?

Conservation enterprises are businesses that generate economic and social benefits in ways that help meet conservation outcomes.

To support deeper, more systematic learning, USAID's [Conservation Enterprises Learning Group](#) developed a generalized theory of change, which outlines commonly held assumptions about the path from supporting enterprises to achieving biodiversity conservation.<sup>3</sup> It provides a framework for cross-site comparison and learning and was used to support this conservation enterprises retrospective.

Key findings from the theory of change include: (a) the role of implementing partners evolved and expanded over time, from helping to establish individual enterprises to building alliances and business partnerships between communities and the private sector; (b) it takes longer than the typical three- to five-year donor funding cycle to put in place the multiple enabling conditions that are needed for the sustainability of enterprises and conservation outcomes; (c) typically only a small percentage of community members receive direct cash benefits, however community organizations can distribute enterprise benefits in the form of community services; (d) different stakeholders are motivated by different benefits, and, therefore, incentivizing changes in attitudes and behavior towards conservation is not straightforward; and (e) in multiple sites, partners had verified improved biodiversity conservation results in part due to their conservation enterprises. Partners reported that more support in setting up monitoring and evaluation systems to measure impact would be helpful. Improved conservation of biodiversity improved livelihoods, which in turn motivated continued commitment to conservation in a virtuous cycle.

## Purpose

To examine the assumptions in the generalized theory of change, as well as probe deeper into the conditions required for long-term enterprise and conservation sustainability, USAID launched a retrospective evaluation (hereafter, "the Retrospective") of sites with longstanding enterprise approaches.<sup>\*</sup> It focused on six sites where the enterprise approach has remained active for approximately two decades through partnerships between local communities and one or more implementing organizations. USAID supported activities at all six sites at some point in time (See Table 1 on page 10). The enterprises involve timber and non-timber forest products, and eco-tourism services – all focused on achieving conservation outcomes.

<sup>\*</sup> This Retrospective evaluation was not a performance evaluation of the implementing partners' work at the six sites selected for review, but rather an opportunity to learn from and share their experiences over time. USAID greatly appreciates these partners' willingness and openness to share experiences and lessons learned.

By looking beyond the traditional funding and reporting period into the long-term outcomes of supporting conservation enterprises, USAID and its partners generated valuable new insights to help practitioners improve design and management of this strategic approach.

## Objectives

The three objectives of the Retrospective were to:

1. Examine the enterprise approaches at six sites using a generalized **conservation enterprises theory of change** and accompanying learning questions, developed by the USAID Biodiversity Cross-Mission Learning Program under the [Conservation Enterprises Learning Agenda](#), as a comparative framework.
2. Review **outcomes and lessons at each site** and synthesize findings across sites to provide lessons that can help practitioners design and improve conservation enterprises as a strategic approach for biodiversity conservation.
3. Assess whether and how implementing partners used **adaptive management** in response to lessons learned and dynamic conditions over two decades at each of their sites.

## Methods

Prior to this Retrospective, USAID reviewed the literature on a range of conservation enterprises to develop a generalized theory of change that maps how the enterprise approach leads to biodiversity conservation (See Figure 1). In this Retrospective, USAID used this theory of change as a common framework for examining the six sites and, in doing so, gained further insight into its underlying assumptions.

In short, the generalized theory of change for enterprises operates on the assumption that if the enabling conditions are in place, and stakeholders receive benefits from the enterprise, then stakeholder attitudes and behaviors toward conservation will change, which will reduce threats and ultimately conserve biodiversity.

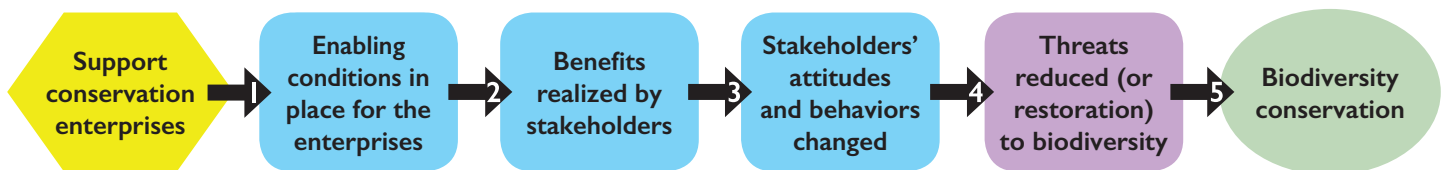


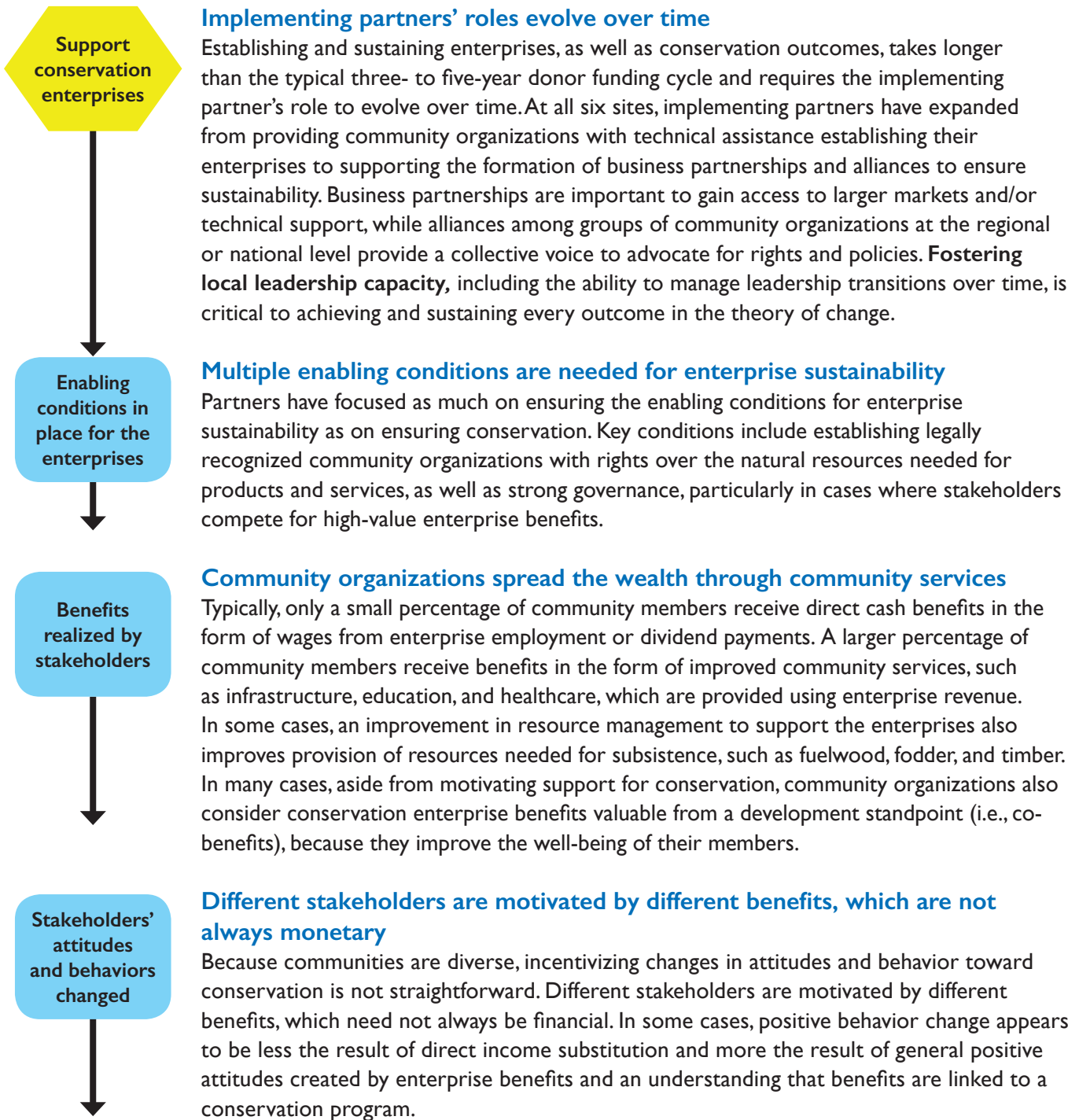
Figure 1. Generalized Theory of Change for Conservation Enterprises

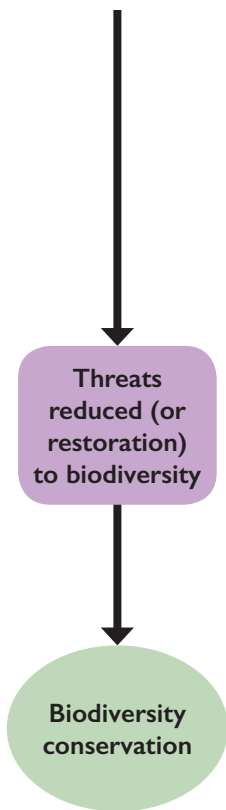
The Retrospective used this theory of change at each stage of the information-gathering process, which included: (1) a desk review, (2) expert interviews, and (3) visits to each of the sites for key informant interviews with implementing partners and enterprise stakeholders. At all sites, the original implementing partner is still supporting the conservation enterprise approach and was willing to participate in the Retrospective.

## Key Findings

### Implementing partners' assumptions align with the generalized theory of change

Across all six sites, implementing partners' assumptions about how the conservation enterprise approach leads to biodiversity conservation aligned with the Learning Group's generalized theory of change. By viewing the theory in action over two decades, the team gained deeper insight into the timeframe and enabling conditions required to achieve and sustain outcomes over the long term. Insights include:





Implementing partners have learned that it is important to think “backwards” along the theory of change – from the desired biodiversity conservation outcomes, to the type and level of threat reduction required, to the type and level of behavior change needed – in order to fully understand the type and level of enterprise benefits that need to be realized by different stakeholder groups to affect desired changes. In most cases, enterprise benefits both: (1) rely on participants conserving or sustainably harvesting the resources that serve as inputs to the enterprise and (2) are conditional, requiring participants to comply with explicit rules and regulations regarding resource use and conservation.

### Enterprise approaches are effective when implemented as part of a suite of conservation strategies

At all six sites, the enterprise approach is only one of several conservation strategies, including awareness-building, securing land tenure and resource rights, law enforcement, and sometimes formal education and human-wildlife conflict mitigation. Implementing partners noted that these different strategic approaches would not succeed alone, but instead all work together to reduce threats and achieve and sustain conservation outcomes.

### Fostering a virtuous cycle between livelihoods and biodiversity conservation is an important driver of sustainability

Implementing partners and enterprise stakeholders report that the status of biodiversity has improved over the past 20 years. For some sites, this is corroborated by other assessments. In many cases, improved conservation of natural resources improves livelihoods, which in turn motivates continued commitment to conservation in a virtuous cycle.

## Findings for Adaptive Management

In conducting this Retrospective, USAID looked for insights about the factors that contribute to the long-term sustainability of conservation enterprises. The analysis also focused on how the implementing partners learned and adapted to changing circumstances while staying focused on their long-term conservation outcomes. The implementing partners demonstrated many of the core elements of good adaptive management practice, an indication that active learning and adapting have informed their work over two decades. USAID found evidence of adaptive management being effectively applied in the following ways:

- Implementing partners foster a **culture of learning and adaptive management** among stakeholders, including government representatives, to help sustain the enterprises and their conservation outcomes.
- Implementing partners have **explicit assumptions** regarding how their enterprise approach will lead to conservation outcomes, but are willing to refine assumptions and approach based on lessons learned.
- Implementing partners examine assumptions and adapt by practicing **monitoring, evaluation, and learning**. However, some have limited capacity and funding to measure outcomes systematically.

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“The enterprise approach is key. If we simply ask communities to change their behaviors without providing value in return, we would not get results. They have to see there is some hope for better livelihoods linked to sustainable resource management.”

–*Bhishma Subedi, Executive Director, Asian Network for Small Scale Agricultural Bio-resources, western Himalayas, Nepal*

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## II. PURPOSE

Through dedicated biodiversity funding, USAID has widely supported conservation enterprises as an approach to biodiversity conservation. Previous activities supporting conservation enterprises span two decades and include global programs such as the Biodiversity Conservation Network (BCN), the Global Conservation Program (GCP), Translinks, and Sustainable Conservation Approaches in Priority Ecosystems (SCAPES). Increasing the effectiveness of biodiversity conservation programming using the enterprise approach is a USAID priority that has been supported by assessments of these and many other programs.<sup>4-13</sup>

### Supporting USAID's Cross-Mission Learning Agenda for Conservation Enterprises

To examine the effectiveness of commonly employed biodiversity conservation strategies, the USAID Office of Forestry and Biodiversity launched a Cross-Mission Learning Program in 2016, which includes a [Conservation Enterprises Learning Group](#). With support from the [Measuring Impact](#) activity, the Learning Group developed a **generalized theory of change** for how conservation enterprises lead to biodiversity conservation, as well as a set of questions to help further examine the theory's underlying assumptions. They used this framework to review and synthesize lessons from past USAID-supported projects<sup>14</sup> and better understand the enabling conditions for establishing enterprises and achieving conservation outcomes.<sup>2</sup> In addition, USAID co-supported a systematic review of alternative livelihood projects, most of which included conservation enterprise approaches.<sup>1</sup> These reviews found little evidence linking investments in alternative livelihoods with conservation outcomes and the conditions needed to sustain conservation outcomes over the long term.

This Retrospective builds on past work to fill information gaps and synthesize lessons learned from implementing partners using conservation enterprise approaches over the long term. It draws from a valuable source of data: six sites where USAID supported conservation enterprise approaches for a period of time and where these enterprise approaches remain active after nearly two decades. The experience of implementing partners and enterprise stakeholders at these six sites provides USAID and the conservation community rich lessons for designing, implementing, and sustaining effective enterprise approaches to biodiversity conservation.

### Objectives

USAID set out to meet the following objectives:

- Identify lessons across six sites using the **generalized conservation enterprises theory of change** developed by the USAID Biodiversity Cross-Mission Learning Program under the Conservation Enterprises Learning Agenda<sup>3</sup> as a comparative framework.
- Review **outcomes and lessons at each site** and synthesize findings **across sites** to provide lessons that can help practitioners design and improve conservation enterprises as a strategic approach for biodiversity conservation.
- Assess whether and how implementing partners used **adaptive management** to respond to dynamic conditions over two decades at each of their sites.

### Six Sites At-A-Glance

USAID included enterprises in four countries at six sites, ranging from high-end tourism operations to timber, craft-making, beekeeping, and paper-making enterprises. Table 1 on page 10 provides an overview of the six sites, the community organizations leading the enterprises, the implementing partners providing support, and the enterprises at each site.

Table 1. Sites, community organizations, implementing partners, and enterprises included in the Retrospective

Site	USAID Activity and Years of USAID Support		Community Organization(s)	Implementing Partner	Enterprises
Petén, Guatemala – communities in the Maya Biosphere Reserve	Several USAID activities over the past 20 years		12 community forest concessions	Rainforest Alliance (with various partners)	Forest Stewardship Council-certified timber; xate (palm fronds), chicle, ramón tree, and tourism
Nueva Vizcaya, Philippines – the ancestral domain of the Ikalahan indigenous community	Biodiversity Conservation Network (BCN)	1994-1998	Kalahan Educational Foundation (KEF)	KEF	Products from forest fruits
Palawan, Philippines – the ancestral domain of three indigenous communities	BCN	1994-1998	Indigenous peoples' associations in Cayasan, Campung Ulay, and Punta Baja	Nagkakaisang mga Tribu ng Palawan (NATRIPAL)	Rattan, almaciga resin, and wild honey
Western Himalayas, Nepal – communities in five districts	BCN  Global Conservation Program (GCP)	1992-1998  1999-2009	Many Community Forest User Groups in Kalikot, Jumla, Dolpa, Mugu, and Bajhang	EnterpriseWorks/ VITA (now part of Relief International) and Asian Network for Small Scale Agricultural Bio-resources (ANSAB)	Essential oils, handmade paper, and charcoal
Chitwan, Nepal – buffer area of Royal Chitwan National Park	BCN	1994-1997	Baghmara and Kumrose Buffer Zone Community Forest User Groups	National Trust for Nature Conservation (NTNC)	Elephant, jeep, and canoe rides; walks; lodging; and crafts
Bwindi-Mgahinga Area, Uganda – communities around Bwindi Impenetrable National Park and Mgahinga Gorilla National Park	Conservation of AfroMontane Forest and Mountain Gorillas in a Landscape Context	2002-2005	Community Associations in Nkuringo, Ruburguri, Buhoma, Gitenderi	International Gorilla Conservation Programme (IGCP), which includes World Wide Fund for Nature (WWF) and Fauna and Flora International	High-end eco-lodge, lower-end “community camp,” beekeeping, mushroom cultivation, cultural trails, and crafts

### III. METHODS

#### Using a Common Theory of Change to Review and Compare Lessons Across Sites

USAID used the Conservation Enterprises Learning Group’s generalized theory of change and learning questions (See Figure 2) as a framework to review a set of activities at six sites.

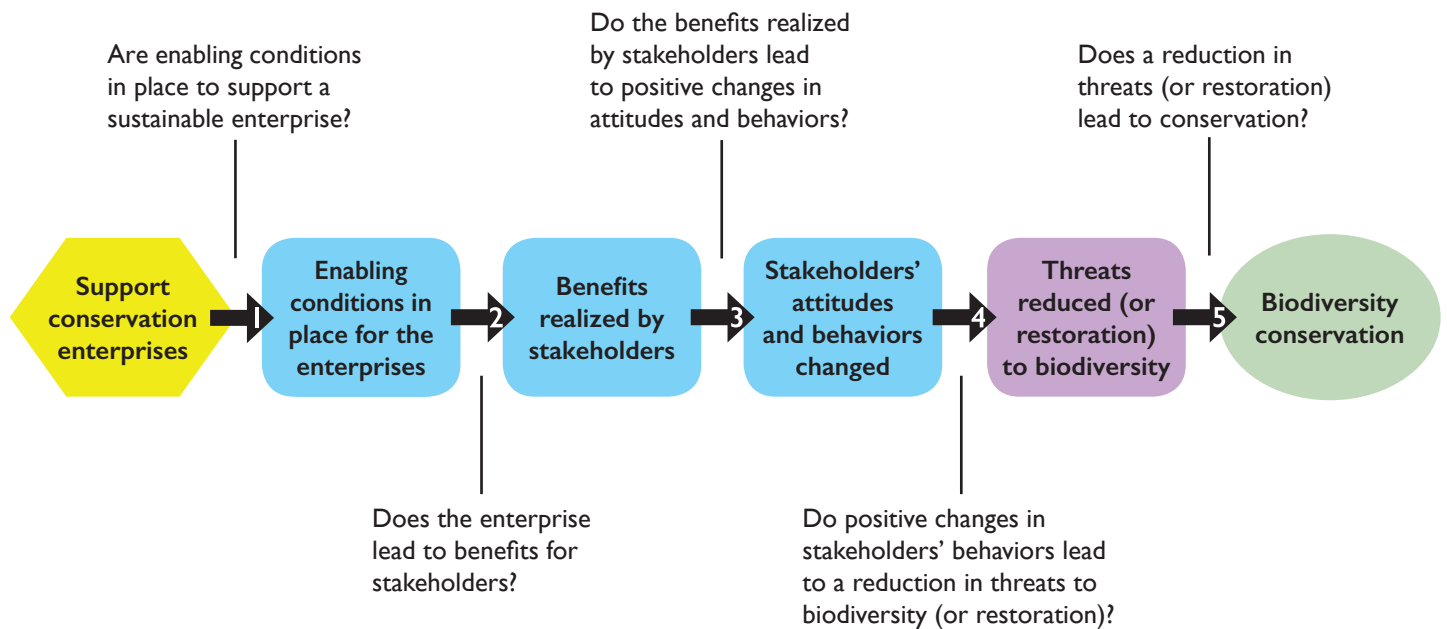


Figure 2. Generalized Theory of Change for Conservation Enterprises with Learning Questions

This theory of change outlines the expected intermediate outcomes (blue boxes) on the path to threat reduction (purple box) and, ultimately, biodiversity conservation (green oval). A set of learning questions provides a foundation for exploring key assumptions along the way and informing learning across sites.

#### Box 1. What is a Conservation Enterprise Approach?

In general, conservation enterprises are intended to incentivize biodiversity conservation by providing benefits (mainly income, but other non-cash benefits as well) to stakeholders who engage in a business for the production and sale of related goods and services. Enterprises range from ecotourism services and beekeeping to handicrafts or timber and non-timber forest products.

Supporting conservation enterprises is one strategic approach that is often nested within a broader suite of interventions aimed at improving biodiversity conservation. Enterprises are intended to: (1) reduce the prevalence of behaviors that induce threats to biodiversity and/or (2) increase the prevalence of behaviors that restore or maintain biodiversity by providing at least equivalent livelihood benefits through enterprise participation.

The USAID Office of Forestry and Biodiversity and Measuring Impact worked with regional experts (hereafter, the “team”) to conduct this Retrospective using the following methods (See Annex for more detail):

- 1. Develop a learning framework.** The team reviewed lessons from past USAID-funded conservation enterprises<sup>14</sup> and developed a generalized theory of change and related learning questions to use as a comparative framework across sites and contexts (See Figure 2 on page 11).<sup>3</sup>
- 2. Review the evidence base in literature.** The team reviewed the studies included in the Roe et al. systematic review,<sup>1</sup> along with other assessments. The team then applied the generalized theory of change to this broader sample of conservation enterprise approaches to understand the evidence for the theory’s outcomes and assumptions.<sup>15</sup>
- 3. Review literature on enabling conditions.** The team reviewed findings from published literature on the enabling conditions for conservation enterprises in order to enhance understanding of their role in driving each outcome in the theory of change.<sup>2</sup>
- 4. Conduct a desk review.** The team used the generalized theory of change as a framework for conducting a desk review of site-specific documentation, such as project reports and publications, for each of the six sites selected for the Retrospective.
- 5. Conduct site visits.** The team visited each site to conduct individual and group interviews with a sample of implementing partner and enterprise representatives.
- 6. Document and share findings.** Using the theory of change and learning questions as an organizing framework, the team documented findings from each site, as well as across sites. The team produced this report and a photo story to share with USAID’s Conservation Enterprises Cross-Mission Learning Group, as well as practitioners, donors, and implementing partners worldwide.

This Retrospective includes USAID’s findings from the six sites at both the individual and cross-site levels. It outlines the conditions that support achievement of long-term conservation outcomes. It also describes adaptive management based on lessons learned by implementing partners over two decades.

