



JASON HOUSTON FOR USAID

# THEORIES OF CHANGE FOR USAID-SUPPORTED CONSERVATION ENTERPRISE APPROACHES

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### Full list of authors:

Judy Boshoven, Ashleigh Baker, Maria Elena Santana, Ximena Garcia, Emily Waytoti, Alvaro Gaillour, Marioldy Sanchez Santivañez, Annie Wallace, Teresa Robles, Regina Soto, Sofia Mendez, Celly Catharina, Andrea Pavlick, Jason Seuc, Netra Sharma, Khuong Tran Chinh, Scott Bartos, Beatrice Wamalwa, Brian Otiende, Ben Wandago, Mikala Lauridsen, Madalitso Kaferawanthu, Bronwyn Llewellyn, Jestina Kimbesa, Karolyn Upham, Shawna Hirsch, Jassiel M'soka, David Arnaldo Mijan, Jeremy Boley, Harry Ngoma, Catherine Lwando-Tembo, Megan Hill



# AGROFORESTRY & SILVOPASTORAL PRODUCTION TO DECREASE **DEFORESTATION IN BIO-CULTURAL CORRIDORS**













USAID has been supporting partners in the Amazon Piedmont since 2013 to promote and build local capacity for sustainable agroforestry and silvopastoral production as a means to reduce deforestation and increase forest continuity within bio-cultural corridors. La Ruta del Queso was designed as a strategy to promote the anti-deforestation

Support conservation enterprises

## ASSUMPTION

Partners provided farmers with plant materials, technical assistance for sustainable production, and market linkages to restaurants in Bogota for their products. Partners also supported cheese factories to ensure high quality products.

Enabling conditions are in place to support sustainable enterprises

### ASSUMPTION

The enabling conditions, such as technical capacity of farmers for sustainable practices and market linkages, are in place for farmers to sell their products.

# WHAT IS MEASURED & HOW

Partners tracked the number of farms implementing sustainable production; and the value chains supported and/or strengthened for products.

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Maria Elena Santana, Ximena Garcia, Emily Waytoti

cheese under the certificate of origin called Queso Caqueta. Mark Rausch, is a famous Colombian chef, has become the godfather of the Caqueta cheese. Farmers sign a conservation agreement and have created a network of private natural reserves registered at the National Parks Systems. A final evaluation of the program will be conducted during 2019.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits

ASSUMPTION As a result of practicing sustainable production and selling products, production costs decreases, load capacity increases, milk productivity increases, and farmers' household income increases.

WHAT IS MEASURED & HOW Partners tracked the number of farmers' households with increased economic benefits from selling their products.

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Benefits motivate and enable conservation attitudes and behaviors

# ASSUMPTION

As household income from enterprises increases, farmers are motivated to comply with conservation agreements to maintain and improve forest cover on their farms.

WHAT IS MEASURED & HOW Partners tracked the number of farm plans / conservation agreements completed; number of hectares under agreements; number of hectares of biological significance and/or natural resources under improved natural resources management.

**ASSUMPTION** 

As farms are managed according to plans/agreements, there is a decrease in the rate of deforestation from agricultural expansion and conversion to pasture for grazing, and an increase in the rate of forestation, including riparian forests, within the corridors.

WHAT IS MEASURED & HOW Partners have developed a monitoring systems and tracked deforestation rates in the corridor. Using remote sensing data, evaluators will assess the change in rates of deforestation as a result of agricultural and pasture expansion and reforestation from sustainable management during program support and compare against matched sites without program support.



# **ENTERPRISE TYPES**

- Agroforestry production (coffee, cocoa and rubber value chains)
- Silvopastorial production (dairy value) chain)

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

A reduction in threats and restoration contributes to biodiversity conservation

# **ASSUMPTION**

As deforestation rates decrease and forestation rates increase, the forest continuity is restored, and exiting forest remnants maintained within the corridors.

WHAT IS MEASURED & HOW Using remote sensing data, evaluators will assess forest continuity within the corridor.

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# ENTERPRISES FOR INDIGENOUS **COMMUNITY FOREST MANAGEMENT**

# PERU





# **Conservation Enterprise Approach**

Since 2014, USAID has supported partners to build the social capital of indigenous communities to help create the enabling conditions for economic entrepreneurship and forest conservation. Beginning in 2017, partners have supported seven communities in the Ucayali Region of the Peruvian Amazon to develop sustainable businesses.

Support conservation enterprises

# **ASSUMPTION**

Partners support communities in sustainable forest management, community governance, landuse conflicts resolution, and establishing and improving sustainable businesses. The partners are also transferring the community forest management and enterprise model to the civil society organizations and the government for scaling to other communities.

Enabling conditions are in place to support sustainable enterprises

## **ASSUMPTION**

By building the enabling conditions, such as technical capacity, business planning, land governance, mobilization of public/private funding resources, and linkages with buyers, productive committees have the capacity to generate revenues and scale up the community forest management and enterprise model.

WHAT IS MEASURED & HOW Partners track the number of community productive committees engaged in each type of enterprise.

# LEARNING QUESTIONS TO BE ADDRESSED THROUGH THE PARTNER'S INTERNAL EVALUATION THROUGH MONITORING, PARTICIPATORY ASSESSMENT MEETINGS AND STUDIES:

- Is it possible to generate a consensual vision of "indigenous businesses" in the communities?
- If we empower the community committees, will the value chains of the products (division of labor, roles and responsibilities) be consolidated? • Are the committed products delivered (no product leakage / fulfillment of contracts)?
- Do communities respond to the market demands of Citeindigena?