The selection of six sites was based on conservation enterprise approaches that have endured for approximately two decades and that received USAID funding and ongoing support from implementing partners. This review does not include a comparison of sites where enterprises did not last or where implementing partners did not provide continuous support for a conservation enterprise approach.

Information on outcomes and lessons is based on interviews with implementing partners and enterprise stakeholders. Implementing partner or third-party assessments, evaluations, and research helped to corroborate many interview findings. The cross-site comparison and insight into conservation enterprise approaches that have lasted nearly two decades make the lessons in this report useful for practitioners committed to learning and adaptive management.

# IV. OVERALL FINDINGS

Through this Retrospective, USAID found that, across all six sites, implementing partners’ assumptions about how the conservation enterprise approach leads to biodiversity conservation are in alignment with the generalized theory of change. This resulted in deeper insights into each of the Conservation Enterprises Learning Group’s five questions regarding these assumptions (See Figure 2 on page 11).

Following is a summary of findings related to the theory of change and learning questions across all six sites.

## Strategic Approach: Support Conservation Enterprises

At each site, in an effort to conserve biodiversity, implementing partners have supported one or more conservation enterprises. All enterprises are owned by legally recognized community organizations, often incorporated as private sector companies under local laws. In helping these organizations establish enterprises and create conditions for sustainability, implementing partners learned several lessons:

- All of the enabling conditions listed in Table 2 were necessary to launch and sustain an enterprise at all of the sites, regardless of context. But context does dictate which conditions require more external support from various partners. For example, community organizations managing high-value benefits may need greater support with governance to mitigate conflict over benefits distribution.
- Establishing the enabling conditions takes longer support than the typical three- to five-year donor funding period and requires longer-term support to build local capacity and government support.
- The local partner’s role evolves over time, from technical assistance for enterprise establishment to facilitating business partnerships and alliances and putting supportive policies in place to ensure sustainability. Fostering local leadership, including the community organizations’ ability to manage leadership transitions, is also important for sustainability.

Table 2. Enabling conditions

<b>Conditions for enterprise sustainability</b>	<ul style="list-style-type: none"> <li>• Stakeholder alignment</li> <li>• Livelihood diversification</li> <li>• Market demand</li> <li>• Profit potential</li> <li>• Access to financing</li> <li>• Community ownership</li> <li>• Internal governance</li> <li>• Compliance with government requirements</li> <li>• Supportive policies</li> <li>• Business alliances and partnerships</li> <li>• Technical capacity</li> <li>• Marketing and financial management capacity</li> <li>• Sustainable source of inputs</li> <li>• Equipment and infrastructure</li> </ul>	<b>Conditions for conservation sustainability</b>	<ul style="list-style-type: none"> <li>• Cash and non-cash benefits</li> <li>• Benefit sharing</li> <li>• Linkage between benefits and behavior change</li> <li>• Resource use rights</li> <li>• Complementary strategic approaches</li> <li>• Targeted participation or benefits</li> <li>• Scale of the enterprise approach</li> </ul>
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## Learning Question 1. Are the enabling conditions in place to support a sustainable enterprise?

Through this Retrospective, USAID found the following conditions to be particularly important for enterprise establishment and sustainability:

### Stakeholder alignment

Implementing partners assess the needs of different stakeholder groups and support community organizations to develop enterprises that meet these needs and are compatible with cultural traditions and social norms. For example, in Chitwan and Bwindi-Mgahinga, needs included mitigating human-wildlife conflict. Ann Koontz of Relief International, who participated in enterprise establishment in the western Himalayas, noted that many of the enterprises included in the Retrospective engage stakeholders with the closest connection to sustainably managing forest resources (including women and other marginalized groups) because they have the least opportunity to earn cash income from other sources. Improving these groups' activities, such as more sustainable collection of non-timber forest products, is closely linked to achieving sound resource management at the sites.<sup>16</sup>

### Livelihood diversification

Implementing partners encouraged diversification of livelihoods, which often includes community members taking knowledge gained from the enterprise and applying it to develop other sustainable livelihoods (Petén, Chitwan, Bwindi-Mgahinga). Ben Hodgdon, Forestry Director at the Rainforest Alliance, explained that enterprise diversification is important to managing stakeholder expectations and increasing support for conservation, because it offers the opportunity to provide direct cash benefits to more community members, as well as to different sectors of the community, such as women and other marginalized groups.<sup>17</sup>

### Market demand

Developing markets for new goods and services was initially beyond most community organizations' reach, so implementing partners have provided support. KEF staff in Nueva Vizcaya described needing to create completely new markets for fruit products.<sup>18</sup>

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"It is not desirable, of course, to encourage the total population to enter a single niche enterprise. That, in itself, might be damaging to the balance in the environment. The Kalahan Educational Foundation has learned from the study of ecology that diversity is usually the best policy."

—Pastor Delbert Rice, Founder, Kalahan Educational Foundation, Nueva Vizcaya, Philippines

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In Bwindi-Mgahinga, IGCP helped communities build on existing markets to support their ecotourism lodges,<sup>19</sup> and NTNC in Chitwan built on existing tourism markets for elephant rides, rhino tours, and other enterprise activities.<sup>20</sup> Koontz noted that technical assistance to communities in the western Himalayas focused on helping enterprises meet increased market demand without depleting resources.<sup>16</sup>

Both Koontz and Hodgdon noted that business partnerships have been especially important for developing and increasing market linkages (in the western Himalayas and Maya Biosphere Reserve respectively). They also emphasized that certification programs, such as the Forest Stewardship Council, serve to expand the consumer base into national and international markets with greater revenue possibility.<sup>16,17</sup>

### Profit potential

Most enterprises are profitable, but for some, profitability did not occur within the initial activity period. Implementing partners noted that maintaining enterprise participation during this initial period was challenging and that participants joined based on tolerance for risk and/or lack of better livelihood options (Petén, Nueva Vizcaya, western Himalayas).

Tom Oliano with KEF in Nueva Vizcaya explained that, due to lack of profits, KEF has subsidized the enterprise over two decades to incentivize participation.<sup>18</sup> Implementing partners in Bwindi-Mgahinga and the Maya Biosphere Reserve described how, as profit potential increased, strong internal governance systems became increasingly important for ensuring accountability and transparency in benefit distribution.

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“None of the enabling conditions work in isolation. They work as a package. They all need to stay in place over the long term.”

—Beda Mwebesa, former employee of International Gorilla Conservation Programme, Bwindi-Mgahinga

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### Access to financing

In most cases, the implementing partners provided capital to purchase equipment and develop infrastructure (Nueva Vizcaya, Chitwan, western Himalayas, Bwindi-Mgahinga). In the Maya Biosphere Reserve, community organizations now generate the necessary capital or have access to credit. Hodgdon viewed the ability of community organizations to make their own capital investments, as well as to access and manage credit for equipment or expansion, as important indications of maturity and sustainability.<sup>17</sup> Among the enterprises included in the Retrospective, those with high-value benefits, such as ecotourism in Bwindi-Mgahinga and Chitwan and timber in the Maya Biosphere Reserve, are generally able to make investments and grow. In one case, the financing arrangement is an impediment to desired outcomes. NATRIPAL Executive Director Dionesia Banua explained that the financing arrangement between community members and non-timber forest product traders in Palawan hinders improvements in stakeholder benefits and incentives for sustainable resource management.<sup>21</sup>

### Community ownership

All of the enterprises are operated by legally recognized community organizations, often incorporated under local private sector business laws, and have various management arrangements. In Nueva Vizcaya, the implementing partner is also the community organization that directly hires staff to manage the enterprise. However, in all other cases, the implementing partner operates at a national or international level and helps establish legally recognized community organizations to manage the enterprises and oversee a subgroup of hired staff. In Bwindi-Mgahinga, an outside concessionaire manages and operates the high-end lodge, with an agreement outlining how benefits should be disbursed to the community group that owns the lodge. Steven Asuma, a former IGCP staff member who helped develop the agreement, emphasized that finding an ownership and management structure that works well for stakeholders and keeps them incentivized to participate is an important factor in sustainability. Asuma also stressed that partnership agreements should be dynamic, with built-in mechanisms for review and revision.<sup>22</sup>



*In Petén, Guatemala, María Marimadías with Alimentos Nutri-naturales husks ramón, a seed from a native forest tree, which is ground into flour and sold to make cookies and other products.*

## Internal governance

All of the community organizations have a governance system in place, defined in organizational bylaws. Systems governing accountability, transparency, and benefits distribution are especially important for enterprise sustainability. Experiences in the Maya Biosphere Reserve, Chitwan, and Bwindi-Mgahinga indicate that, when it comes to resolving conflict around benefits distribution, continuous and long-term support from implementing partners, the government, or other third parties is often necessary, especially when there are high-value benefits involved. Hodgdon noted that a positive indication of strong governance and sustainability is the ability of community organizations and their enterprises to successfully transition to new leadership – especially after the loss of founding or long-term leaders.<sup>17</sup>



*In Chitwan, Nepal, representatives of neighborhoods in the Baghmara Community Forest User Group make proposals to the executive board about how to use annual revenues generated by the enterprise.*

changing policies create uncertainty for community organizations around enterprise sustainability. Banua described how, in Palawan, the organization has continued to play an important role in improving policies at the national level.<sup>21</sup> In the Maya Biosphere Reserve and in the western Himalayas, alliances of community organizations played a key role in advocating for improved policies.

## Business alliances and partnerships

The community organizations that own the enterprises are commonly supported by business alliances and partnerships at the local, national, and international levels. Implementing partners describe alliances and partnerships as vital factors for enterprise sustainability. Hodgdon<sup>17</sup> (Petén), Subedi<sup>23</sup> (western Himalayas), and Banua<sup>21</sup> (Palawan) stressed that alliances between community organizations are particularly important when it comes to advocating for the legitimacy of community-run enterprises and supportive government policies. Hodgdon noted that forming different alliances for different functions (for example, one to support advocacy and another to support business development) helps each alliance develop specialized capacity and avoid conflicts of interest.<sup>17</sup> Business partnerships are critical to product aggregation and sale, value addition, and creating market linkages (Petén, Bwindi-Mgahinga, western Himalayas).

## Compliance with government requirements

Some community organizations need ongoing support from implementing partners to comply with complex or changing government requirements (Petén, Palawan, and western Himalayas). For example, Bishma Subedi, Executive Director of ANSAB, described how supporting the establishment of a national alliance of enterprise groups has enhanced these groups' ability to advocate for improving and streamlining costly, time-consuming, and bureaucratic requirements.<sup>23</sup>

## Supportive policies

Policies and legal frameworks that support enterprise development and certification encourage enterprise establishment and growth. However, unclear or



## Technical capacity

Initially implementing partners focused on helping enterprise participants build the technical skills required to produce goods and services without depleting resources. Community organizations generally reported needing ongoing external support.

In some cases, notably Palawan, Chitwan, and the western Himalayas, this meant improving existing resource management skills to increase sustainability. In Nueva Vizcaya and the western Himalayas, it involved helping participants develop completely new skills in paper-making. In the Maya Biosphere Reserve, participants needed support mastering highly technical competencies and keeping up with state-of-the-art timber practices. Implementing partners describe the capacity of community organizations to train their own enterprise participants as a strong indication of sustainability. Hodgdon<sup>17</sup> (Petén) and Subedi<sup>23</sup> (western Himalayas) noted the importance of business partners and alliances in ongoing technical capacity building.

## Marketing and financial management capacity

Community organizations all needed to develop the marketing and financial management skills required to successfully run their enterprises. Staff at the Rainforest Alliance<sup>24</sup> and IGCP<sup>19</sup> described how the need for these skills became increasingly apparent as issues of financial accountability and transparency arose. In cases where enterprises provide high-value benefits, such as ecotourism lodges in Bwindi-Mgahinga and timber production in the Maya Biosphere Reserve, sound financial management capacity development support was a critical component of technical assistance.

## Sustainable source of inputs

Implementing partners help ensure that community organizations can access inputs to produce goods and services without depleting their resource base. At all sites this required establishing clear rights to these inputs. In Palawan, for example, NATRIPAL staff explained that difficulty obtaining resource use permits from the government has resulted in overharvesting of non-timber forest products such as rattan and almaciga resin.<sup>25</sup>

## Equipment and infrastructure

Implementing partners noted that investment in equipment and infrastructure is a strong contributor toward enterprise sustainability. At all sites, infrastructure influences the production and transportation of inputs and goods, as well as

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“Implementing partners have learned from their early experiences and have expanded the enterprise model across their sites. ANSAB and NATRIPAL, for example, have fostered a supportive network of community organizations that can reach higher-value markets for their enterprise products.”

—Ann Koontz, *Relief International*

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*Himalaya Bio-Trade, Limited, is a marketing and distribution firm that aggregates paper made by communities and dyes and cuts it for sale in national and international markets. They supply lokta bark paper for packaging to the global company Aveda.*



Rodolfo Rodrigo, president of Tinig ng mga Katutubo sa Kabayugan (TIKCA), Cabayugan, an indigenous peoples' organization in Sugodi, Barangay, Cabayugan, Palawan, Philippines, holds a map of the organization's Certificate of Ancestral Domain Claim.

provision of services such as ecotourism. For example, in the western Himalayas, ANSAB staff noted that the enterprises' remote locations and lack of roads inhibit the ability to get products to markets.<sup>23</sup> IGCP staff also described remote location and road conditions as important factors in the market for ecotourism services.<sup>19</sup>

Implementing partners help community organizations obtain the equipment necessary to develop, process, and/or distribute their enterprise goods and services. Enterprises with low revenues, such as fruit processing in Nueva Vizcaya and paper-making in the western Himalayas, are not able to invest in new or replacement equipment, which limits production, revenue, and level of participation.

In contrast, enterprises with higher

revenues, such as timber in the Maya Biosphere Reserve and ecotourism services in Bwindi-Mgahinga, are able to make investments in equipment and, as a result, expand production and participation.

## Learning Question 2: Does the enterprise lead to benefits for stakeholders?

The community organizations at each of the six sites provided the following enterprise cash and non-cash benefits to stakeholders through a variety of distribution arrangements:

### Cash and non-cash benefits

**Cash benefits.** For most sites, a subset of community members receives direct cash benefits in the form of:

- **Employment.** Community organizations provide enterprise employment and salaries to a portion of their members. The indigenous associations of Palawan are the exception, as they pay their members cash for non-timber forest products (see below). Organizations are still striving to expand employment to more members and even non-members.

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“The enterprise must generate income, but the additional benefits and the non-monetary benefits are what also make the enterprise approach powerful. We need to look beyond just income as the only enterprise benefit motivating conservation.”

—Ann Koontz, Relief International

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- **Cash for collection of inputs.** In some cases, members (and sometimes non-members) receive cash for collecting non-timber forest products used in enterprise production, which broadens the number of beneficiaries (Nueva Vizcaya, western Himalayas, Petén, Palawan). At some sites, it is mostly poorer women who are collectors, because they lack better options and input collection is compatible with their trips to the forest for subsistence activities (Nueva Vizcaya, western Himalayas).

- **Dividends.** At two sites, the community organizations distribute a portion of their profits as annual cash dividends to members. In the western Himalayas, dividends received by each member are minimal, while in the Maya Biosphere Reserve they can be substantial.

**Non-cash benefits.** At most sites, community members receive non-cash benefits in the form of improved community services supported by enterprise revenue. Community organizations commonly allocate a portion of their annual profits to invest in infrastructure, education, and health. In Bwindi-Mgahinga and Chitwan, non-cash benefits include measures to mitigate human-wildlife conflict. In situations where there are many community members, as in Bwindi-Mgahinga, the level of benefit to each household may be minimal. In Nueva Vizcaya, lack of enterprise profits has meant that profits cannot be allocated to community services. When community services are provided by other development programs at the sites, community members do not always attribute the benefits to the conservation enterprise.

### Learning Question 3: Do the enterprise benefits realized by stakeholders lead to positive changes in attitudes and behaviors?

Interviews with community members at each site indicate that enterprise benefits provide motivation and ability to positively change their attitudes and behaviors related to resource use and biodiversity conservation. Implementing partners focus on changing the threat-inducing behaviors of the beneficiaries themselves while, at the same time, incentivizing them to control threat-inducing behaviors by outsiders.

#### Benefit-sharing

Community organizations reported that they aim to share enterprise benefits equitably among members in accordance with bylaws. Benefit-sharing arrangements vary widely between sites and enterprises, but they have a critical influence on enterprise participation and positive changes in attitudes and behaviors toward conservation. The type, level, and timeframe of benefits received by different stakeholder groups (as defined by gender, ethnicity, and wealth) influences conservation outcomes at each site.

Various community organizations reported that improvements in human well-being are seen as equal in importance to conservation of biodiversity. In other words, generating benefits for community members is viewed as an important end unto itself, not just as a means to achieve conservation. This implies that, if some sectors of the community are not benefiting equitably from the enterprise, the organization may believe it has not fully achieved its ultimate purpose.



*In Nkuringo, Uganda, enterprise benefits have motivated conservation behavior and have also supported development. Some of the community's poorest women have received support selling baskets to tourists visiting the Bwindi Impenetrable National Park.*

In Nueva Vizcaya and the western Himalayas, the enterprises engage the community's most vulnerable members, mostly poorer women, who lack better livelihood options. In Bwindi-Mgahinga and Chitwan, the government uses law enforcement to reduce threats to protected areas, and enterprise benefits compensate for restrictions on resource use. At these same sites, marginalized groups that have not yet benefited equitably from the enterprise approach continue to compete for enterprise benefits.

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"Those who most need it don't always benefit the same from Community Forest User Groups. Decisions are generally made by the elite and influential, and they look after their own interests."

—*Ram Chandra Kandel, Chief Park Warden, Chitwan National Park*

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Interviews with stakeholders indicate that the type and distribution of benefits influence the attitude and behavior changes of different stakeholder groups in a number of ways:

- **Employment.** Enterprise employees described salaries as an important incentive for attitude and behavior change. However, as direct employment is generally not widespread, this benefit alone is likely insufficient to incentivize widespread change and may even generate conflict between employees and non-employees.
- **Cash for collection of inputs.** Collectors described income received for non-timber forest products as an important incentive for attitude and behavior change. At some sites, cash for collection benefits are overtly linked to sustainable management of non-timber forest products (western Himalayas, Petén) or are perceived to be linked (Nueva Vizcaya); both conditions motivate forest conservation.
- **Dividends.** The impact of dividends varies by site. While annual dividend payments are minimal for Community Forest User Groups in the western Himalayas, members reported that they still provide incentives to conserve the forest. In the Maya Biosphere Reserve, annual dividend payments can be substantial, and community organization members reported that they serve as a strong incentive for forest conservation.
- **Community services.** In general, community members reported that services such as infrastructure, schools, and health care also provide incentives for changing their attitudes and behaviors toward conservation. Some organizations target community services toward directly addressing threats to conservation. For example, in Chitwan, community organizations provide biogas cook stoves for those dependent on fuelwood. In Chitwan and Bwindi-Mgahinga, community organizations mitigate human-wildlife conflict in park buffer zones to reduce poaching or other retaliation.

However, households with less access to community services who benefit less may be less incentivized to change attitudes and behaviors. For example, surveys indicated that farmers who live near the Bwindi-Mgahinga national park boundaries in Uganda, who tend to be among the poorest community members, often bear the greatest cost of conservation in terms of human-wildlife conflict yet receive the fewest enterprise benefits. They may be less likely to change their attitudes and behaviors and may even become more resentful of the park.<sup>26</sup>

Implementing partners emphasized the importance of stakeholders having clear and realistic expectations regarding distribution and timing of enterprise benefits. They also noted that community organizations need to assess changes in social and cultural dynamics among stakeholders over time and adapt their approach as needed. For example, the Rainforest Alliance<sup>24</sup> and IGCP<sup>19</sup> noted that as enterprise benefits increased, other stakeholders became interested in capturing those benefits. Implementing partners encourage community organizations to periodically review the type, level, and distribution of benefits to ensure they are still equitable and effectively incentivizing the necessary changes in attitudes and behaviors within their target groups.

## Linkage between benefits and behavior change

Benefits generated from the enterprises at each site both: (1) depend on sustainable use of natural resources as inputs to the enterprise and (2) are contingent upon participants complying with explicit rules and regulations regarding resource use and conservation.

At all sites, implementing partners use more than one of the following additional mechanisms to influence positive behavior change among enterprise participants:

- **Compensation.** By providing enterprise support, conservation stakeholders, such as Non-Governmental Organizations (NGOs) and the government, compensate community members for economic loss. Compensation mechanisms explicitly acknowledge the social and individual costs of conservation, particularly access restrictions that negatively affect livelihoods. At all sites, community members are required to comply with additional government rules and regulations that limit livelihood activities or remove access to resources, in some cases due to the establishment of a protected area. Support for the enterprises is considered a means for at least partially compensating community members for these restrictions. At some sites, communities bordering the protected area are also compensated through a revenue-sharing program with the park (Bwindi-Mgahinga, Chitwan, Petén) or measures to mitigate human-wildlife conflict (Bwindi-Mgahinga, Chitwan).



*Like other enterprise participants, Charles Nshakumanza, chairman of the Nkuringo Bee Keepers Multi-Purpose Co-Operative Society, is a former poacher and gold miner who now makes his living by sustainably harvesting, processing, and selling honey in the area near Bwindi Impenetrable National Park, Uganda.*

- **Building trust and goodwill.** Enterprise support fosters a positive relationship between conservation stakeholders and community members and results in greater collaboration in conservation activities. Implementing partners viewed supporting enterprises as an opportunity to gain community trust and as a gesture of goodwill in return for positive behaviors. The enterprises are also a mechanism for building capacity around collective decision making and community mobilization, which is valuable for addressing various conservation challenges. For example, in Nueva Vizcaya and the western Himalayas, support for enterprises has built strong trust and goodwill among community members toward forest conservation. As a result, even though not all community members directly benefit from the enterprises, providing benefits to some (including the most vulnerable) generates goodwill among the others. Investments in measures to mitigate human-wildlife conflict in Bwindi-Mgahinga and Chitwan also help build goodwill.

- **Quid pro quo.** Under this mechanism, community organizations trade benefits for behaviors that sustain biodiversity conservation. At all sites, stakeholders are explicitly required to comply with government rules and regulations, mediated in advance, in order to maintain resource rights to enterprise inputs. At five sites, the enterprises are a result of the government giving the community organizations rights over forest resources (Petén, Chitwan, western Himalayas, Palawan, Nueva Vizcaya). In Bwindi-Mgahinga, the primary enterprise is a result of the government guaranteeing the community organizations an allocation of permits for tourists to view gorillas. In all cases, quid pro quo agreements are formalized in written documents. Koontz pointed out that in the western Himalayas, quid pro quo is complemented by government-required forest management plans and Forest Stewardship Council certification, which mandates use of block rotation, percentage harvesting, and other managed regeneration techniques proven to achieve sustainability.<sup>16</sup>
  - **Reinforcing linkages.** Supporting enterprises that directly and immediately depend on the surrounding environment, such as ecotourism, timber, and non-timber forest products, provides incentives for conservation behavior. Because these enterprises depend on sustainable resource management, participants are motivated to both practice sustainability and prevent exploitation by outsiders. For example, Koontz described that in the western Himalayas of Nepal and Palawan Island in the Philippines, enterprise benefits depend on sustainably harvesting non-timber forest products and protecting associated forest ecosystems to remain profitable.<sup>16</sup> Hodgdon pointed out that, in the Maya Biosphere Reserve in Guatemala, high-value benefits depend on the sustainable harvesting of timber and non-timber forest products.<sup>17</sup>
  - **Creating linkages.** Supporting enterprises that create linkages to biodiversity that did not exist before, such as community-run ecotourism in Bwindi-Mgahinga and native fruit processing in Nueva Vizcaya, helps strengthen the perception that improved livelihoods depend on maintaining biodiversity. While initially community members may only recognize the enterprise benefits, they grow to realize the connection between their own livelihood needs and conservation. For example, with gorilla tourism in Bwindi-Mgahinga and rhino tourism in Chitwan, implementing partners supported the creation of new community enterprises whose high-value benefits are directly linked to protection of wildlife and their habitat. In Nueva Vizcaya, stakeholders perceive that benefits from native fruit collecting and processing are linked to restoration and protection of the forest.
- “In Nepal and the Philippines, community members describe improved subsistence benefits in the form of water security, fuelwood, fodder, and home building materials as a result of improved management of their community forests.”

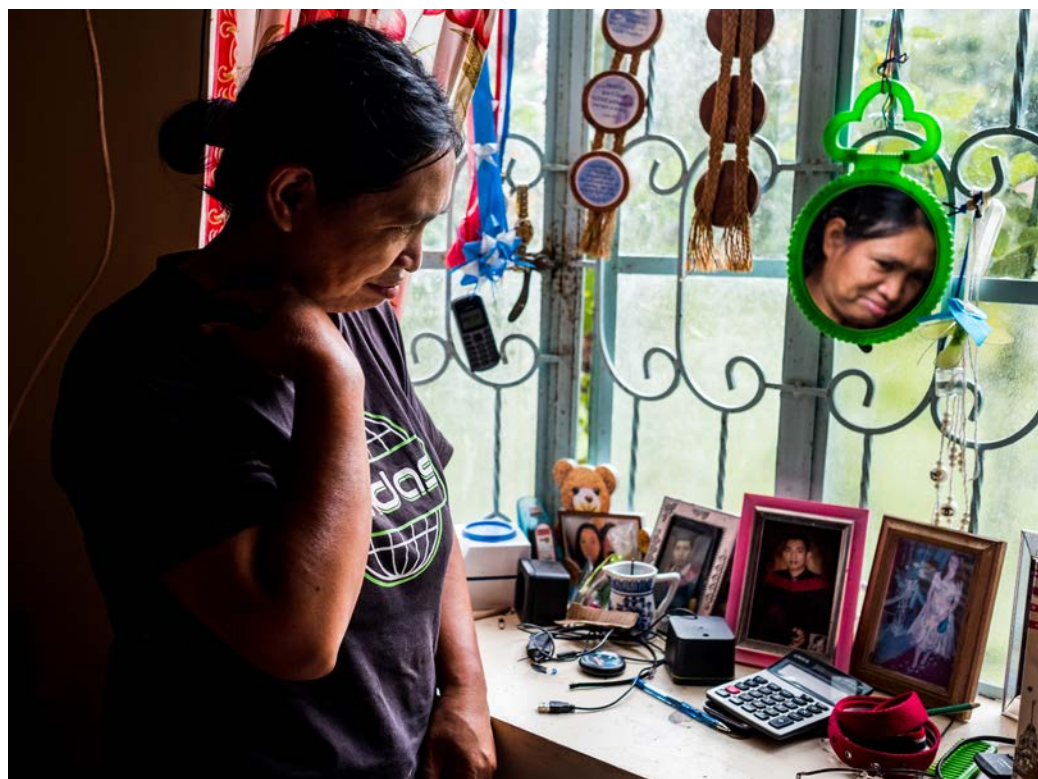
*—Ann Koontz, Relief International*
- **De-linking.** In some cases, implementing partners support enterprises that are not directly linked to biodiversity, such as craft-making and mushroom cultivation in Bwindi-Mgahinga. These enterprises serve as a substitute for livelihoods that are linked to unsustainable use of natural resources. The risk, however, is that the substitute activity is carried out in addition to, rather than in place of, the former resource-dependent activities. To prevent this, implementing partners have learned that they need to put quid pro quo agreements in place that ensure benefits are tied to the substitute activities.

Implementing partners recognize the complexity inherent in intervening to alter stakeholder behaviors, especially related to livelihoods. The potential risk is that if enterprise benefits do not materialize to the extent anticipated, or if expectations change over time among stakeholder groups, positive behavior changes can erode or even lead to increased resentment that results in more negative behaviors than before.

### Resource use rights

Implementing partners strive to provide community organizations with the rights to use and control overuse of the resources needed to generate enterprise benefits. This reinforces the linkage between enterprise benefits

and behavior change. Resource use rights incentivize sustainable management and enable community organizations to exclude outsiders who might exploit inputs. Land tenure ensures communities' rights to live on the land. But resource use rights embedded within land tenure agreements frequently trigger additional requirements around monitoring and payment structures, as well as political implications. As a result, resource use rights present both challenges and changes to enterprise activities. In Palawan, indigenous communities struggle to obtain resource use permits, which undermines the viability and sustainability of the enterprises based on rattan and almaciga resin. In the western Himalayas, government requirements for external environmental assessments create additional burdens for community forest user groups.



*As a result of a secondary school education program designed to complement the conservation enterprise approach, Larna Tindaan, a farmer in Nueva Vizcaya, Philippines, was able to send her four children to secondary school and on to college.*

### Complementary strategic approaches

At all sites, conservation enterprises are implemented as one part of a suite of approaches by various partners, including government and non-governmental organizations, to achieve conservation. Implementing partners select a conservation enterprise approach because (1) they perceive a high degree of linkage between threats to conservation at the site and the livelihood behaviors of community members in the given area and/or (2) livelihood needs are dependent upon the maintenance of specific elements of biodiversity at the site.

Implementing partners emphasized that, without the addition of awareness-building, law enforcement, and other livelihood support, an enterprise approach would most likely not be effective. In addition, community members' use of natural resources, as well as their perception of the interdependence between their livelihoods and biodiversity, changes over time. This means that the complementary strategic approaches need to be designed to adapt over time. Implementing partners frequently use the following strategic approaches to complement conservation enterprise approaches:

- **Awareness-building.** Implementing partners note how community members did not initially perceive their livelihood needs and behaviors to: (1) present a threat to conservation and/or (2) be connected to

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“At all six sites, enterprise approaches in combination with awareness-building, resource use rights, and law enforcement provide communities with sustainable livelihood options that contribute to maintaining or improving the status of biodiversity even as the population increases. Conservation of biodiversity through improved management has, in turn, supported livelihoods, reinforcing this linkage.”

—Ann Koontz, *Relief International*

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or dependent on the maintenance of specific elements of biodiversity. Supporting enterprises provides implementing partners with an entry point into the community to raise overall awareness of the need to protect and manage natural resources.

- **Law enforcement.** At all sites, community organizations whose members benefit from conservation enterprises agree to comply with rules and regulations regarding resource use and conservation within the community-managed or co-managed area. This also includes patrolling and reporting violations to the government.
- **Support for community services.** Support for community services, such as infrastructure, formal education, and health care, appears to strengthen trust and confidence within the communities and make members more willing to listen, plan, and take action to counter internal and external threats to biodiversity. At some sites, community organizations reported that improvements in formal education result in community members transitioning away from traditional resource-extractive livelihoods into non-extractive livelihoods, such as teaching, government service, and ecotourism (Nueva Vizcaya, Petén).

### Learning Question 4: Do positive changes in stakeholders' behaviors lead to a reduction in threats to biodiversity (or restoration)?

At each site, implementing partners and enterprise stakeholders described a reduction in direct threats to biodiversity, such as overharvesting and illegal resource use. At some sites, threat reduction has been corroborated by government and implementing partners, as well as others who monitor national protected areas over time (Chitwan, Bwindi-Mgahinga, Petén). Given that other strategic approaches, such as awareness-building and law enforcement, are being carried out at the site, implementing partners do not attribute overall

threat reduction solely to changes in enterprise beneficiaries' attitudes and behaviors.

The following conditions influence the extent to which positive changes in attitudes and behaviors have contributed to threat reduction at the sites over time:

#### Targeted participation or benefits

Implementing partners noted that when designing the enterprise approach they work to identify the individuals or groups whose attitudes and behaviors need to change, as well as how much change is required and what measures are most likely to bring it about in order to achieve desired threat reductions. Community organizations seem to target benefit distribution toward either: (1) those who directly exploit the resources (threat-inducers) and/



*In Chitwan, Nepal, Community Forest User Groups focused on providing enterprise benefits, such as biogas and cookstoves, which directly reduced reliance on fuelwood from Chitwan National Park and the buffer zone community forests. Targeting benefit distribution to resource users has supported threat reduction.*



or (2) those who are resource-use decision makers and have the greatest ability to stop external actors from exploiting resources.

### Scale of the enterprise approach

Implementing partners and community organizations at each site described that the scale of the enterprise approach (including number of people participating, benefits received, and resulting behavior change) contributes to a reduction in direct threats to biodiversity conservation. As mentioned previously, direct employment is not widespread, but there are significant benefits in the form of access to community services and other related income opportunities. In many cases, the community organizations diversify their enterprises over time to provide benefits to more stakeholders and therefore increase the scale of behavior change and threat reduction.



*In the Maya Biosphere Reserve in Guatemala, the high-value benefits from the enterprise depend on the sustainable harvesting of timber and non-timber forest products in accordance with Forest Stewardship Council standards and government-approved plans.*

In Nueva Vizcaya and the western Himalayas, enterprise scale seems less important than whether the enterprise benefits the poorest members of the community with the fewest opportunities for improved livelihoods. Supporting the poorest appears to create goodwill in the larger community to reduce threats. Given that other strategic approaches, including awareness-building and law enforcement, are also implemented at each site, implementing partners and community organizations face challenges in estimating how enterprise scale contributes to threat reduction relative to other approaches.

### Learning Question 5: Does a reduction in threats (or restoration) lead to conservation?

At all sites, implementing partners, community organizations, and other stakeholders reported that biodiversity status has been maintained or improved over time. At some sites, this is corroborated by external evaluation and research (Petén, Chitwan, Bwindi-Mgahinga). At all sites, implementing partners and community organizations described a kind of virtuous cycle in which conservation is improved through sustainable livelihood practices, which in turn further supports enterprises, which in turn motivates continued commitment to sustainable behaviors.

While implementing partners and community organizations reported that the enterprise approach contributes to conservation, most face limitations in monitoring conservation outcomes and attributing these outcomes to the enterprise approach.

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“Even if you only bring something small at first, people will think that at least you care. Before they would say ‘you love your gorillas more than people’. But with support for enterprises, you are showing that people are also important.”

—Mwine Mark David, former employee of the International Gorilla Conservation Programme, Bwindi-Mgahinga

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## V. FINDINGS BY SITE



### I. PETÉN, GUATEMALA Timber and Non-Timber Forest Product Enterprises Keep the Forest Standing

#### A. Overview

**Implementing Partner**  
Rainforest Alliance

#### **Other Key Partners**

Association of Petén Forest Communities (ACOFOP)  
Guatemalan Government National Council for Protected Areas (CONAP)

#### **The Site and Challenge**

Created in 1990, the Maya Biosphere Reserve is a 2 million-hectare expanse, covering 20% of Guatemala and hosting a large number of endangered plants and wildlife. In the decades before its declaration as a reserve, much of the forest was leased to private logging companies and exploited for high-value timber species, including mahogany and Spanish cedar. Meanwhile, uncontrolled migration was causing human populations and settlements to expand along logging roads and other

### RAINFOREST ALLIANCE

The mission of the Rainforest Alliance is to conserve biodiversity and ensure sustainable livelihoods by transforming land use practices, business practices, and consumer behavior.

**USAID Support:** For nearly 20 years, USAID has funded international and local organizations in Petén, Guatemala to support the development and management of conservation enterprises in the Maya Biosphere Reserve. The objective is to promote biodiversity conservation and sustainable harvest of timber and non-timber products.

access routes, resulting in widespread deforestation. When the reserve was declared, many communities living in and around the Maya Biosphere Reserve saw it as a “conservation land grab,” effectively making local access to the forest illegal. Meanwhile, CONAP, the Guatemalan government agency charged with administration of the Maya Biosphere Reserve, had little capacity to stem external threats from wildlife poaching, illegal logging, deforestation for agriculture and ranching, forest fires, and the looting of archaeological sites.<sup>27</sup>

### The Partners and Approach

A few years after the Maya Biosphere Reserve was established, and following decades of civil war, community leaders organized ACOFOP to advocate for member communities’ legal rights to forest resources. Following years of negotiation the government legally granted forest concessions based on Guatemala’s Protected Areas Law and in compliance with the 1996 Peace Accords, which included a specific agreement on rural access to land and resources. By 2002, the National Council for Protected Areas had allocated more than 530,000 hectares (about a quarter of the reserve) as concessions to community organizations.<sup>28,29</sup>

#### *Twelve community organizations granted concessions:*

- Six non-resident community groups
  - Asociación Integral Forestal de San Andrés
  - Sociedad Civil Laborantes del Bosque
  - Sociedad Civil Impulsores Suchitecos de Desarrollo Integral
  - Sociedad Civil Custodios de la Selva
  - Sociedad Civil el Esfuerzo
  - Sociedad Civil para el Desarrollo Árbol Verde
- Two traditionally forest-dependent resident community groups
  - Cooperativa Integral de Comercialización Carmelita
  - Sociedad Civil Organización Manejo y Conservación Comunidad Uaxactún
- Four resident community groups (migrants from other parts of Guatemala who primarily practiced agriculture as a livelihood)
  - Asociación de Productores Forestales San Miguel la Palotada
  - Asociación de Productores de la Pasadita
  - Asociación Forestal Integral la Colorada
  - Asociación Forestal Integral Cruce la Colorada

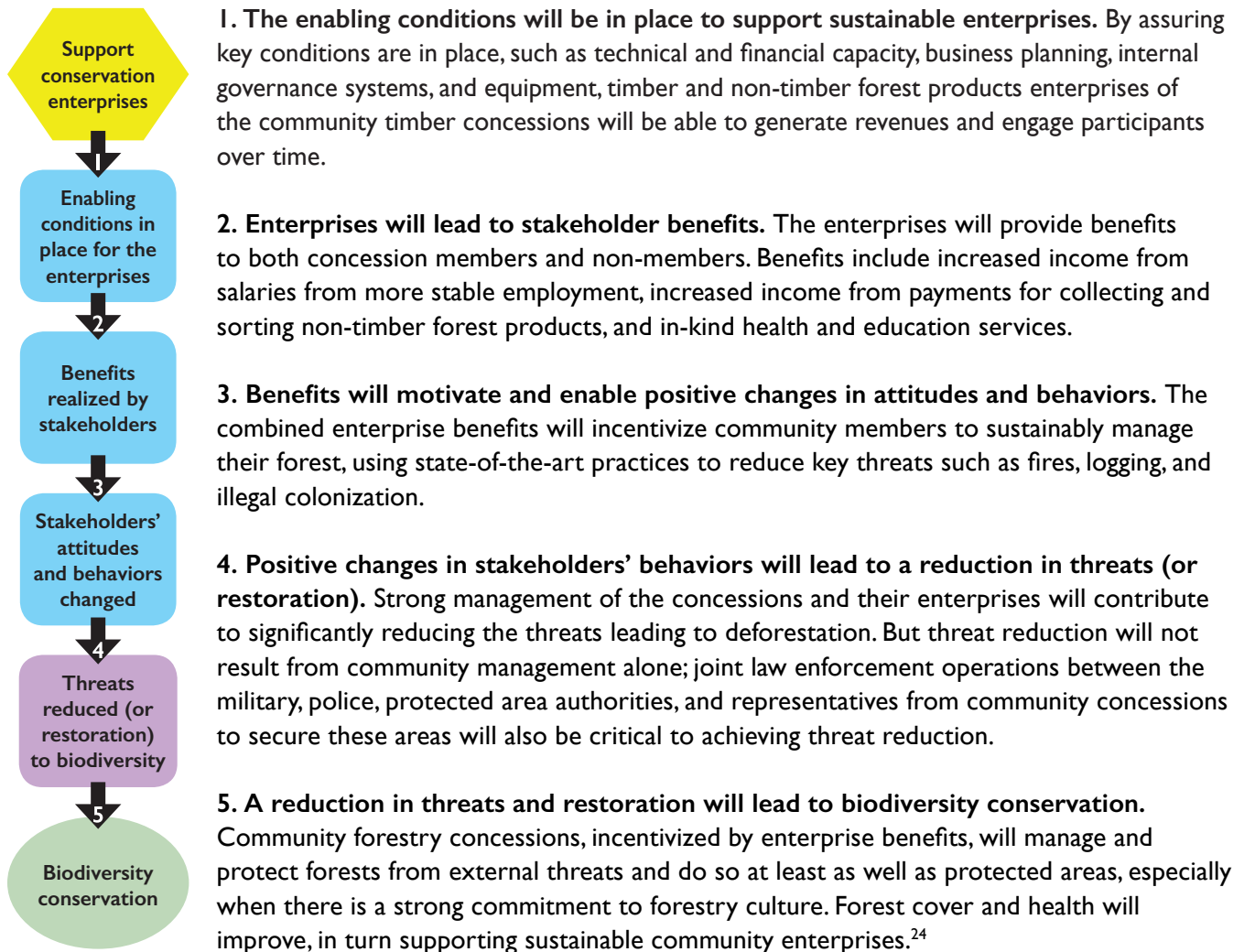
The land within the Maya Biosphere Reserve and its concessions remain the property of the state. Concession contracts last for 25 years and permit community organizations to develop tourism activities and use timber and non-timber products such as xate palm (*Chamaedorea spp.*) and chicle latex (extracted from *Manilkara zapota*). The community organizations that manage the concessions own the enterprises and are responsible for patrolling, monitoring, and reporting illegal activities to the government. To retain contract validity, concessions are required to achieve and maintain Forest Stewardship Council certification.<sup>29</sup>

Community organizations described their success with a number of forest-product value chains, including mahogany, Spanish cedar, xate, chicle gum, breadnut (*ramón*, from *Brosimum alicastrum*), and allspice (*Pimenta dioica*). Some community organizations also provide cultural and ecotourism services.

## B. Theory of Change

Rainforest Alliance staff described that their assumptions about how the enterprise approach would lead to conservation outcomes are consistent with the generalized theory of change for supporting conservation enterprises:

The Rainforest Alliance and its partners support community organizations that manage concessions in the Maya Biosphere Reserve in establishing and sustaining enterprises for timber and non-timber forest products. Their assumptions were:



## C. Outcomes and Assumptions in the Theory of Change

### Are the enabling conditions in place to support sustainable enterprises?

As a result of long-term support from the Rainforest Alliance and other partners, important enabling conditions have been established and maintained in Guatemala, with indications that the community concessions are economically viable and sustainable. The enabling conditions include the following:

- Legal rights to harvest and sell forest products from large areas of high-value natural forest
- An effective umbrella organization such as ACOFOP, which provides a platform to continually advocate for collective legitimacy and needs
- Government support and active co-management, including law enforcement

- Community and government capacity to practice state-of-the-art sustainable forestry, certified to international standards
- Product diversification and value-added processing
- Access to preferred markets and long-term business relationships with buyers committed to responsible sourcing of forest products.<sup>24,28,30-32</sup>

However, Rainforest Alliance Forestry Director Benjamin Hodgdon noted that, “there are still significant pressures on the sustainability of the enterprise model.”<sup>17</sup> Community organizations expressed uncertainty over concession contract renewal or extension, as most contracts will expire around 2025. They also described that interest groups are pressuring the government to expand the Mirador-Rio Azul National Park, which would excise large areas of existing concessions.<sup>33-38</sup>



*Rainforest Alliance staff stress that sound governance has been critical to managing internal conflicts and external pressures related to high-value timber concessions. Felisa Navas Perez, president of the Asociación Forestal Integral Cruce a la Colorada, has revitalized forest enterprise activity.*

Moreover, the Rainforest Alliance and ACOFOP noted that four resident concessions, made up of recent migrants, have not been as successful in establishing and managing their enterprises. Two have had their concession contracts cancelled, one had its management plan suspended, and one is struggling to reestablish its enterprise after years of incursions by external actors. These concessions have struggled with internal conflict, centralization of leadership, lower literacy rates, greater dependence on agricultural and livestock livelihoods, and low levels of forest management knowledge. These concessions are also smaller in size, with lower value timber resources, and are under intense pressure to convert the land to agricultural use, especially illegal cattle ranches.<sup>24,29,36</sup>

### **Adaptive management based on lessons learned**

The Rainforest Alliance is applying the following lessons as it continues to adapt management of enterprise support:

- **Monitor and support evolving governance needs.** Governance capacity and social dynamics are fluid and require constant monitoring and support (both internal and external).<sup>29,39</sup> Therefore, the Rainforest Alliance and ACOFOP expressed their long-term commitment to building strong institutional capacity among the concessions.<sup>24,36,40</sup>

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“A high level of participation by well-informed community members is essential for institutional strength and legitimacy of the enterprises.”

—Benjamin Hodgdon, Rainforest Alliance

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- **Maintain resource rights.** The first concession contracts will be up for renewal or extension in 2023. However, CONAP has not yet established criteria for renewal.<sup>41</sup> The Rainforest Alliance and ACOFOP have initiated the process of helping community concessions advocate for specific criteria for contract renewal so that they can plan for the future.<sup>24,36</sup>

## Do the enterprises lead to benefits for stakeholders?

According to a recent study by Bioversity International and the Rainforest Alliance,<sup>42</sup> enterprise benefits include both significant cash and non-cash benefits for community members, many of whom are at risk for poverty. The

study shows that the following benefits accrue to concession members and, to a certain extent, non-concession members:

- **Employment.** Significant, though often part-time, employment is generated in relation to the extraction of timber and non-timber forest products and their processing and grading. While men find employment in both timber and non-timber forest product operations, women's employment is typically linked to the latter. Community organizations reported that they prioritize members and their families for employment benefits; however, if conditions warrant, such benefits may also extend to non-members.



*Cooperativa Integral de Comercialización Carmelita is celebrating 20 years as a community forest concession and has crowned its "Princesita."*

A survey of six active community organizations in 2017 revealed that, on average, each enterprise had 13 full-time and 49 part-time employees. Wages and number employed widely varies among community organizations.

- **Payment for collection and sorting.** The collection and sorting of non-timber forest products has provided additional income for both members and non-members. Unlike timber, this source of income is available for several months, if not throughout the year.
- **Dividends.** In the community organizations constituted as limited liability companies (not as non-profit associations or cooperatives), part of the enterprise profits can be paid out as dividends to each concession member annually. Dividend payments to each member vary from a few hundred dollars to more than \$6,000 per year, depending on business performance and the number of members. As a result, some community organizations are reluctant to admit new members and may have a membership of a few dozen. In contrast, non-profit associations embrace new members and have a membership of 300 or more.
- **Community services.** Many community organizations have internal statutes that require investing a portion of their returns in projects that benefit the community, such as health and education services, rural infrastructure, and cultural revitalization. Decisions about what to support are made internally by members of the community organizations based on their budgets.

### *Adaptive management based on lessons learned*

Rainforest Alliance is applying the following lessons as it continues to adapt management of enterprise support:

- **Encourage reinvesting of profits for growth.** The Rainforest Alliance encourages community organizations, where feasible, to resist pressure to pay out all enterprise profits as dividends and instead invest in infrastructure and working capital reserves to grow the enterprise. If community organizations do so, they can increase their returns in a relatively short period of time.<sup>17</sup>

- **Continue livelihood diversification to spread benefits.** The Rainforest Alliance encourages community organizations to diversify their products. Hodgdon described that, “diversification of enterprises, especially into non-timber forest products, such as xate and ramón, and value-added production, such as sawed timber, helps maximize benefits for a greater number of community members.”<sup>17,43</sup> Additionally, the establishment and development of a second-tier, community-owned business has been very important in adding value to timber products and accessing preferred markets.<sup>24,29,44</sup>
- **Provide ongoing support for governance.** The Rainforest Alliance stressed that a solid social basis for decision making, transparency, and accountability in the governance of the community organizations and their enterprises helps sustain benefits to concession members over many years.<sup>24</sup>

### Do the benefits realized by stakeholders lead to positive changes in conservation attitudes and behaviors?

All active community organizations have Forest Stewardship Council certification, a precondition for concession contract validity. All practice low-impact harvesting according to government-approved management plans. They actively monitor and protect their forests against forest fires, illegal logging, and illegal colonization.<sup>24,27,28,33-38,40</sup> As a result, active concessions are widely recognized to be keeping the forest intact as effectively as strictly-protected government-managed areas. CONAP is working with ACOFOP and communities to add two new concessions to the Multiple Use Zone.<sup>24,37,41</sup>

Concession members reported that the combined benefits from timber and non-timber forest product enterprises provide incentives for them to manage and protect their forest. Benefits in the form of income and community services also incentivized non-members in the communities to comply with regulations. The desire to be considered for membership in the concession or employment in the enterprises also motivates non-members to comply.<sup>34-38</sup>

However, Hodgdon noted that, “social dynamics vary for non-resident versus resident concessions and critics of the community concession system point to inequities in the distribution of benefits among stakeholder groups as potentially causing conflict and disrupting positive conservation behaviors.”<sup>17</sup>

A recent study by Bioversity International and the Rainforest Alliance<sup>42</sup> found that the six resident concessions actively promote new membership and seek to involve all community members in the concession and its benefits. The six non-resident concessions do not seek to expand membership, possibly because members reside in small local towns and pursue a variety of other livelihood activities outside of forestry. Community organization members described that limited membership causes tension and resentment among some non-members. By sharing benefits more widely with non-members, some community organizations have helped to promote goodwill and support for conservation efforts.<sup>34-38</sup>



*This child in Uaxactún, is counting and signing for the money that his family makes from collecting and sorting xate.*

### Adaptive management based on lessons learned

Rainforest Alliance is applying the following lessons as it continues to adapt management of enterprise support:

- **Diversify enterprises to expand benefits and behavior change.** The Rainforest Alliance found that greater diversification into non-timber forest products (e.g., xate, chicle, ramón), as well as lesser-known timber species, demonstrates potential to create employment and income opportunities for both concession members and non-members, especially women, without disrupting commercial timber operations. The extension of benefits to non-members helps improve compliance with regulations.<sup>24,31,38</sup>
- **Reinvest profits in enterprise development.** Better profit margins and an increased focus on business competitiveness allow some communities to invest in enterprise development. Rainforest Alliance urges community organizations to reinvest a percentage of earnings into working capital reserves and infrastructure to avoid accumulating debt to buyers and to sustain forest management and value-added production activities.<sup>24,40</sup>

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“As communities continue to diversify their enterprises to provide direct employment to more people, including non-members, this helps to build wider-spread support for conservation.”

—Ben Hodgdon, Rainforest Alliance

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### Do positive changes in stakeholders’ behaviors lead to a reduction in threats to biodiversity (or restoration)?

The Rainforest Alliance and community members reported that community management within concessions is effective at reducing deforestation. Compared to both adjacent areas with strict protection and the buffer zone, deforestation rates in active concessions are lower. Concessions where communities are traditionally forest-

dependent are the most successful, with minimal deforestation. These concessions include the six non-resident concessions and Uaxactún and Carmelita. Most deforestation in the Multiple Use Zone occurred in the cancelled concessions and in the biological corridors, which were established to ensure ecological connectivity between core zone units.<sup>24,30,46</sup>

The Rainforest Alliance attributed the reduction in threats to compliance with government-approved management plans and Forest Stewardship Council certification.<sup>24,47</sup> Cancellation of two and suspension of one of the concessions has led to higher rates of deforestation through expansion of farming and cattle ranching.<sup>48</sup> The Rainforest Alliance and its partners

did not attribute threat reduction to community forestry management alone. Joint law enforcement operations are also critical and involve the military, police, and protected area authorities, as well as representatives from community concessions.<sup>24,41,49</sup>



*Diversification into non-timber forest product enterprises, such as collecting and sorting xate palm, offers consistent and direct employment to more people in the community.*



### *Adaptive management based on lessons learned*

The Rainforest Alliance is applying the following lesson as it continues to adapt management of enterprise support:

- **Support certification.** Hodgdon described that, “the requirement to achieve and maintain Forest Stewardship Council certification allows for third-party monitoring and continual improvement.”<sup>17</sup> Certification promotes use of best practices in tropical forest management and helps ensure threat reduction.<sup>24,30,43,47,50</sup>

### **Are reductions in threats influencing the status of biodiversity?**

Beyond using forest cover change and forestry best practices as proxies for biodiversity conservation, new evidence from Polisar et al. shows that active concessions harbor an abundance of jaguar and prey species, which suggests that sustainable forestry is compatible with conserving endangered large mammals.<sup>51</sup> However, findings from Hodgdon et al. indicate that in the four resident concessions with recent migrants, where land speculation and illegal land conversion are ongoing problems, the deforestation rate is higher.<sup>46</sup>

### *Adaptive management based on lessons learned*

Rainforest Alliance applies the following lessons as it continues to adapt management of enterprise support:

- **Advocate for renewal and expansion of concessions.** Hodgdon et al.<sup>52</sup> shows that enterprises based on community forestry concessions, in which communities are given rights over high-value forest resources, have reduced threats and conserved forests as well as, if not more effectively than, government-managed protected areas. Based on the performance of the concessions, the Rainforest Alliance is supporting ACOFOP efforts to renew and expand active concessions.<sup>24,33</sup>



*Community-managed concessions have lower rates of deforestation as compared to adjacent areas with strict protection and the buffer zone of the Maya Biosphere Reserve.<sup>52</sup>*

- **Provide continued support to track and address anticipated threats.** The Rainforest Alliance and its partners emphasized that significant political will and sustained investment in technical and financial support are required to build commitment to a forest stewardship model and reduce threats over the long term. Because of high levels of conflict in the region, even efficiently managed timber concessions continue to require additional outside support in order to mitigate threats and thwart illicit forest use.<sup>24,33,34,49</sup>



## II. NUEVA VIZCAYA, PHILIPPINES

Trusted Leadership and Forest Fruits Inspire a Culture of Conservation

### A. Overview

#### Implementing Partner

Kalahan Educational Foundation (KEF)

#### Other Key Partners

Non-timber Forest Product Exchange Program

Federation of Peoples' Sustainable Development Cooperative

#### The Site and Challenge

Nueva Vizcaya is home to the Ikalahan tribe, one of several from the Cordillera and Caraballo Mountains in northern Luzon, Philippines. The Ikalahan, traditionally hunters and gatherers, have been engaged in swidden agriculture (shifting cultivation) in recent centuries. In the 1970s, communities were given notice that, as squatters on state-owned land, they faced eviction from their ancestral domain. This left them with little motivation to protect the forests and watersheds around Nueva Vizcaya.<sup>53,54</sup>

#### The Partners and Approach

KEF, founded in 1973 by elders from the Ikalahan tribe, was established to help the Ikalahan people obtain legal rights to their resources, improve their livelihoods, and support forest restoration and protection.

### KALAHAN EDUCATIONAL FOUNDATION (KEF)

In 1973, Ikalahan tribal elders organized KEF to protect communities and their resources from land grabbers. KEF became a community-led organization with the mission of promoting education and protecting the environment for the Ikalahan people. KEF's aims include developing sustainable forest-based livelihoods and improving watershed and biodiversity conservation.

**USAID Support:** From 1994 to 1998, USAID supported KEF's conservation enterprises through the Biodiversity Conservation Network.

Through KEF, the community obtained their Certificate of Ancestral Domain Title for about 15,000 hectares of Nueva Vizcaya. The certificate permits indigenous peoples to occupy, use, and develop forest land for 25 years, followed by an option to extend the lease for another 25 years.<sup>55</sup> KEF also created a strong internal governance system, provided widespread access to secondary education, and inspired a community culture of valuing the forest.<sup>56</sup>

In the early 1980s, KEF built a fruit processing facility to produce jams, jellies, and other products made from wild forest fruits. Today, they buy wild fruits, including guava and daguey, a prune-like Filipino fruit harvested from native forests, from community members and hire employees to develop recipes and make products. At the same time, they provide technical assistance and native fruit trees to farmers transitioning from swidden farming to agroforestry methods. KEF, which is both the implementing partner and the community organization managing the enterprises, has advanced forest conservation through these and other approaches.<sup>57,58</sup>

## B. Theory of Change

KEF's assumptions about how their enterprise approach would lead to conservation outcomes are consistent with the generalized theory of change for supporting conservation enterprises:

**KEF develops and manages a fruit processing facility that produces and sells various products made from wild fruits. Their assumptions were:**



## C. Outcomes and Assumptions in the Theory of Change

### Are the enabling conditions in place to support sustainable enterprises?

KEF identified the following key enabling conditions and continues to work to make the enterprise more sustainable:

- Initially KEF produced only guava jam and jelly, but the enterprise has now expanded to include many types of fruit products.
- The enterprise provides employment to community members. On average, 35 women collect fruit during the season, with ten processing the fruit. Collectors are paid by the kilogram.
- The facility was built using low-technology equipment and infrastructure, so that it could be easily repaired and replaced. It is currently in need of an upgrade.
- The enterprise has technical capacity, having received substantial assistance from the Food Technology Department of the University of the Philippines in Los Baños when encountering serious issues such as food contamination.
- There is a market for the products. They are mostly sold in supermarkets in Manila to high-end, environmentally and health-conscious consumers.
- The enterprise received the initial capital for building the facility from various donors. Difficulty accessing credit and capital to upgrade equipment and purchase fruit from collectors poses an ongoing challenge to enterprise sustainability.
- It is important to note that the enterprise does not yet make a profit and has been subsidized by the family of KEF's founder.<sup>56-58</sup>



*Christie Rowena Plantilla, CEO of the Federation of People's Sustainable Development Cooperative, discusses plans to support KEF's Mountain Fresh products. KEF is partnering with the cooperative to improve its production facilities, marketing, and distribution.*

### Adaptive management based on lessons learned

KEF has applied the following lessons as it continues to adapt management of enterprise support:

- **Ensure sustainable inputs.** Sugar, jars, lids, and labels are readily accessible and represent about half the cost of production. The high price of sugar has a large effect on profits. In response, KEF developed a line of low-sugar products to reduce dependency on sugar inputs.<sup>56</sup>
- **Continue to cultivate business partnerships.** In order to increase enterprise profitability and participation, KEF works with business partners to improve products

and processes. For example, KEF is receiving partner support to update equipment in the fruit processing facility to comply with government requirements and expand to new markets.<sup>56,59</sup>

- **Diversify to expand participation.** KEF leaders have taken an adaptive management approach to ensuring financial sustainability and providing more opportunities for participation by diversifying enterprises. They have continually expanded their fruit products and are experimenting with mushroom growing and shade-grown coffee.<sup>60</sup>

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“The concept here is that we stay in the forest, but we protect the forest. That is why the very purpose of the fruit processing is that the people will gather the wild fruits and process them and make them into cash. People will protect the forests because it provides a source of income.”

—Moises Pindog, community member

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### Does the enterprise lead to benefits for stakeholders?

The enterprise provides additional cash income to a small portion of the community – those with the fewest opportunities for better employment. The women who collect and process fruit use the additional income to pay school fees and buy food they cannot grow, such as rice, salt, and oil, as well as other goods. Tynee Rice, who manages the processing enterprise, described that the community has transitioned from subsistence agriculture to a more cash-dependent economy, saying, “These women want, and can use, cash 365 days of the year. Their families now prefer buying and eating rice over the traditional staple of sweet potatoes they would grow.”<sup>57</sup>

#### Adaptive management based on lessons learned

KEF has applied the following lesson as it continues to adapt management of enterprise support:

- **Diversify and scale to expand benefits.** To provide cash and non-cash benefits to the community, KEF recognizes that they still need to address the level of participation and profitability of the enterprises they support. This includes engaging more community members so that benefits are more widespread.<sup>60</sup>



KEF staff member Enersto Bagiwan wets logs that have been inoculated with spores for growing shiitake mushrooms, part of KEF's ongoing effort to diversify livelihoods using activities that are compatible with forest conservation.

### Do the benefits realized by the stakeholders lead to positive changes in attitudes and behaviors?

Despite lack of widespread benefits from the enterprise, community members perceive the importance of protecting and restoring the forest because it provides wild fruits for the enterprise. The harvesters are community members who lack other cash-earning opportunities, so the seasonal income is significant for them.<sup>57,61</sup> The fruit processing enterprise is a source of community pride, and it has brought donor and government support for conservation. The enterprise has also inspired other fruit processing businesses in the area.<sup>57</sup>

Changes in practices include a move away from swidden agriculture toward some agroforestry and some cash crops, as well as reforestation of common areas and farmed claims. According to David Marcelo, KEF's natural resources program manager, KEF has received several National Greening Program grants and awards for their success increasing tree planting survival rates.<sup>58</sup>

In addition to the enterprise, other KEF strategies are essential to motivating positive changes in attitudes and behaviors, including the following:

- **Support land tenure.** Land tenure was KEF's first and primary concern as a means to secure rights and remove community's status as squatters.<sup>53</sup> KEF obtained a Certificate of Ancestral Domain Title, which allows indigenous peoples to register their legal claim to ancestral lands and gain resource use rights and management responsibilities. Land tenure provides the primary motivation for the community to restore and protect the forest.<sup>60,63,64</sup>
- **Provide formal education.** Almost all of the community's children graduate from Kalahan Academy, a secondary school created by KEF. The school teaches ecology using the local environment as an outdoor classroom. Many students are now professionals who have returned to the community to serve KEF. In fact, most KEF staff and teachers are academy graduates. Others are serving as barangay (local government) officials in the area or working in the municipal office of Santa Fe, Nueva Vizcaya.<sup>18,65</sup>
- **Build awareness.** With BCN support, KEF previously held ecology seminars, including discussions about threats to the forest and the need for conservation. Currently, however, they lack sufficient funds to maintain that program. KEF holds information dissemination meetings biannually where community members are recognized for their conservation actions.<sup>58</sup>
- **Enforce policies.** KEF and its associated enterprises are owned and governed by Ikalahan community members and tribal elders. Under their Certificate of Ancestral Domain Title, KEF defined policies to restrict hunting, fishing, timber collection, and forest clearing and enforces these policies with support of the government.<sup>58,66</sup>



David Marcelo, Program Coordinator for KEF's Natural Resources Development Program, uses a handcrafted 3-D map to show how the community will continue promoting reforestation within their ancestral domain claim.

#### *Adaptive management based on lessons learned*

KEF has applied the following lessons as it continues to adapt management of enterprise support:

- **Nurture a sense of pride in forest conservation.** KEF's enterprise approach has provided a great sense of pride and political enthusiasm, which has resulted in support for forest conservation among community members.<sup>56-58</sup>
- **Make enterprises more economically competitive with threat-inducing alternatives.** In addition to community pride, enterprises need to provide stronger

economic alternatives to expanding agriculture and offer more competitive incentives to restore and protect forests on farms. Community members need enterprise benefits to be better than the wages they would earn doing less conservation-friendly work, such as growing and selling sayote (*Sechium edule*).<sup>57, 61</sup>

### Do positive changes in stakeholders' behaviors lead to a reduction in threats to biodiversity (or restoration)?

KEF reported that, as a result of their efforts to enforce policies and build a culture of valuing the forest, timber cutting and forest clearing have been reduced and large areas of forest restored.<sup>58</sup> KEF noted that formal education has also helped reduce pressure on the forest. Kalahan Academy struggles financially, but the school instills an ethic of forest conservation in most of the community's children. Perhaps even more important is the number of students who leave for college, decide not to farm, and instead find employment outside the community or abroad. This trend reduces pressure of an otherwise growing population.<sup>18, 65</sup>

Unfortunately, evidence of conservation-friendly attitudes in the community is offset by new external threats, including a paved road and new commercial agricultural activity around the cultivation of sayote (a type of squash). These threats will adversely affect the forest and, therefore, increase the need for KEF to advocate for conservation through providing alternative livelihoods.<sup>18, 57, 58, 60</sup>

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“Some members have killed even guava trees to grow sayote, because they can make more money. Over the past few years, the new road and sayote are destroying the efforts KEF has made over the past few decades.”

—Tynne Rice, Program Coordinator for KEF

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### Adaptive management based on lessons learned

KEF has applied the following lessons as it continues to adapt management of enterprise support:

- **Provide continued capacity to track and address looming threats.** KEF has learned from experience that mitigating threats is an ever-evolving job. KEF helps community members address ongoing threats to biodiversity, such as road construction, and attend to new threats as they emerge, such as sayote cultivation.<sup>58, 60</sup>
- **Employ a suite of strategies to reduce threats.** The Certificate of Ancestral Domain Title and KEF's relationship with the local Department of Environment and Natural Resources gives them close to full autonomy in managing resource use within their ancestral domain



*Sayote, a relatively new cash crop referred to as “green gold” by farmers, is grown on extensive trellises. While it provides income for many community members, it is incompatible with agroforestry and presents new threats to the forest.*

claim. KEF recognizes the importance of enforcing policies for resource use, in addition to strengthening and adapting their various strategic approaches, including building awareness, providing formal education, and diversifying sustainable livelihood options.<sup>60</sup>

### **Does a reduction in threats (or restoration) lead to conservation?**

While fire is a common threat in the forests of the northern Philippines, KEF has effectively addressed wildfires within the Ancestral Domain Title area. KEF also designated more than 4,000 hectares of primarily old-growth forest as sanctuary forest, where resource use is excluded. KEF estimates that more than 2,500 hectares of forest have been restored on farms and in common areas through tree planting and natural regeneration.<sup>60,67</sup> Community members interviewed clearly associate enterprise sustainability with forest conservation and recognize the need to further reduce threats.<sup>68-71</sup>

### ***Adaptive management based on lessons learned***

KEF has applied the following lessons as it continues to adapt management of enterprise support:

- **Continue to promote forest restoration.** KEF intends to continue and expand reforestation through the National Green Program and protection of secondary forest in family claim areas.<sup>58, 60</sup>
- **Build capacity to improve monitoring efforts.** To better understand conservation outcomes, KEF is also in the process of delineating and taking inventory of their sanctuary forests.<sup>58, 60</sup>





### III. PALAWAN ISLAND, PHILIPPINES

Rattan, Resin, and Wild Honey Help Communities Conserve Their Forests

#### A. Overview

##### Implementing Partner

Nagakakaisang Tribu ng Palawan (NATRIPAL)

##### Other Key Partners

World Wildlife Fund

Tanggapang Panligal ng Katutubong Pilipino

Tribal Filipino Apostolate

Palawan NGO Network

Environmental Legal Assistance Center

##### The Site and Challenge

Designated as a United Nations Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserve, Palawan has been described as the last natural frontier in the Philippines. About half of this island province is still forested, providing important habitat for wildlife.<sup>72</sup> The forests are also home to the Tagbanua, Batak, and Palawan indigenous groups, whose territories, natural resources, and cultures have faced rapidly growing threats over the past few decades from unregulated resource exploitation, encroachment by agricultural expansion, commercial mining, and oil palm plantations.<sup>73-75</sup>

#### NAGKAKAISANG TRIBU NG PALAWAN (NATRIPAL)

NATRIPAL, a federation of indigenous peoples' associations, was organized for the communities of Palawan Island to address economic exploitation, environmental abuse, and challenges to cultural integrity and tenure security.

**USAID Support:** USAID funded work by NATRIPAL and their partners through BCN from 1994 to 1998.

Traditionally, the indigenous communities of Palawan Island have practiced swidden agriculture for subsistence, in addition to harvesting rattan (*Calamus sp.*), almaciga resin (from *Agathis philippinensis*, used to make varnishes and burned as incense in religious ceremonies), and wild honey to earn cash.<sup>74,75</sup> With few opportunities to access end markets for rattan and resin, the community relies on traders who provide loans for resource use permits but set low prices, thus keeping community members' income low and increasing pressure to overharvest.<sup>75,76</sup> In the mid-1990s, government policies designed to reduce swidden agriculture to conserve the forests led to even greater



*Indigenous peoples' associations protect the primary forest within their ancestral domain claim, because it provides non-timber forest products that they can harvest and sell for cash.*

overharvesting of non-timber forest products as communities struggled to make an income and repay debts to traders.<sup>74</sup>

Palawan Island also faces external threats common to island landscapes across Asia. Indigenous groups are often approached by private companies offering income, services, and financial assistance in exchange for concessions for mining, coconut plantations, or oil palm plantations. Grizelda Mayo-Anda of the Environmental Legal Assistance Center noted, "Because these indigenous groups are poor, isolated, and marginalized, local inhabitants and the forests they depend on are highly vulnerable to this type of exploitation, which undermines both forest ecosystem health and local livelihoods."<sup>77</sup>

### **The Partners and Approach**

In 1989, NATRIPAL, a federation of indigenous peoples' associations in Palawan, organized to advocate for ancestral land tenure rights, enhance their capacity for sustainable management, and expand their trade and marketing of non-timber forest products.

Supported by BCN, NATRIPAL began by partnering with indigenous peoples' associations in four communities. The first, Cayasan, is occupied by the Batak and Tagbanua peoples, and the second, Cabayugan, by the Tagbanua. Both are located in Puerto Princesa, adjacent to Puerto Princesa Subterranean River National Park, also known as Saint Paul National Park), and one of the most notable protected areas in the Philippines. The other two communities, Campung Ulay and Punta Baja, are occupied by the Tagbanua and Palawan peoples and are located in the Municipality of Rizal in Southern Palawan, at the foot of Mount Mantalingahan Range, the highest peak in the country.<sup>73</sup>

Ultimately, NATRIPAL and other partners were able to help these communities secure Certificates of Ancestral Domain Claim from the Philippines Department of Environment and Natural Resources. These certificates permit indigenous peoples to occupy, use, and develop forest land and to form associations to manage income derived from forest products. The government provides oversight and may revoke rights if the certificate terms are violated.<sup>21</sup>

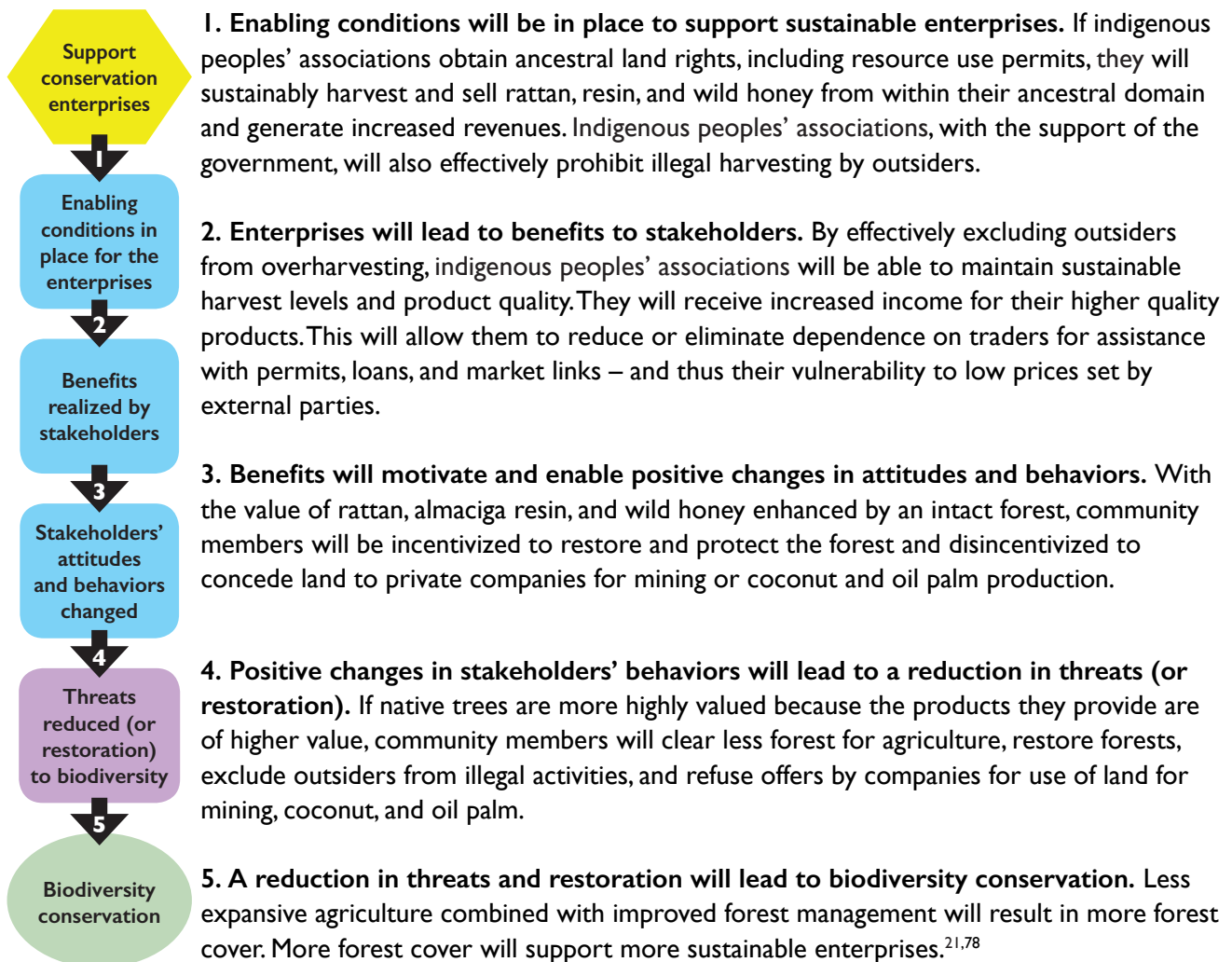
With resource rights in place at each site, NATRIPAL began supporting the indigenous peoples' associations in managing conservation enterprises that are still in operation today. The enterprises are based on sustainable harvesting and selling of wild honey, rattan, and almaciga resin.

NATRIPAL's membership has grown from the original four indigenous peoples' associations under BCN to a federation of over 60 in communities across the Palawan. NATRIPAL continues to work with indigenous peoples to obtain land tenure rights and resource use permits, develop management plans, and secure or strengthen market linkages for their non-timber forest products.<sup>21</sup>

## B. Theory of Change

NATRIPAL's assumptions about how their enterprise approach would lead to conservation outcomes are consistent with the generalized theory of change for supporting conservation enterprises:

**NATRIPAL and its partners support indigenous peoples' associations in obtaining ancestral land rights, including resource use permits, and in sustainably harvesting and selling rattan, almaciga resin, and wild honey from within their ancestral domain. Their assumptions were:**



## C. Outcomes and Assumptions in the Theory of Change

### Are the enabling conditions in place to support sustainable enterprises?

With support from NATRIPAL and other partners, the indigenous peoples' associations have tried to increase revenues from rattan and almaciga resin but have had limited success. NATRIPAL described having more success helping individual wild honey collectors increase revenues. However, as honey represents a minor source of income, they continue to focus their community support on improving resource rights, gaining access to resource use permits, and creating direct links to end markets for rattan and almaciga resin.<sup>25</sup>

- **Resource rights.** Throughout the 1990s, NATRIPAL and its partners helped about 20 indigenous peoples' associations acquire Certificates of Ancestral Domain Claims. They also formed a federation of indigenous peoples' associations to collectively advocate for their legitimacy and needs. However, to strengthen their tenure, indigenous peoples' associations must now obtain Certificates of Ancestral Domain Title. Grizelda Mayo-Anda from the Environmental Legal Assistance Center, a key NATRIPAL partner, explained that obtaining these titles presents communities with additional hurdles. For example, applicants must conduct costly surveys and inventories and navigate complex legal requirements.<sup>77</sup>

“Despite extensive donor, technical, and legal support, indigenous peoples' associations that have already secured ancestral domain claims are now struggling to obtain titles in order to gain additional tenure security over resources.”

—Grizelda Mayo-Anda, Environmental Legal Assistance Center
- **Resource use permits.** Indigenous peoples' associations explain that they still struggle to afford resource use permits, relying on loans from traders that reduce their income. Community members harvest rattan and almaciga resin from forests within their ancestral domain and sell them to traders who sell them to processors in Manila, Cebu, and China.<sup>79,80</sup> However, the selling of rattan and almaciga resin from the ancestral domain claim requires an annual resource use permit from the government, which is time-consuming and expensive for applicants to obtain, resulting in the reliance on traders. Traders dictate the pricing structure to recoup the added expenses, which results in lower prices paid to collectors.<sup>25,81</sup> NATRIPAL continues to coordinate with all stakeholders to improve indigenous peoples' access to permits and increase their income.<sup>25</sup>
- **Aggregation, value addition, and direct access to markets.** NATRIPAL supports the indigenous peoples' associations and their members in gaining direct access to markets for products, including:
  - **Wild honey.** Wild honey collected by individual community members has traditionally been sold in local markets for low prices. NATRIPAL staff have developed an enterprise that aggregates honey from collectors across many communities for sale to an expanded market. Initially, moving beyond local markets required improving product quality, so NATRIPAL worked with community members to improve harvesting techniques. Community members now transport and sell their honeycombs to NATRIPAL at a higher price, and NATRIPAL processes, bottles, markets, and distributes the honey locally and in Manila. Dionesia Banua, Executive Director of NATRIPAL, noted that there are still challenges, including: (1) honey production has been highly variable over the years; (2) NATRIPAL needs additional certifications to market their honey more widely; and (3) NATRIPAL struggles to maintain sufficient working capital to purchase the honeycombs from community members.<sup>21, 25</sup>
  - **Rattan and almaciga resin.** Mercedes Limsa, former Executive Director of NATRIPAL, explained that, initially, NATRIPAL assisted communities with methods for adding value to rattan (e.g., making furniture). However, because community members require all of their income for food and other immediate needs, investing in product development ahead of receiving income was a barrier to success.<sup>82</sup> Today, the Non-Timber Forest Product Exchange program, a NATRIPAL partner, is helping communities establish a group that can consolidate and negotiate prices for rattan and resin directly with buyers.<sup>82</sup>

### Adaptive management based on lessons learned

NATRIPAL has applied the following lessons as it continues to adapt management of enterprise support:

- **Ensure community access to capital and resource rights.** Banua described that NATRIPAL originally intended to become an aggregator of honey, rattan, and almaciga resin from community organizations and provide the linkage to direct markets. However, this required NATRIPAL to have sufficient capital to help communities obtain resource use permits, purchase inputs, and transport products, all before selling to end markets. Sustaining these upfront costs was possible with lower-value honey but became an insurmountable obstacle for higher-value rattan and resin. NATRIPAL has responded by focusing on supporting the organizations in obtaining resource rights and the capital needed to obtain resource use permits, as well as working with buyers on transport and market access.<sup>21, 78</sup>



*Abenesto Dequen, a member of one of Palawan's indigenous peoples' associations, supplements his income by making products from the raw materials harvested by the association, such as this baby walker.*

- **Foster communication among actors in the value chain.** Banua noted that lack of good communication between suppliers (the communities), traders, and end markets, especially regarding the appropriate handling and quality of products, has been an ongoing challenge. NATRIPAL and other partners have found it effective to facilitate outings or workshops that bring these actors together, clarify the value chain process, and help communities deliver higher quality products to maximize profits.<sup>21, 83</sup>

### Does the enterprise lead to benefits for stakeholders?

Indigenous community members described their strong desire to move from subsistence farming and day labor to a cash economy based on enterprises such as rattan, almaciga resin, and honey. Households use cash from non-timber forest product sales to send children to school and purchase clothing and food they cannot grow.<sup>84-88</sup>

Recognizing that collectors hold the most difficult job in the enterprise value chain yet receive the least benefit,<sup>81</sup> NATRIPAL works with indigenous peoples' associations to increase income from non-timber forest products and direct it to collectors and other vulnerable community members in the following ways:

- **Income from wild honey.** NATRIPAL staff described that they pay individual collectors better prices for wild honey than local markets. However, honey production is seasonal, lower value than other products, and has been declining due to reduction in honey bee populations.<sup>25</sup>

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“After more than two decades, NATRIPAL has made gradual achievements in the empowerment of the indigenous peoples against many political odds. Our chief mission remains to gain recognition for the rights over ancestral domains to support the sustainable livelihoods of our communities.”

—Dionesia Banua, Executive Director, NATRIPAL

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- **Income from rattan and almaciga resin.** Community members explained that, for those indigenous peoples' associations that can obtain a resource use permit, income from rattan and almaciga resin sales is distributed based on the quality and quantity harvested by each team from designated zones within the ancestral domain. NATRIPAL and community members reported that prices for these raw materials, which are low and determined by traders, still provide an important source of income.<sup>25,85-89</sup>
- **Community services.** Community members described that a portion of revenue is designated to fund community services, such as infrastructure, health, and education. However, even though there are primary schools that did not exist 20 years ago, many communities are too remote to enable their children to access secondary education.<sup>85-89</sup> NATRIPAL staff described that community infrastructure has improved, but, because support has also been provided by other development programs, it is difficult to attribute improvements to enterprise benefits alone.<sup>25</sup>

### *Adaptive management based on lessons learned*

NATRIPAL has applied the following lesson as it continues to adapt management of enterprise support:

- **Advocate for resource rights.** Community members described that income from rattan and almaciga resin remains low, given the continued dependence on traders for permits and sale.<sup>85-89</sup> Honey does not require a resource use permit but provides less income. Banua explained that NATRIPAL continues to focus on assistance with resource rights, use permits, transport, and linkages with buyers in order to increase income to indigenous peoples' associations and benefits to their members.<sup>21,25</sup>

### **Do the benefits realized by stakeholders lead to positive changes in attitudes and behaviors?**

Community members noted that, despite relatively weak revenue from sales of rattan and almaciga resin, they still place a high value on this primary cash income source and understand the importance of protecting the forest within their ancestral domain. The indigenous peoples' associations support and monitor the use of sustainable extraction and conservation practices, which are spelled out in ancestral domain management plans. Some communities also participate in the National Green Program and are paid to plant and care for trees.<sup>85-89</sup>

NATRIPAL reported that the sense of stewardship conferred by having resource rights and the benefits from selling non-timber forest products encourages community members to report illegal activities by outside parties, such as land grabbing, illegal clearing for agriculture, charcoal production, and timber extraction.<sup>21,25</sup>

Communities expressed frustration that enforcement by park authorities and the Department of the Environment and Natural Resources is not stronger.<sup>85-89</sup>

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“Today, there are other emerging and serious threats to Palawan’s forests and biodiversity, including wildlife trafficking, mining, and conversion of forests for coconut and oil palm plantations by private companies. Private companies are taking advantage of communities struggling to obtain Certificates of Ancestral Domain Titles by offering financial assistance.”

—Grizelda Mayo-Anda, Environmental Legal Assistance Center

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### *Adaptive management based on lessons learned*

NATRIPAL has applied the following lesson as it continues to adapt management of enterprise support:

- **Continue to advocate for resource rights.** Given the strong link between enterprise benefits and sustainable resource management, NATRIPAL continues to believe that if indigenous peoples' associations obtain use permits affordably, and earn higher prices for rattan and almaciga resin, they will be more incentivized to manage the forest and report violations. So, advocating for resource rights remains a top priority.<sup>21,25</sup>

## Do the positive changes in stakeholders' behaviors lead to a reduction in threats to biodiversity (or restoration)?

A study by Palao et al.<sup>75</sup> indicates an overall reduction in loss of forest cover in Cabayugan during the 1990s as compared to the 1980s. The authors attribute this to a reduction in swidden agriculture by indigenous communities in response to policies supporting community-based approaches to forest conservation. For example, policies were changed to support community-based approaches in the 1990s by granting Certificates of Ancestral Domain Claims and developing community management plans. NATRIPAL and community members' accounts during interviews confirm this trend.<sup>85-89</sup>

### *Adaptive management based on lessons learned*

NATRIPAL has applied the following lessons as it continues to adapt management of enterprise support:

- **Provide support to strengthen policies and policy enforcement.** NATRIPAL and its partners are working to ensure a robust Free, Prior, and Informed Consent (FPIC) process so that communities are fully aware of the impacts of mining and plantations within their ancestral domain claims and can make informed decisions.<sup>21,77</sup>



*Staff member Melinda Bacani assesses the quality of the honey processed in NATRIPAL's facility. NATRIPAL aggregates, processes, packages, and sells honey from various communities and pays collectors higher prices than they could get in local markets.*

- **Improve capacity to monitor threats.** Neither NATRIPAL nor indigenous peoples' associations have the funds and capacity to monitor threats within community-managed forests, especially trends over time. They continue to apply for funds for this purpose.<sup>21</sup>

## Does a reduction in threats (or restoration) lead to conservation?

Palao et al. indicated that forest cover within the community managed forests in Cabayugan has been maintained or improved since their establishment.<sup>75</sup> Interviews with the communities and NATRIPAL in 2017 confirm this claim for other community managed forests. Indigenous peoples' association members interviewed clearly associate improvement in rattan, almaciga resin, and wild honey harvests with conservation of the forest and acknowledge the need to further reduce threats.<sup>85-89</sup>

### *Adaptive management based on lessons learned*

NATRIPAL has applied the following lesson as it continues to adapt management of enterprise support:

- **Improve capacity to monitor forests and biodiversity.** NATRIPAL and the indigenous peoples' associations noted that they lack the necessary funds and capacity to monitor change in status of the community managed forests and the biodiversity within them and continue to seek support.<sup>25,85-89</sup>



## IV. WESTERN HIMALAYAS, NEPAL

### Essential Oils, Handmade Paper, and Charcoal Help Communities Conserve Their Forest

#### A. Overview

##### Implementing Partners

EnterpriseWorks/VITA (now part of Relief International)  
Asia Network for Sustainable Agriculture and Bioresources (ANSAB)

##### Other Key Partners

Aveda  
Himalayan Bio-Trade Limited  
Nepal Ministry of Forests and Soil Conservation  
Nepal District Forest Offices  
Federation of Community Forest Users Nepal  
Social Development Centre, Bajhang  
Dolpa Sarbangin Bikash Samaj, Dolpa  
Humla Conservation and Development Association  
Rural Development Group Program  
Rural Community Development Centre

##### The Site and Challenges

The forests of Nepal's western Himalayas are a global biodiversity hotspot.<sup>88,90</sup> However, the forests of the Humla,

#### ENTERPRISEWORKS/VITA AND ANSAB

EnterpriseWorks/VITA aims to empower the most vulnerable populations in fragile settings to address livelihood, education, health, and water, sanitation, and hygiene needs.

ANSAB seeks to implement community-based, enterprise-oriented solutions that conserve biodiversity and improve the livelihoods of the poorest of the poor while bolstering economic development and addressing climate change.

**USAID Support:** With USAID's BCN (1992-1998) and GCP (1999-2009) support, EnterpriseWorks/VITA and ANSAB piloted enterprise development and forest management in a few rural villages. This model has continued to replicate in many other regions of Nepal.



Bajhang, Jumla, Dolpa, and Mugu districts suffer from a number of threats. Many rare and endemic plants are overharvested and sold to traders. Unmanaged grazing, slash and burn farming, and unsustainable wood and fodder collection also impact the forest's flora.<sup>23, 89, 91-95</sup>

Population growth, unclear property rights, increasing market demand for non-timber forest products, and lack of other livelihood options further exacerbate threats to the forests.<sup>73</sup> Moreover, the region's rocky surfaces and extensive snow cover severely restrict opportunities for development.<sup>23, 89, 91-95</sup>

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"There was a history of working with non-timber forest products, so we were able to build on those same products to increase their value to the communities."

—Ann Koontz, *Relief International*

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Ann Koontz from Relief International and Bishma Subedi from ANSAB both described the challenges facing poorer communities in remote villages as they work to establish enterprises, including high transportation costs and lack of communications, which make it difficult to get products to outside markets. With few options and little leverage, communities are vulnerable to receiving low prices for the raw materials they provide to outside traders. Traders may encourage villagers to overharvest an area to the point that the product supply is depleted. Then traders move to another village.<sup>23, 89, 91-95</sup>

### The Partners and Approach

In 1992, EnterpriseWorks/VITA established a conservation enterprise program in the Humla district of the Himalayas with support from BCN. With a focus on both poverty alleviation and biodiversity conservation, the program launched the now autonomous ANSAB. USAID's GCP helped expand the conservation enterprise approach in 1999 to an additional five districts. EnterpriseWorks/VITA and ANSAB aimed to address livelihood needs by providing assistance to community members to gain resource tenure, develop enterprises linked to non-timber forest products, and establish market linkages for these products, including through Forest Stewardship Council certification.<sup>89, 92</sup>

One of these enterprises, Malika Handmade Paper, produces paper made from an understory shrub called lokta (*Daphne spp*). Koontz and Subedi explained that EnterpriseWorks/VITA and ANSAB helped this enterprise establish sustainable harvest rates by introducing block rotation harvest management and creating a village-level, first-stage lokta bark processing plant that increased revenue for collectors. EnterpriseWorks/VITA and ANSAB also helped develop market linkages by establishing a Kathmandu-based processing and marketing firm, Himalayan Bio-Trade Limited, which facilitated a long-term



*Enterprise members like Khadak Khadka derive increased benefits when they go from lower value activities, such as selling raw materials, to value added activities, such as turning materials into products like paper.*

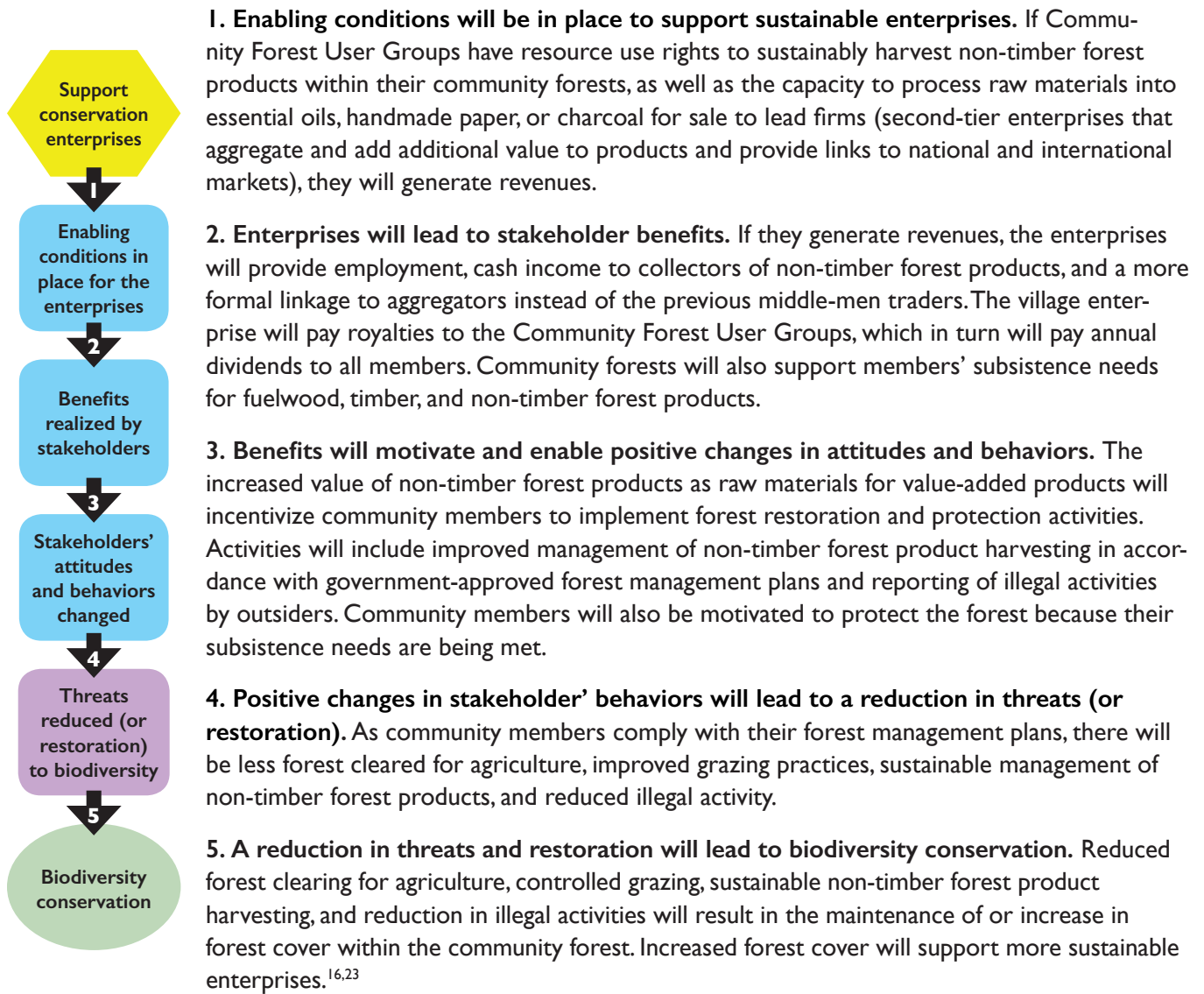
relationship with the international personal care products firm Aveda Corporation. These enterprise investments incentivized collectors and the community to protect the region’s natural capital.<sup>16,23</sup>

Subedi described that, after receiving support from GCP, ANSAB and local partners continued to expand the conservation enterprise model across Nepal. He noted that, “As of 2017, more than 1,000 community enterprises had been established, ranging from essential oils to paper processing to charcoal production using invasive species.”<sup>23</sup>

## B. Theory of Change

EnterpriseWorks/VITA and ANSAB’s assumptions for how their enterprise approach would lead to conservation outcomes are consistent with the generalized theory of change for supporting conservation enterprises:

EnterpriseWorks/VITA and ANSAB support Community Forest User Groups in establishing village-level enterprises. Their assumptions were:



## C. Outcomes and Assumptions in the Theory of Change

### Are the enabling conditions in place to support sustainable enterprises?

As a result of support from EnterpriseWorks/VITA, ANSAB, and other partners, the Community Forest User Groups established and maintained important enabling conditions for economically viable and sustainable conservation enterprises.

These enabling conditions include:

- More secure land and resource rights over large areas of natural forest to ensure communities have a sustainable source of high-quality non-timber forest products and the ability to control encroachment by non-members
- More supportive national policies that recognize non-timber forest products-based enterprises as important for global biodiversity conservation
- An alliance of Community Forest User Groups and of non-timber forest product stakeholders serving as a forum for information exchange and advocacy
- Capacity for sustainable management of forest resources through government-approved plans
- Enterprises registered with the government as private limited companies
- Enterprise constitutions requiring accountability, transparency, and representation of women and marginalized ethnic groups in governance, financial management, and benefit distribution
- Technical and managerial capacity, as well as the ability to train other community members
- Research and development on sustainable harvest practices for non-timber forest products
- Local organizations, recruited and fostered by ANSAB, providing ongoing, trusted, and practical support to Community Forest User Groups and their enterprises at the district level
- Capital from funders to invest in infrastructure construction (e.g., process plants) and equipment needed to make value-added products
- Business partnerships with firms to aggregate, add value, and market the products to national and international buyers
- Forest Stewardship Council, Wildlife Friendly, and organic certifications, which help to boost profits and gain access to long-term international buying relationships<sup>16,23,89,95-98</sup>

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“While communities need support from non-profit partners, the ultimate success and sustainability of their enterprises depends on communities having ownership, sound management, and market-based, private sector-driven approaches.”

—*Bhishma Subedi, Executive Director, ANSAB*

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### *Adaptive management based on lessons learned*

ANSAB has applied the following lessons as it continues to adapt management of enterprise support:

- **Manage timeline expectations.** Subedi described that, for ANSAB and its partners, increased participation and revenue require long-term vision and work to identify and recruit participants, build trust among authorities and stakeholders, and foster support for innovative ideas for enterprise and biodiversity protection. Enterprise participants also need help developing skills for bookkeeping, conflict management, and marketing. For example, the Malika handmade paper enterprise completed its business plan in 2000 and made its first profit in 2002.<sup>10,23,95</sup> The enterprise managers noted that, while the enterprise has been profitable for 20 years, funds for capital improvements are still not available at the levels needed for new equipment and infrastructure.<sup>98</sup>

- **Scale production to meet market demand.** ANSAB recognized that scaling production, by both securing larger community forests and aggregating production across multiple village level enterprises, is important to meet market demand. Scaling is also important for addressing competition with existing traders by drawing on a large and sustainable supply of inputs from collectors. Subedi describes that, in order to expand the business while maintaining profit margins, enterprise sites are situated near collection catchments and sustainable harvesting methods are closely monitored.<sup>23,96</sup>
- **Promote market-based enterprise development.** ANSAB and partners recognized that conservation enterprises need to be private sector driven and market based to ensure sustainability. For this reason, ANSAB helps enterprises register as businesses and promotes linkages with private sector aggregators and marketing services providers.<sup>23,99</sup>
- **Address succession.** ANSAB and partners recognized the need to continuously manage the natural cycle of leaders and enterprise managers retiring or moving on. To address this, ANSAB has included activities for recruiting and nurturing the next generation of leaders.<sup>23,95</sup>
- **Ensure community ownership and management.** ANSAB noted that enterprise success depends on the community having a strong sense of ownership and ensuring its members learn all aspects of enterprise management from the beginning.<sup>23,96</sup>
- **Add value to existing livelihood activities.** Koontz and Subedi noted that, instead of trying to introduce completely new livelihoods, adding value and improving existing livelihoods is more sustainable, less risky, and more palatable to Community Forest User Group members.<sup>10,23,89</sup>
- **Engage marketing services.** ANSAB noted that simply providing marketing information is not sufficient to result in successful marketing and sales. Instead, enterprises need committed intermediaries that provide quick and effective marketing services specific to the site context. In response, several conservation enterprises under this program have combined efforts, hiring competent national or regional marketing consultants, or jointly establishing strategic alliances with exporters.<sup>23,96</sup>
- **Ensure continuous exchange of views.** ANSAB found that facilitating the continuous exchange of views and concerns among different stakeholders helps enterprise participants and policymakers understand each other's priorities. ANSAB noted that it is effective to have local NGOs facilitate these meetings and encourage stakeholder involvement.<sup>23,89</sup>
- **Continuously monitor policies and maintain advocacy.** ANSAB, through its networks and government relationships, advocated for policies that advance social equity, economic advancement, and conservation.<sup>23</sup>

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“We used to go everywhere to harvest. Now we use the block system. Each year we harvest lokta bark from one block, and let it regenerate the following years. It has made it easier to harvest and there is more bark.”

—Karan Khadka, non-timber forest product collector from Kailash

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## Do the enterprises lead to benefits for stakeholders?

Benefits for community members have included both cash income and non-cash services as follows:

- **Collectors' income from non-timber forest products.** Enterprises purchase raw non-timber forest products and pay cash to collectors, who are a small subset of the total community members (estimated to be about 20% in Kailash where Malika Paper operates). Community members explained that lokta bark collectors typically have few other income opportunities.<sup>23,99</sup> Reports corroborate this for other enterprise sites.<sup>89,95</sup> They also explained that 500-550 collectors, mostly women, collect lokta bark for Malika Handmade Paper. Collectors use the additional income to pay school fees and buy goods and food they cannot grow, such as rice, salt, and oil.<sup>98,100</sup>

- **Processing plant employment.** Generally, only a small group of community members is directly employed by the enterprises.<sup>23,89</sup> For Malika Handmade Paper, nine people receive wages from direct employment. An additional eight to ten people occasionally work part time transporting products to market.<sup>98</sup>
- **Enterprise member dividends.** A percentage of annual profits is paid out as dividends to each Community Forest User Group member.<sup>89,95</sup> About 350 households (as members of the Community Forest User Group) own Malika Handmade Paper. However, they reported that dividend payments to date have not been significant.<sup>97</sup>
- **Community services.** The Community Forest User Groups in the western Himalayas receive revenue from product sales and royalties paid by enterprises at government-established rates.<sup>23</sup> Malika Handmade Paper pays the Community Forest User Group a fee based on the number of sheets of paper sold to buyers and the prescribed government royalty. Malika's Community Group reported using that income to pay expenses, (e.g., forest guards) and to provide community services.<sup>97</sup>

The Community Forest User Groups are required by their statutes to invest a portion of revenue in projects that benefit the community, such as health and education services, rural infrastructure, or livelihood support. The group in Kailash reported that they established a revolving loan fund, providing support for education and community infrastructure.<sup>97</sup> Other benefits reported by Community Forest User Group members include access to fuelwood, timber for house construction, and improved water flow from watershed springs.<sup>97,99,100</sup>

#### *Adaptive management based on lessons learned*

Partners have applied the following lesson as they continue to adapt management of enterprise support:

- **Address gender and equity issues early.** ANSAB described that the majority of villagers at enterprise sites live below the official poverty line and the poorest are generally collectors of non-timber forest products. During enterprise design, ANSAB and its partners identified the need to address gender and equity concerns, so that women, poor, and marginalized groups would receive fair benefits. To address this, EnterpriseWorks/VITA and ANSAB assured that all meetings and opportunities to engage in enterprises opportunities were open to all, both women and men, and regardless of economic status.<sup>16,23,95</sup> Koontz shared that, "We resisted a focus on only women, because that may not have fostered full community buy-in. Instead we tried to expose everyone, including women, to what was going on. We made opportunities open to everyone."



*Collectors who sell lokta bark to the enterprise are mostly women like Bhadra Kala Singh, who lack other opportunities to earn cash income. They use enterprise income to send their children to school and purchase food, clothing, and other items they cannot produce on their farms.*

## Do the benefits realized by stakeholders lead to positive changes in attitudes and behaviors?

In Kailash, community members perceive that forest protection is important because it provides inputs for the enterprise and other timber and non-timber forest products for subsistence and sales.<sup>97,98</sup>

ANSAB described that, prior to development of the enterprises, communities were aware that their forest use was destructive, but they lacked incentives to change. Development of the enterprise program, which complies with an established Forest Management Operational Plan, has resulted in a set of incentives including establishment of resource rights, increased capacity for sustainable harvesting, and equal or higher prices paid for non-timber forest products.<sup>23,94,95,97</sup>

ANSAB and community members in Kailash described the following changes to community practices resulting from establishment of the Community Forest User Groups and enterprises:

- Protection of the community forest from fire, illegal encroachment, overharvesting, and agricultural expansion
- Sustainable harvesting of non-timber forest products, in compliance with government-approved management plans
- Sustainable harvesting of timber for local use
- Enforcement of restrictions on grazing by sheep and goats
- Exclusion of unauthorized use by non-members. For instance, forest guards check unapproved cutting and encroachment and are authorized to impose punishments
- Expansion of forest areas under community management<sup>23,94-97</sup>

### *Adaptive management based on lessons learned*

Partners have applied the following lessons as they continue to adapt management of enterprise support:

- **Use a suite of strategic approaches.** ANSAB explained that Nepal has limited government resources to invest in law enforcement, necessitating complementary approaches to ensure sustainable use of forest resources. In addition to enforcement, ANSAB and its partners use a suite of approaches to create strong incentives for community conservation of forest biodiversity. These include awareness building and implementation of community forestry and non-timber forest products-based enterprise development.<sup>23,89</sup>
- **Ensure that forest management and enterprise development plans work together.** ANSAB explained that it helps communities develop and implement enterprise plans that the fact that cash and non-cash benefits are directly dependent on the health and productive capacity of well-managed forests.<sup>23,89,97</sup>
- **Remember that minor benefits matter.** ANSAB finds that even small income gains, when perceived as steady from year to year and/or provided at critical seasonal times provide meaningful incentives for communities to conserve biodiversity. Even if they do not receive cash income, Community Forest User Group members who rely on the forest for subsistence greatly value improved fuelwood management, timber for housing, and fodder management support.<sup>23,94-97</sup>
- **Carefully manage benefit distribution.** ANSAB noted that, when community members feel that benefits are not distributed fairly, community members have less incentive to protect natural resources. Therefore, resource use plans should incorporate the subsistence and commercial needs of all community members. ANSAB works with communities to develop their Forest Management Operational Plans with consideration for who needs access to forest resources and for what purposes. The plans also ensure that the most vulnerable members of the communities have access to needed resources.<sup>23,89</sup>

## Do positive changes in stakeholders' behaviors lead to a reduction in threats to biodiversity (or restoration)?

Community members in Kailash reported that direct threats to biodiversity and forest conservation have been reduced within their community forests, even though the population has grown substantially. Community members described how they have moved from volunteer patrolling on a rotational system to paid forest guards to improve their effectiveness. They noted reductions in overharvesting of non-timber forest products and incidents of fire, agriculture expansion, uncontrolled grazing, and timber poaching. Given that government capacity and resources for monitoring and enforcement have not significantly improved, they attributed overall threat reduction to improved community forest management and enforcement.<sup>23,95,97</sup>

### *Adaptive management based on lessons learned*

Partners have applied the following lesson as they continue to adapt management of enterprise support:

- **Develop capacity at local level to monitor threats.** A 2003 USAID evaluation recommended augmenting community biological monitoring efforts with the use of a threat monitoring tool to prioritize threats, devise activities to counter the threats, and monitor progress in threat abatement.<sup>95</sup> This monitoring tool, developed under BCN, is used by ANSAB members who noted that it allows communities to actively participate in threat assessment and, as a result, positions them to take control of threat abatement activities.<sup>23,89</sup> ANSAB continues to work with communities to build their capacity for threat monitoring.<sup>23</sup>



*Community members noted that, in addition to increasing access to products for subsistence and cash income, improved forest conditions have also resulted in a cleaner and more abundant water supply.*

## Does a reduction in threats (or restoration) lead to conservation?

Community members in Kailash described that community forest cover and condition has improved over time and that they observe more wildlife. Returning to the site in 2017, Koontz observed that the forest area and boundary were unchanged from the time of enterprise inception.<sup>16</sup> Stakeholders attributed conservation to community management and enforcement of the forest management plan, as there has been minimal or no government monitoring and enforcement.<sup>97</sup>

### *Adaptive management based on lessons learned*

Partners have applied the following lesson as they continue to adapt management of enterprise support:

- **Use Forest Stewardship Council to support ongoing monitoring of biodiversity.** While ANSAB and its partners do not have the capacity to monitor the change in status of the forest and its biodiversity, they reported that acquiring and maintaining Forest Stewardship Council certification has allowed for third-party monitoring. ANSAB reported that annual Forest Stewardship Council renewal is an indication that communities are practicing improved forest management and adhering to biodiversity standards.<sup>23</sup>



**V. CHITWAN, NEPAL**  
Community Forests and Ecotourism  
Reduce Threats to National Park

## A. Overview

### Implementing Partner

National Trust for Nature Conservation (NTNC)

### Other Key Partners

World Wildlife Fund-United States (WWF-US)

District Forest Office

Chitwan National Park

### The Site and Challenge

Nepal's Chitwan National Park is one of the richest areas of biodiversity in Asia, attracting thousands of tourists to see its rhinos, tigers, crocodiles, and hundreds of bird species.<sup>93,101</sup> However, when established in 1973, the park did not directly benefit the millions of people living in and around it. In fact, local communities saw the park as a cause of suffering. The park's valuable resources were off limits, few locals found employment in the park or received tourism revenue, and park wildlife sometimes raided locals' crops.<sup>92,93</sup> The government exacerbated the problem by creating policies encouraging migration to the area and creating incentives to subdivide land into smaller parcels to sell, which left each household with even less access to resources. Indigenous groups did not fare any better. They were relocated from park areas where

## NATIONAL TRUST FOR NATURE CONSERVATION

The mission of NTNC is to promote, conserve, and manage nature in all its diversity. Since 1994, NTNC has helped establish more than 60 Community Forest User Groups. NTNC assists them with forest management and associated enterprises.

**USAID Support:** USAID funded NTNC's conservation enterprise work under BCN from 1994-1997.



they depended on forest resources to small parcels of land outside the park that could not meet their needs for thatch, fuelwood, timber, and fodder. Ultimately, local community members were driven to collect park resources illegally.<sup>20,102-104</sup>

By the 1980s, threats to the park grew worse. Weak oversight and the continued subsistence needs of local communities drove overgrazing and unsustainable resource exploitation.<sup>92,108</sup> NTNC and the community began repairing the damage in 1989 when they launched a reforestation project intended to reduce long-term pressure on fuelwood harvesting and extend the park's habitat for wildlife, especially the one-horned rhinoceros (*Rhinoceros unicornis*). In the first year, they planted 32 hectares of new forest, which was supplemented the next year with 20 additional hectares of fast-growing indigenous tree and fodder species.

### The Partners and Approach

In addition to reforestation, NTNC believed that if communities were given responsibility for managing their own forests, they would have less need to illegally collect resources from the park.<sup>20,91</sup> Therefore, in 1993, NTNC and its partners began helping the park establish a Buffer Zone Management Program and grant Community Forest User Groups the legal rights to own and manage forests in this zone.

The first Community Forest User Group was established in 1995 to own and manage the 215-hectare Baghmara forest, a once dense and famous hunting ground for tigers. Its name derives from *bagha* meaning 'tiger' and *mara* meaning 'to kill.'<sup>91</sup> Over time, reforestation resulting from better community management encouraged wildlife to move into the buffer zone, opening new opportunities for ecotourism. This led to the establishment of a second Community Forest User Group in the Kumrose community. Both Community Forest User Groups launched ecotourism activities, such as elephant rides and jungle walks, and each established a small lodge with two double rooms.



*Buffer Zone Community Forestry User Groups often use enterprise revenue to support community services, such as funding for schools and scholarships for students. Community services are a way to spread benefits more widely.*

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"Thirty-five years ago, we depended on the park's forest for bushmeat, firewood, timber, thatch grasses, and livestock bedding materials. Conflict with wild animals was high. Now people can get what they need from the community forest. We have measures, like fences and walls, and we can compensate the losses done with income from our enterprises."

*—B.P. Chaudhari, Chairman, Baghmara Buffer Zone Community Forest User Group*

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These enterprises generated revenues within their first year of operation,<sup>92</sup> and communities added services for tourists such as canoe and jeep rides.<sup>20,103,104,105</sup> Today, the buffer zone community forests provide riverine forest habitat for Bengal tiger (*Panthera tigris tigris*), one-horned rhinoceros, three species of deer, two species of crocodile, and about 190 species of birds. Ecotourism has steadily increased in both buffer zone community forests, and the Community Forest User Groups now provide significant benefits to their communities.<sup>20,103-105</sup>

## B. Theory of Change

NTNC’s assumptions for how their enterprise approach would lead to conservation outcomes are consistent with the generalized theory of change for supporting conservation enterprises:

NTNC supports Buffer Zone Community Forest User Groups in obtaining resource rights and operating ecotourism enterprises within their community forests. Their assumptions were:



## C. Outcomes and Assumptions in the Theory of Change

### Are the enabling conditions in place to support sustainable enterprises?

As a result of support from NTNC and other partners, the Buffer Zone Community Forest User Groups established and maintained important enabling conditions to make their ecotourism enterprises economically viable and sustainable.

These enabling conditions include:

- Secure community land and resource rights over large areas of restored and natural forest in the buffer zone of the park
- Accountability, transparency, and representation of women and marginalized ethnic groups in governance, financial management, and benefit distribution
- Business partnerships with hotels and travel agencies to ensure a strong market for tourism services
- An alliance of Buffer Zone Community Forest User Groups to exchange information and advocate for their needs with the park
- Capital from funders for constructing infrastructure, such as trails and *machaans* (small lodges)
- Capacity to sustainably manage forest resources through Forest Management Operational Plans
- Diversification of ecotourism services to improve sustainability and widen benefit distribution
- Profits that have steadily increased over the years
- Veterinary care, provided at no cost by NTNC, and improved treatment methods for elephants that provide rides to tourists<sup>20,103,104</sup>



*To motivate the Musahars' support for conservation, the Buffer Zone Community Forest User Groups have provided them with non-cash benefits such as infrastructure improvements and access to community forests to meet fuelwood needs.*

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*"We tolerate the loss from wild animals because we see the benefits they bring us."*

*—Hira Bahadur Gurung, former chair, Kumrose Community Forest User Group*

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The Buffer Zone Community Forest User Groups also benefit from the marketing activities of the park, hotels, and tour agencies. Elephant owners, who are often hotel owners, were once allowed to provide rides in the park, but can now only operate in buffer zone community forests with user groups charging each tourist a tariff to enter. This is what enabled the two user groups to generate revenues within the first year of operation. These revenues have increased at a steady pace through tourism growth and diversification of services offered.<sup>20,102-104</sup>

### Adaptive management based on lessons learned

NTNC has applied the following lessons as it continues to adapt management of enterprise support:

- **Provide long-term support for governance.** Initially, community mistrust of government and frequent changes in government leadership hindered passage and acceptance of buffer zone bylaws.<sup>20,73</sup> The Maoist insurgency between 1996 and 2000 was particularly destabilizing, eroding the trust of user group members and further weakening efforts to establish enterprise governance. Because NTNC views sound governance as critical for the sustainability of both the Buffer Zone Community Forest User Groups and their enterprises, they have provided long-term technical assistance in building governance capacity, which today is relatively strong.<sup>20</sup>
- **Promote market-based enterprise development.** NTNC has encouraged Buffer Zone Community Forest User Groups to diversify their enterprise types to improve sustainability as markets change. For



*The community forests provide fodder and other forest products to Buffer Zone Community Forest User Group members. NTNC and park authorities reported that meeting these needs has reduced pressure on park resources.*

example, as tourist interest in elephant rides wanes due to welfare concerns, providing other types of ecotourism will be key.<sup>20</sup>

### Do the enterprises lead to benefits for stakeholders?

From the earliest years of the Baghmara Community Forest enterprise, communities have recognized the program's benefits. Just two years after the Buffer Zone Community Forest User Group was established, a survey of its members found most respondents confirming that the community forest was helping to buffer crop land from wildlife damage and decrease crop depredation.<sup>92</sup>

Today, ecotourism enterprises generate significant income and non-cash benefits to Buffer Zone Community Forest User Group members, including:

- **Employment:** Some members receive wages from direct employment as tourism operators.
- **Dividends:** Generally, the user groups pay a small percentage of annual profits as dividends to each member.
- **Community services:** User groups have internal statutes that require investing a portion of net revenue in projects that benefit the community, such as health and education services, infrastructure, and livelihood support. They have also established a revolving loan fund.<sup>20,103-105</sup>

Buffer Zone Community Forest User Groups have also invested in wildlife conflict mitigation measures, such as trenches, fences, and walls around the community forests. In addition, they compensate families for wildlife attacks and flood and wildlife damage. Park revenue sharing, which distributes 30% of tourism income generated from the park, provides additional funding for community services. For example, most member households have

received toilet and biogas installations. The community forests also provide fuelwood and fodder for members who are dependent on these resources.<sup>20,102-104</sup>

### **Adaptive management based on lessons learned**

NTNC has applied the following lessons as it continues to adapt management of enterprise support:

- **Support sound business partnerships.**

Soon after establishment of the ecotourism enterprises, conflict arose between the Buffer Zone Community Forest User Groups and the hoteliers regarding the tariff amount tourists were charged to enter the community forest.<sup>73</sup> NTNC staff described that they helped to mediate a solution and have continued to play the role of mediator as needed to facilitate the success of the revenue-generating and benefit-sharing aspects of the enterprises.<sup>20</sup>

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“When the enterprise is linked to conservation, it encourages people to conserve those resources and is the easiest means of teaching the values of biodiversity conservation.”

—Arun Rijal and project staff, Nepal Conservation Research and Training Center of the King Mahendra Trust for Nature Conservation (now NTNC)

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- **Support equitable benefit distribution.** Marginalized ethnic groups, such as the Bote, Tharu, and Musahar peoples, have traditionally been forest-dwellers dependent on natural resources for subsistence. To ensure their needs are met, the government and Buffer Zone Community Forestry User Groups allow members of these ethnic groups to collect a regulated amount of natural resources from the park and community forests.<sup>73,102,104-106</sup>
- **Test and adapt or reject new benefit schemes.** Community Forest User Groups have also provided non-cash benefits to the Musahar, such as cookstoves, sewing classes, or, in one case, a fish pond. Unfortunately, these services have not been effective at improving the livelihood status of the Musahar.<sup>106,107</sup> With NTNC support, the user groups continue to engage the Musahar in decisions regarding the distribution of enterprise benefits and discussions on how to improve their livelihoods.<sup>20,102-106</sup>

### **Do the benefits realized by the stakeholders lead to positive changes in attitudes and behaviors?**

While some community members were not initially supportive of the community forests, their attitudes changed as restoration and an increase in resident wildlife began generating significant tourism revenue.<sup>20,102,108</sup> According to Kumrose Village Development Committee Chairman Krishna Lal Chaudhary, “The local leadership was criticized by people when it was first decided that a reforestation program was to be implemented in our village. People were afraid that wild animals from the nearby Royal Chitwan National Park would make this patch of forest their home and cause more trouble to local farmers.”<sup>108</sup>

However, as enterprise benefits grew, so did positive community attitudes toward conservation. In the first two years after establishment of the community forest, the number of people illegally entering the park to collect firewood and fodder decreased by almost 30%. Reporting poachers and seeking assistance from Chitwan National Park to relocate troublesome rogue elephants or marauding leopards became the new norm. Additionally, communities reported feeling a sense of stewardship over endangered species and habitat conservation.<sup>73,92</sup>

BCN reported the following changes in household activities soon after establishment of the enterprise program:

- Many livestock were switched from forest grazing to stall feeding.
- Many households began collecting fodder from the community forest or from their cropland, and very few continued to collect fodder from the park.

- Household demand for firewood was being met by resources from the community forest, with very few people still collecting from the park.
- Many households were actively participating in the community plantation programs and had planted trees on their private lands to meet fodder and firewood needs.<sup>73</sup>

As livelihoods continued to improve over time, community demand for park resources declined significantly. Livelihoods were further enhanced when the Community Forest User Groups distributed biogas cookstoves, which had dual benefits: (1) improving attitudes and motivating compliance with park regulations and (2) reducing the need to collect fuelwood from the park. Using the community forest to meet fuelwood and fodder needs also reduced demand for park resources.<sup>20,108</sup>

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“It used to be very easy for the poachers. They could kill wildlife at the edge of the park, even outside. Now the community members drive the wildlife back into the park and report incidents to the park authorities.”

—Ram Chandra Kandel, Chief Warden, Chitwan National Park

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NTNC described how, as enterprise benefits accrued, communities shifted other practices to support conservation outcomes. For example, use of wood for construction declined, replaced by concrete.

Farmers replaced free-roaming grazing of larger livestock herds with stall-feeding of a smaller number of animals to meet household needs. As the park and the Buffer Zone Community Forest User Groups implemented human-wildlife conflict mitigation measures, such as perimeter walls, attitudes towards conservation improved. Additionally, since their establishment, Buffer Zone Community Forest User Groups have reinvested 30-50% of enterprise revenues in forest restoration and management.<sup>20,102-104</sup>

### **Adaptive management based on lessons learned**

Partners have applied the following lesson as they continue to adapt management of enterprise support:

- **Scale enterprises for more threat reduction.** As the population around the Baghmara and Kumrose community forests increases, the user groups recognize the need to scale up the enterprises to provide benefits for more community members. Failure to do so will reduce the per-individual or per-household benefit to a level that may no longer incentivize the behavior change needed for forest conservation.<sup>20,73,102-104</sup>

### **Do positive changes in stakeholders’ behaviors lead to a reduction in threats to biodiversity (or restoration)?**

The priority in establishing the Buffer Zone Community Forest User Groups was to reduce threats to Chitwan National Park. The program was designed to: (1) shift resource use from the park to the community forest; (2) reduce the need for natural resources by providing benefits, such as biogas and cookstoves, to the community that could meet those needs; and (3) reduce human-wildlife conflict through measures such as perimeter fences and walls. Chitwan’s Chief Park Warden Ram Chandra Kandel reported that key threats to wildlife, such as poaching, and to the forest, such as wood and fodder collection, have substantially decreased in the park. He attributed some of this decrease to community forests and enterprises having reduced dependency on park resources. Chandra Kandel also noted the effectiveness of law enforcement, awareness building, and park revenue sharing with communities as important factors in reducing threats to the park.<sup>101</sup>

### Adaptive management based on lessons learned

NTNC has applied the following lesson as it continues to adapt management of enterprise support:

- **Employ a suite of strategic approaches.** NTNC and park managers recognize that building synergies among the suite of strategic approaches aimed at reducing threats can improve conservation effectiveness. For example, the park can target revenue sharing toward expanding participation in Community Forest User Group enterprises to increase distribution of benefits and incentives for conservation among more community members.<sup>20,101</sup>

### Does a reduction in threats (or restoration) lead to conservation?

During the initial USAID three-year funding period, monitoring showed gradual increases in the number of different species, including birds, rhinoceros, tigers, crocodiles, and ungulates. This was attributed, in part, to the additional habitat provided by community forests.<sup>73,92</sup> Subsequent surveys of the park, conducted every three to five years in the park, showed tigers and their prey, as well as rhinoceros, elephant, and other wildlife populations, continuing to increase steadily (with the exception of the Maoist insurgency period from 1996-2000). Moreover, studies indicate that forest cover has increased in the buffer zone community forests and in Baghmara, specifically.<sup>109</sup>

NTNC and the Chief Warden of Chitwan National Park attribute some of the increase in wildlife populations to the Buffer Zone Management Program but acknowledge that it is also the result of various strategic approaches working in coordination.<sup>20,101</sup> Community Forest User Group leaders interviewed clearly related the success of their ecotourism enterprises with conservation of park wildlife.<sup>102-104</sup>

### Adaptive management based on lessons learned

Partners have applied the following lesson as they continue to adapt management of enterprise support:

- **Learn more about the effect of benefits.** NTNC has identified the need to better understand the impact of their collective endeavors, the community forests, and the Community Forest User Group enterprises on threat reduction and biodiversity conservation. They noted the need for studies comparing incidence of threats, condition of the forest, and status of wildlife populations across areas within the buffer zone and adjacent park land that are, and are not yet, providing benefits from community forests to surrounding communities.<sup>20</sup>



*With support from NTNC, communities have developed ecotourism enterprises whose high-value benefits are directly linked to protection of wildlife and their habitat. Each tourist pays a tariff to enter the community forest to take elephant rides and see wildlife such as rhinoceros.*



## VI. BWINDI-MGAHINGA AREA, UGANDA

### Communities, Tourism, Parks, and Gorillas Share the Benefits

#### A. Overview

##### Implementing Partner

International Gorilla Conservation Programme (IGCP)

##### Other Key Partners

Uganda Wildlife Authority  
African Wildlife Foundation

##### The Site and Challenge

The Bwindi-Mgahinga Area in southwestern Uganda, home to approximately 880 critically endangered mountain gorillas (*Gorilla beringei beringei*), includes Bwindi Impenetrable National Park and Mgahinga Gorilla National Park. Direct threats to gorillas include poorly managed tourism, disease, and disturbance to their forest habitat by fire for honey collection and clearing for agriculture, poaching for bushmeat, food gathering, and wood collection for firewood, poles, and stakes.<sup>19,110-113</sup>

#### INTERNATIONAL GORILLA CONSERVATION PROGRAMME

The mission of IGCP is to conserve critically endangered mountain gorillas and their habitat by partnering with key stakeholders and contributing to sustainable livelihood development. IGCP was formed in 1991 as a coalition program and currently consists of Fauna & Flora International and WWF.

**USAID Support:** USAID supported the IGCP through its funding to the African Wildlife Foundation (2002-2005) for the Conservation of AfroMontane Forest and Mountain Gorillas in a Landscape Context project. Since this project, IGCP has continued to implement its conservation enterprise approach in the Virunga landscape.



When the government established the parks in the early 1990s, they displaced people from the land and habituated some groups of gorillas to tourism. The levels of timber harvesting and illegal activities dropped in core park areas, and the overall level of threats appears to have remained relatively constant since.<sup>26,114,115</sup>

However, threats along the edges of the park persisted.

Fueled by resentment over crop raiding by wildlife in buffer areas and poverty exacerbated by displacement from park land, local farmers continued illegal activities, especially poaching for bushmeat.<sup>110,115</sup> The

perception that park authorities and local governments were unwilling to address crop raiding, despite the magnitude of the problem, increased local farmers' negative attitudes. In some cases, it led to violent

attacks on park staff. Those experiencing conflict with gorillas perceived that others were making money through gorilla trekking, which enhanced negative sentiment.<sup>19,26,116</sup>

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“The day external partners are no longer in existence, it will not be because we have failed, but because we have successfully built the capacity of our government and community partners to manage without us.”

—Sam Mwandha, African Wildlife Foundation

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### The Partners and Approach

IGCP and its partners have implemented an enterprise approach to conservation for 26 years. They focus on enhancing the incomes of local people by diversifying livelihoods into tourism and other sustainable enterprises, which provides an alternative to illegal resource use or encroachment on the park.<sup>16,113,116</sup>

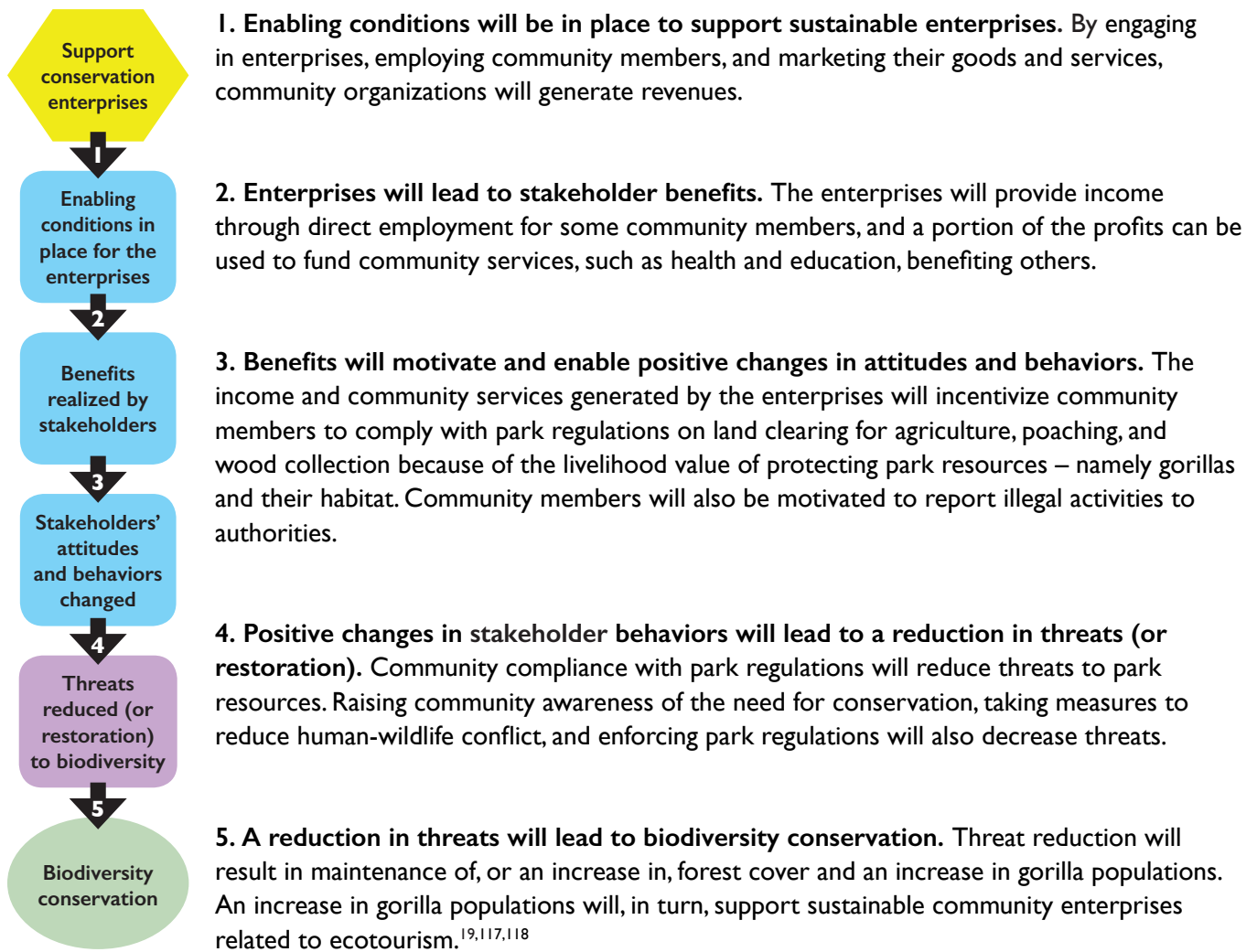
The community organizations and their enterprises supported by IGCP include:

- **Nkuringo Community Conservation and Development Foundation** owns a high-end ecolodge called Clouds Mountain Gorilla Lodge, which is managed by an outside concession on the edge of Bwindi National Park in Nkuringo. The Foundation also runs the Buniga Forest Walk with members of the Batwa community.
- **Buhoma Mukono Community Development Association** owns and manages a lower-end lodge, Buhoma Community Rest Camp, on the edge of Bwindi National Park in Buhoma. The Association also offers a guided community cultural walk, including members of the Batwa community.
- **Nkuringo Beekeepers Multipurpose Cooperative Society** is a group of beekeepers with a honey refinery that is aimed at reforming poachers.
- **Nkuringo Women Artisans Group** is a craft-making group that produces baskets, paper beads, and wood carvings, among other things.
- **Gitenderi Mushroom Growers** is a group engaged in mushroom cultivation.
- **Batwa Trail Guides at Mgahinga Gorilla National Park** is a group of members of the Batwa community that offer a cultural walk in Mgahinga Gorilla National Park.

## B. Theory of Change

IGCP's assumptions for how their enterprise approach would lead to conservation outcomes are consistent with the generalized theory of change for supporting conservation enterprises:

IGCP supports community organizations in establishing and sustaining various enterprises related to tourism. Their assumptions were:



## C. Outcomes and Assumptions in the Theory of Change

### Are the enabling conditions in place to support sustainable enterprises?

With support from IGCP and other partners, the community organizations were established, and they have sustained their own enterprises. Important enabling conditions have included the following:

- Strong national frameworks, including the National Environment Action Plan, which supports community conservation and the Uganda Wildlife Authority's mission to manage parks "in partnership with neighboring communities"
- Capital from funders for equipment and infrastructure to support establishment of lodges, trails, the honey refinery, and mushroom growing chambers
- Capacity to produce marketable goods and services

- Accountability, transparency, and representation of women and marginalized ethnic groups in governance, financial management, and benefit distribution
- Business partnerships to ensure a strong market for tourism services, such as lodges and trails, and goods, such as honey, crafts, and mushrooms
- Strong profit potential steadily increasing over the years<sup>19, 113, 116, 117</sup>

### *Adaptive management based on lessons learned*

IGCP has applied the following lessons as it continues to adapt management of enterprise support:

- **Make skill-building an ongoing investment.** The final evaluation of the USAID activity Conservation of Afro-Montane Forest and Mountain Gorillas in a Landscape Context noted that community organizations had some initial difficulty providing quality tourism services and products. After receiving additional training, they improved their skills and, in some cases, even provided training to other members of the group.<sup>113</sup>

IGCP views this as a positive indication of enterprise sustainability.<sup>19</sup>

- **Continue to foster sound governance.** IGCP staff stressed that building strong governance systems is a challenge, one that generally requires a longer-term investment. IGCP continues to help ensure that community organizations are accountable to their members. Governance skills have become increasingly critical as enterprise revenues grow and the importance of transparency in benefit distribution increases.<sup>19, 116</sup>



*Machate Emanuel leads a tour of the Buniga Community Forest Trail in Nkuringo, Uganda. He demonstrates for tourists how the Batwa lived in the forest, as well as their singing and dancing traditions.*

- **Create links to the private sector to enhance capacity.** Because neither IGCP nor the local organizations have the complete set of skills necessary to establish profitable and sustainable business ventures, IGCP recognizes that developing and strengthening business partnerships between enterprises and the private sector is important. Partnerships improve product development, advertising, access to markets, and sales.<sup>19, 113, 116</sup>

### **Do the enterprises lead to benefits for stakeholders?**

Only a few enterprises actually accrued revenues during the initial three-year activity supported by USAID.<sup>113</sup> The enterprise benefits generated in the years since, although not formally measured, include the following:

- **Employment.** Jobs are important, but limited to relatively few community members, whether through the enterprises initiated by IGCP or through independent, supporting enterprises such as lodging and trail guiding.



USAID supported development of the high-end Clouds Mountain Gorilla Lodge in Nkuringo, Uganda, owned by Nkuringo Community Conservation and Development Foundation and run by a concessionaire, Wildplaces, that manages several lodges in Uganda.

- **Sales.** Income from the sale of products such as honey and crafts is a more widespread than for other enterprises.
- **Community services.** The majority of members benefit from community services funded by enterprise revenue, including improvements to infrastructure, healthcare, and education in the form of schools and scholarships.<sup>19,119-124</sup>

Enterprise benefits do not consistently reach the poorest community members (those who bear the greatest costs of conservation, including restricted access to resources and crop raiding by gorillas and other wildlife in the buffer areas of the park).<sup>19,110,116,125,126</sup>

### Adaptive management based on lessons learned

IGCP has applied the following lesson as it continues to adapt management of enterprise support:

- **Involve stakeholders from the beginning.** Surveys conducted by the International Institute for Environment and Development around the parks found that individuals who were more involved in design and implementation of an integrated conservation and development intervention describe the program as successful from a governance perspective. Individuals who felt they were not involved in design and implementation almost always reported that they did not benefit or described the intervention as failing.<sup>111</sup> Based on these findings and their own experience, IGCP engages a broad group of stakeholders in the design of enterprises, including their governance systems and benefit distribution mechanisms.<sup>19</sup>

### Do the benefits realized by the stakeholders lead to positive changes in attitudes and behaviors?

IGCP and its partners defined an explicit logic for how they expected benefits to motivate attitude and behavior change:

- **Link benefits to resources.** Beneficiaries will recognize the need to sustainably manage park resources in order for the enterprises to succeed (*Example:* Gorillas and their habitat are necessary for successful tourism-related enterprises and must be protected).
- **De-link benefits from less sustainable behaviors.** Beneficiaries will substitute income from unsustainable collection and sale of park resources with income from enterprises that are not linked to resources (*Example:* Community members can make more income from mushroom cultivation or honey production than from collecting and selling bushmeat from the park).
- **Make benefits contingent on rules.** Compliance with rules and regulations regarding sustainable resource will be a condition for receiving benefits.<sup>116</sup>

In interviews conducted in 2011, IGCP heard repeatedly from community members that relationships between communities and authorities at both parks were good, with the majority having positive attitudes towards the park. Uganda Wildlife Authority staff described the parks as the most stable in Uganda in terms of community-park relations. Staff stated, “Ten years ago, rangers, and even IGCP staff, would be called baboons (or worse) by local people and would feel threatened if their vehicle broke down in the field. Now, they feel safe and are confident they would be helped. This is a remarkable transformation.”<sup>116</sup>

IGCP staff, park authorities, and community members attributed these positive changes in attitudes and behaviors in part to benefits from the enterprises.<sup>19, 114, 115, 121, 123</sup> IGCP and the park staff recognized, however, that there are a variety of strategic approaches to conservation being implemented in these communities and that not all change can be solely attributed to enterprise benefits.<sup>19, 114, 115</sup>

### **Adaptive management based on lessons learned**

IGCP has applied the following lessons as it continues to adapt management of enterprise support:

- **Do not rely on income substitution alone to change behaviors.** IGCP has found that supporting enterprises does not reduce demand for park resources by only substituting an alternative income stream from an enterprise for the illegal threat-inducing one. Positive behavior change appears to be less the result of direct substitution and more the result of general positive attitudes created by enterprise benefits (cash and non-cash) and an understanding that benefits are linked to a conservation program.<sup>19, 116</sup>

IGCP found that this substitution logic is faulty because it falsely assumes that people: (1) have a finite need for certain resources that come from the parks, such as meat and bamboo poles; (2) can satisfy their needs from somewhere outside the parks, whether producing resources themselves or purchasing them in the market; and/or (3) will allocate their time away from collecting in-park resources.<sup>19, 116</sup>

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“The reality is that some of these enterprises take time for transformation. Sometimes in five years you may have some outcomes, but most likely not conservation. It takes time to understand the cause and effect relationships and to get the right incentives and conditions in place.”

—Steven Asuma, former IGCP staff

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*Simeo Ntawuruhuga received a cow from the Nkuringo Community Conservation and Development Foundation. He then bred the cow and passed the first calf on to the next program participant. The community association uses this strategy to complement the enterprise approach and target benefits to those who pay the greatest cost of wildlife conflict because of the park.*

Another reason IGCP has been cautious with substitution logic is that, in the communities around the parks, the relationship between poverty and forest use is not well understood. For example, the demand for forest products such as fuelwood and meat could potentially grow as the poorest community members increase their income through enterprises.<sup>19,116</sup>

- **Ensure compliance with park regulations when enterprise benefits are not linked to gorilla conservation.** In the case of tourism-related enterprises, such as lodging and trails, benefits are directly linked to supporting conservation of gorillas and their habitat; therefore, benefits incentivize compliance with park regulations. However, some conservation enterprises supported by IGCP, such as beekeeping and mushroom cultivation, have little or no direct relation to tourism and gorilla conservation. In these cases, IGCP has learned they need to: (1) create a contractual understanding with beneficiaries that enterprise support is contingent upon compliance with park regulations and (2) ensure mechanisms for tracking and enforcing compliance.<sup>19,116</sup>
- **Take measures to deliberately target the poorest since they bear the greatest costs of conservation.** Wealthier community members have generally benefited more than poorer members, creating resentment. As a result, the poorest continue unauthorized resource use, especially bushmeat hunting and collection of forest wood for construction materials.<sup>110,111,116,127</sup> Crop raiding by wildlife and prohibitions on access to fuelwood, building poles, and other forest resources exacerbate these negative behaviors.<sup>111</sup> Another challenge is that poor and marginalized groups lack assets required to access new enterprise opportunities. Assets include social capital (e.g., status and networks), human capital (e.g., education and skills), physical capital (e.g., land and buildings), and/or financial capital (e.g., cash and access to credit). IGCP supports community organizations in taking additional measures to deliberately ensure that enterprise participation and benefits reach the poorest community members, including helping to reduce conflict with park wildlife.<sup>19,116,127,128</sup>

## Box 2. Sustaining Conservation Achievements

A study by Blomley et al.<sup>26</sup> describes that sustaining conservation achievements requires:

- Rich collaboration between partners, and relationships between external organizations, which develops and matures over time
- Strong mutual trust between NGOs and government partners such as the Uganda Wildlife Authority and local governments
- Deep understanding of the local context to give partners the opportunity to develop and adjust their strategies to meet local priorities.

## Do positive changes in stakeholders' behaviors lead to a reduction in threats to biodiversity (or restoration)?

Park authorities reported that incidents of threats to the parks have steadily decreased over time. They believe that positive attitude and behavior changes resulting from awareness building and livelihood support have increased community cooperation, thereby reducing the cost of enforcement.<sup>114,115</sup> It is difficult to attribute threat reduction solely to behavior changes among enterprise participants, but IGCP emphasizes that long-term enterprise sustainability has played a role in nurturing the community cooperation that contributes to threat reduction.<sup>19</sup>

Although threats have been reduced overall, assessments show that bushmeat remains highly desired by local people.<sup>111,128</sup> Uganda Wildlife Authority confirms that bushmeat hunting with snares remains the top threat to gorillas.<sup>114,115</sup> In past reviews, the following factors are described as contributing to the lack of progress in addressing poaching:

- Challenges in identifying poachers as a group, analyzing their reasons for hunting, or approaching them as one of the key threat-inducers<sup>113</sup>

- Ineffectiveness and limited reach of park ranger activity, as reported by communities<sup>110</sup>
- Reduced incentive and sense of obligation to report illegal activities given rangers' poor performance dealing with specific cases<sup>110</sup>
- Fear of reprisal in reporting neighbors, relatives, or other community members<sup>110</sup>
- Poverty attributed to the parks, such as crop raiding and loss of access to forest resources such as meat and firewood, prompting illegal subsistence hunting<sup>111</sup>
- Resentment that benefits from the parks, most notably tourism revenue sharing and employment, are not reaching those suffering the most from human-wildlife conflict<sup>111</sup>

### *Adaptive management based on lessons learned*

IGCP has applied the following lessons as it continues to adapt management of enterprise support:

- **Plan for a longer timeframe to reduce threats.** Various assessments show that it has taken much longer than expected to facilitate the establishment of robust, sustainable, community-run enterprises, let alone achieve the magnitude of attitude and behavior change needed to reduce threats to the parks.<sup>110,113,116</sup> Although community cooperation with park authorities has improved, it takes many years to generate community benefits, build trust, scale the enterprises, and create sufficient incentives to reduce illegal activities.<sup>19,110</sup>

- **Do not use the enforcement approach alone.** IGCP emphasizes that focusing exclusively on law enforcement interventions to achieve conservation outcomes alienates key stakeholder groups. Those particularly alienated are the poorest community members who depend most on protected resources for their livelihoods, do not have access to alternatives, continue to experience wildlife conflict, and/or are most resentful of the park IGCP recognizes the need to mitigate human-wildlife conflict and focus livelihood interventions on these community members<sup>19,116</sup>



*The Uganda Wildlife Authority notes that gorilla conservation initiatives focused on awareness building, sustainable livelihoods, and other efforts to increase enterprise benefits to local communities can reduce the need for law enforcement programs.*

- **Use a suite of strategic approaches.** IGCP and others have found that a limited set of enterprises alone is unlikely to achieve the necessary level of threat reduction.<sup>110,113,116</sup> Instead, enterprise strategies supported by law enforcement and measures to reduce crop raiding are more likely to be effective at reducing resentment towards gorillas and resource use in the park.<sup>19,113-116</sup>
- **Improve understanding of threat inducers.** Assessments have concluded that in order to incentivize positive behavior change, conservation programs require a nuanced understanding of the who and why of unauthorized resource use and the costs and/or benefits of the enterprises to different stakeholders.<sup>110,111</sup>

To this end, IGCP and its partners have been carrying out surveys to understand the specific factors that influence behaviors of specific stakeholder groups, including the poorest. These surveys examine how certain factors may influence illegal behaviors, especially those that directly threaten gorillas, such as bushmeat hunting with snares. Partners at the site believe that if poorer households receive more benefits from the enterprise program, the parks' needs for and costs of law enforcement may be further reduced.<sup>19,114,115,127,128</sup>

### **Does a reduction in threats (or restoration) lead to conservation?**

Periodic censuses show the gorilla population increasing.<sup>19, 114, 129, 130</sup> Other studies have shown the ecological integrity and biodiversity values of Bwindi Impenetrable National Park remaining stable.<sup>110</sup> Community members interviewed clearly relate the sustainability of their ecotourism enterprises to the conservation of gorillas. However, it is difficult to directly attribute these trends to the enterprise program, as it is one of a suite of conservation measures being implemented by a wide range of institutions in and around the parks.<sup>119–124, 126, 131–133</sup>

### ***Adaptive management based on lessons learned***

IGCP has applied the following lessons as it continues adaptive management of enterprise support:

- **Support long-term partnerships to reach sustainability.** IGCP noted that, in some contexts, putting the conditions in place for sustainable conservation outcomes cannot be accomplished during the typical donor funding cycle of three to five years. IGCP has been able to provide consistent support to community organizations by working collaboratively with a team of partners, including government agencies and NGOs.<sup>16,116</sup>
- **Balance the agendas of multiple stakeholders.** IGCP stressed that achieving conservation outcomes requires that it balance its commitment to its own conservation mission with the development needs of communities whose livelihoods depend on or threaten park resources.<sup>16,116</sup>



## VI. CONCLUSIONS

The rare opportunity for USAID to return to six enterprise sites after two decades through this Retrospective evaluation yielded useful insights about (1) the assumptions underlying the generalized theory of change for conservation enterprises and (2) conditions required to sustain enterprise and conservation outcomes. These insights are provided to aid practitioners in designing and implementing this strategic approach to biodiversity conservation.

By gleaning long-term lessons at and across sites, as well as examining how implementing partners have adaptively managed their conservation enterprise approach, USAID has also provided a model for learning that can be replicated by others looking to improve specific strategies for biodiversity conservation.

### Key Findings

By specifically selecting sites where the conservation enterprise approach is still in operation after two decades, the Retrospective limited its sample and excluded comparison with sites at which enterprises did not last. Nevertheless, through the Retrospective, USAID identified and now shares conclusions about conditions that are necessary to sustain enterprises and deliver conservation and human development outcomes across six diverse contexts. Key findings include:

- 1. Implementing partners' role evolves over time.** Establishing and sustaining enterprises and achieving conservation outcomes takes longer than the typical three- to five-year donor funding cycle and requires the implementing partner's role to evolve over time. At all six sites, implementing partners' roles grew from providing technical assistance needed to establish enterprises to supporting business partnerships and alliances to ensure sustainability. Business partnerships are important for improving access to larger markets and/or ongoing technical capacity, while alliances among groups of community organizations at the regional or national level provide a collective voice to advocate for rights and policies. Fostering local leadership capacity, including the ability to transition leadership over time, is critical to achieving and sustaining every outcome in the theory of change.
- 2. Multiple enabling conditions need to be in place for enterprise sustainability.** Partners have focused as much on ensuring the enabling conditions for enterprise sustainability as on ensuring conservation. One such condition includes establishing legally recognized community organizations with rights over the natural resources needed for products and services. These organizations also need strong governance, particularly in cases where stakeholders compete for high-value enterprise benefits.
- 3. Community organizations spread the wealth through community services.** Typically, only a small percentage of community members receive direct cash benefits in the form of wages from enterprise employment or dividend payments. A larger percentage of community members receive non-cash benefits in the form of improved community services (e.g., infrastructure, education, and healthcare), which are provided using enterprise revenue. In some cases, an improvement in resource management to support the enterprises also improves provision of resources needed for subsistence, such as fuelwood, fodder, and timber. In many cases, aside from motivating support for conservation, community organizations also consider conservation enterprise benefits valuable from a development standpoint (i.e., co-benefits), because they improve the well-being of their members.
- 4. Different stakeholders are motivated by different benefits, which are not always monetary.** Because communities are diverse, incentivizing changes in attitudes and behavior toward conservation is not straightforward. Different stakeholders are motivated by different benefits. In some cases, positive behavior change appears to be less the result of direct income substitution and more the result of general positive

attitudes created by enterprise benefits and an understanding that benefits are linked to a conservation program. Implementing partners have learned that it is important to think “backwards” along the theory of change – from the desired biodiversity conservation outcomes, to the type and level of threat reduction required, to the type and level of behavior change needed – in order to fully understand the type and level of enterprise benefits that need to be realized by different stakeholder groups to affect desired changes. In most cases, enterprise benefits both: (1) rely on participants conserving or sustainably harvesting the resources that serve as inputs to the enterprise and (2) are conditional, requiring participants to comply with explicit rules and regulations regarding resource use and conservation.

- 5. Enterprise approaches are effective when implemented as part of a suite of conservation strategies.** At all six sites, the enterprise approach is only one of several conservation strategies, including awareness-building, securing land tenure and resource rights, law enforcement, and sometimes formal education and human-wildlife conflict mitigation. Implementing partners noted that these different strategic approaches would not succeed alone, but instead all work together to reduce threats and achieve and sustain conservation outcomes.
- 6. Fostering a virtuous cycle between livelihoods and biodiversity conservation is an important driver of sustainability.** Implementing partners and enterprise stakeholders report that the status of biodiversity has improved over the past 20 years. For some sites, this is corroborated by other assessments (Peten, Bwindi-Mgahinga, Palawan, Chitwan). In many cases, improved conservation of natural resources improves livelihoods, which in turn motivates continued commitment to conservation in a virtuous cycle.

### Implications for adaptive management

The Retrospective findings also have implications for adaptive management of conservation-focused programs. Implementing partners at all six sites continuously apply lessons to adaptive management in the following ways:

- 1. Developing a theory of change and continually revisiting assumptions.** In supporting conservation enterprises, implementing partners begin with a set of desired outcomes, as well as assumptions regarding how their support will lead to biodiversity conservation. In some cases, partners use the term “theory of change” to describe these outcomes and assumptions. In other cases, they are implicit within their overall strategies. Regardless, implementing partners continually revisit assumptions. Because communities evolve over time, as do the implementing partners themselves, assumptions are based on dynamic conditions, and strategic approaches need to be adapted in response to change. In many cases, resource users and their perception of the interdependence between their livelihoods and biodiversity change over time. Strategic approaches are therefore adapted to address these new dynamics.
- 2. Monitoring, evaluating, and learning for adaptive management.** Implementing partners have varying capacity and funding to monitor, measure outcomes, and test assumptions. Nevertheless, they continually use lessons learned through monitoring, evaluation, and learning to adaptively manage their strategic approaches. Most implementing partners report that they could benefit from more structured and systematic monitoring and learning in order to continually improve their work.
- 3. Committed to investing for the long-term.** Implementing partners emphasize that donors and partners who wish to encourage community approaches and achieve sustained conservation outcomes need to commit to long-term rather than quick-fix solutions. Funding needs often extend well beyond the typical activity life span of three to five years. Sustainability of enterprises and conservation outcomes also requires external organizations and government agencies to build strong local leadership capacity within community-level organizations.

## How these findings can be used

Practitioners can use these findings to better design and adapt conservation enterprise programs and to set more realistic expectations with donors and decision makers regarding:

- The timeframe and funding required to achieve and sustain outcomes using this strategic approach
- The importance of ensuring that a range of conditions are in place to support enterprise and conservation sustainability (See Table 2 on page 13)
- The role of long-term local leadership and the importance of local ownership
- The need to set up more robust monitoring and evaluation systems and practice adaptive management based on lessons learned

USAID and other practitioners can also use the generalized theory of change and findings from this Retrospective as a comparative framework to enhance the evidence base for the effectiveness of a conservation enterprise. Lessons learned from enterprise approaches across different contexts could also enhance the findings reported here. For example, a prospective assessment, as outlined in the [Conservation Enterprises Learning Agenda](#), could include a deliberate effort to collect consistent longitudinal data on a number of conservation enterprise approaches in different contexts. This would allow USAID to more reliably test the assumptions in the generalized theory of change and the conditions for effectiveness. A prospective assessment should also include a comparison of sites without an enterprise approach and/or where the approach was not sustained over time.

### Box 3. Additional USAID Resources on Conservation Enterprises

Available on [USAID's Biodiversity Conservation Gateway](#):

- [Conservation Enterprises: Using a Theory of Change Approach to Synthesize Lessons from USAID Biodiversity Projects](#)
- [Building a Conservation Enterprise: Keys for Success](#)
- [Cross-Mission Learning Agenda for Conservation Enterprises](#)

## VII. ANNEX

### A. Objectives of Retrospective

The review team structured the Retrospective around the set of objectives and analytical questions outlined below. The analytical questions, which are grouped under each objective, are the high-level questions addressed by the evaluation.

#### **Objective 1. Document the degree of alignment between the conservation enterprises theory of change and implementation approaches at the six sites**

The Learning Agenda for conservation enterprises uses a generalized theory of change (See Figure 1 on page 6). This generalized theory of change served as the framework for exploring key assumptions across the sites covered in this Retrospective. The team validated that the implementing partners' expected outcomes and assumptions for their enterprise approach are relevant to those in the generalized theory of change but specific for the context of their site.

##### **Analytical Questions**

- How did the implementing partners define success for the conservation enterprise approach? How did they know if they achieved it?
- Across the enterprise approaches, did the implementing partners share the same general desired outcomes and assumptions as the generalized theory of change for conservation enterprises in the Learning Agenda? What were their specific outcomes and assumptions?
- How did the conservation enterprise approach fit into the implementing partners' overall long-term conservation approach at the site?
- For each enterprise, what was the specific leadership role of local and other institutions?

#### **Objective 2. Review outcomes and lessons at each site and synthesize findings across sites**

The Retrospective uses available documentation and key informant interviews to synthesize findings and lessons relevant to the outcomes and assumptions in the theory of change for conservation enterprise and the conditions that influenced conservation outcomes from each enterprise approach over time. Key findings and lessons on outcomes and assumptions are synthesized across enterprises to inform the conditions under which conservation enterprises are likely to be effective over the longer term.

##### **Analytical Questions**

- For each enterprise approach, what is the existing evidence, if any, relevant to the outcomes and assumptions in the theory of change for conservation enterprises?
- What are the site-specific lessons, if any, based on the evidence for each assumption?
- Are there any commonalities or differences among lessons across site contexts that inform conditions or context under which conservation enterprises are likely to be effective?

### Objective 3. Describe if and how the implementing partners used adaptive management in response to lessons learned

The Retrospective draws information from available documentation and key informant interviews with implementing partners and enterprise stakeholders to assess how the implementing partners may have changed their actions or their assumptions as they gained experience and lessons learned. These adaptations are documented and synthesized across enterprises to better understand if and how course corrections during implementation might differ by site and affected outcomes.

#### Analytical Questions

- How did the implementing partners change their actions, outcomes, and/or assumptions based on lessons learned or other external circumstances?
- How were course corrections taken by enterprises different or similar across the site contexts?

## B. Methods

The methods for the Retrospective were based on guidance provided in USAID’s [“A Guide to Taking Stock of Natural Resources Management: Impacts and Lessons”](#) and consist of four phases: prepare, discover, analyze, and apply.

### Phase I: Prepare

**Audience, Objectives, and Analytical Question Identification.** In preparation for this Retrospective, USAID’s Office of Forestry and Biodiversity and the team reviewed evidence regarding the effectiveness of conservation enterprise approaches. The Office of Forestry and Biodiversity and the review team developed and agreed that the primary target audience for the Retrospective would be USAID staff designing programs with biodiversity funds who are or may be considering supporting conservation enterprise approaches. The Office of Forestry and Biodiversity and the review team then developed objectives and a suite of analytical questions.

**Enterprise selection.** The Office of Forestry and Biodiversity and the review team selected conservation enterprises for inclusion in the full assessment based on the following criteria:

- Capacity and availability to respond to the review objectives and analytical questions
- Likelihood of outcomes for biodiversity conservation
- Availability of information to increase the likelihood of drawing important lessons regarding the
- Effectiveness and sustainability of the enterprise approach
- Representation of different contexts and regions of the world with USAID biodiversity programming
- Availability and willingness of implementing partners and enterprise participants to work with the team before, during, and after a site visit

For simplicity, the Office of Forestry and Biodiversity decided to focus only on enterprises that have been sustained over the longer term without a comparison with enterprises that did not persist. Six enterprises best met the above criteria and were selected by the Office of Forestry and Biodiversity to include in the Retrospective.

**Desk review and data capture.** The review team conducted a document search and desk review for each site and the implementing partners’ enterprise approach at the site. The team searched online using keywords, and the implementing partners verified the list of relevant documents. An Excel spreadsheet data capture

tool, organized by the review question, was used to provide a framework to verify information from the desk review, key informant interviews, and site visits. It was structured around the objectives and analytical questions described on the previous page.

As the data capture tool was populated with information from the desk review, gaps in information became evident within and across sites. Filling these gaps was a focus of second-stage information collection, including site visits and key informant interviews (See Phase 2: Discover). The second stage of information collection also verified the findings of the desk review and documented contextual and visual elements of the enterprise's experience.

**Topic guides for interviews.** Based on the information needs identified during the desk review and documented in the data capture tool, the review team and regional experts created a customized topic guide for each individual and group interview.

## Phase 2: Discover

**Interviews and site visits.** During this phase, the review team and the regional experts collected data through individual and group interviews and observations in the field during site visits. The review team managed the interview process to ensure consistency in gathering the needed information across all sites. The interview team collected information from multiple sources, including enterprise participants and beneficiaries, to gain a broad perspective and triangulate conclusions from multiple points of view. The review team asked follow-up questions of implementing partners as needed once the team returned from the initial fieldwork and analysis (See Phase 3: Analyze).

## Phase 3: Analyze

**Synthesis of findings and lessons for each site and across sites.** For this phase, the team synthesized the findings and lessons generated during the desk review, interviews, and site visits around outcomes and assumptions in the generalized theory of change for conservation enterprises and other factors influencing conservation outcomes at the sites. Information was synthesized at the level of the enterprise approach implemented at the site as well as among enterprise approaches across sites. Given that sites were selected based on the implementation of a conservation enterprise approach applied in different ways and in a diversity of contexts, some findings and lessons are context-specific while others may cut across contexts. The cross-site analysis focused on identifying patterns and principles that provide insight into what works, what does not, and why in different contexts.

## Phase 4: Apply

**Report development to communicate findings.** As described above, USAID staff expressed the need for findings and lessons related to the use of enterprise approaches and the sustainability of conservation outcomes over the longer term. This Retrospective provides valuable perspectives that cannot be gained in standard short-term project reporting. The intent is to use the findings and lessons to increase the effectiveness of USAID biodiversity conservation programming and the use of conservation enterprise approaches. However, the findings and lessons documented in this Retrospective will also be of interest to the wider conservation and development community.

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