Indigenous artisan making products with forest fibers © AIDER

Alvaro Gaillour & Marioldy Sanchez Santivañez

Community productive committees, with about 30 households each, recognized by their respective Community Assemblies, are engaged in Citeindigena SRL. Citeindigena, currently owned by 10 communities was established in 2012, aggregates and sells sawn timber from the communities and, with the support of USAID, is expanding to nontimber forest products and agroforestry products as well.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits



Benefits motivate and enable conservation

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

**ASSUMPTION** Enterprises provide increased and more stable revenues to community productive committees from selling their products.

# WHAT IS MEASURED & HOW Partners track the productive

committees' revenues from selling products to Citeindigena. Partners track the number of people with improved economic benefits (including from participating in the productive committees) from sustainable resources management and/or biodiversity conservation.





ASSUMPTION The enterprise revenues provide the needed funds for community productive committees to sustainably manage their forests.

WHAT IS MEASURED & HOW Partners track the number of hectares of biological significance and/or natural resources under improved management (sustainable management of forests by community productive committees)

**ASSUMPTION** 

The financial and technical capacity for indigenous communities to conserve and sustainably manage their forests contributes to reductions in invasions of small scale slash and burn agriculture and illegal logging into the forest.

WHAT IS MEASURED & HOW Partners track the number of hectares of areas of biological significance and/or natural resources under improved management (including a reduction in the incidents of threats).

• Is it possible for Citeindigena to create the demand for products from the indigenous communities in a sustained manner over time? • If Citeindigena is successfully enabled, can it function sustainably as a company?

• Is the sale of prioritized products enough to continue with Citeindígena as a commercial aggregator?

• Does the increase in communities's income lead to compliance with sales contracts between communities committees and Citeindigena? • Does the increase in income (and the change to a business mentality) lead to improved management of the forests by indigenous communities? • Could the change to a business mentality affect the sense of identity and culture?



# **ENTERPRISE TYPES**

- Timber
- NTFPs, including shiringa rubber, handcrafting, and
- Agroforestry products, mainly cocoa

A reduction in threats and restoration contributes to biodiversity conservation

ASSUMPTION

Forest cover is maintained and there is a reduction/avoidance of greenhouse gas emissions on lands owned and managed by indigenous communities.

WHAT IS MEASURED & HOW

Partners track the number of hectares of areas of biological significance and/or natural resources showing improved biophysical conditions (e.g., forest cover).

Sustainable harvest of shiringa rubber from natural forests © AIDER

# GUATEMALA







**Conservation Enterprise Approach** 

For about 20 years, USAID has funded organizations working in Petén, Guatemala to support community concessions in developing conservation enterprises in the Maya Biosphere Reserve (MBR). Created in 1990, MBR covers about 20% of Guatemala and hosts

Support conservation enterprises

# ASSUMPTION

Partners have supported community organizations that manage concessions in the MBR in establishing and sustaining enterprises for timber and nontimber forest products.

**Enabling conditions are** in place to support sustainable enterprises

ASSUMPTION

By building the enabling conditions, timber and NTFP enterprises of the community timber concessions have the capacity to generate revenues and engage participants over time.

WHAT IS MEASURED & HOW Researchers and evaluators conducted key informant interviews (KIIs) with stakeholders and focus group discussions (FGDs) with enterprise participants on their perceptions of the influence of conditions on concession and enterprise development and sustainability.

### **KEY LESSONS**

Concession governance and leadership, literacy rates, dependence on agricultural and livestock livelihoods, forest management knowledge, and concession size influence the stability of the concessions and their enterprises. Given conflict over high-value resources, continuous support, especially in governance, is needed.

The Asociación Forestal Integral Cruce la Colorada sawmill in Carmelita sustainably harvests mahogany and other timber from its community forest concession. Carmelita was the first concession in the region 20 years ago and is looking towards having to renew the contract with the government in five years. © JASON HOUSTON FOR USAID

# TIMBER AND NON-TIMBER FOREST PRODUCT ENTERPRISES IN THE MAYAN BIOSPHERE RESERVE

Annie Wallace, Teresa Robles, and Regina Soto

a large number of endangered plants and wildlife. The community organizations that manage the concessions and own the enterprises are required to achieve Forest Stewardship Council certification and are responsible for patrolling, monitoring, and reporting illegal activities to the government.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits



Benefits motivate and enable conservation attitudes and behaviors

# ASSUMPTION

Enterprises provide increased and more stable income from salaries and payments for collecting and sorting NTFPs. Revenues will also contribute to in-kind community health and education services.

# WHAT IS MEASURED & HOW Researchers and evaluators conducted household surveys and

Klls with enterprise participants to assess their perceptions of benefits.

## **KEY LESSONS**

Concession members benefit more from direct employment and payments, but in some cases non-members also benefit from inkind community services provided through concession revenues.

ASSUMPTION The enterprise benefits provides incentives for community members to sustainably manage concessions and protect against

fires, illegal logging, and illegal

colonization.

WHAT IS MEASURED & HOW Evaluators conducted KIIs with stakeholders, including park authorities, and FGDs with enterprise participants regarding their motivations for managing their concessions.

**KEY LESSONS** Enterprise benefits incentivize concession members, but in some concessions, perceived lack of fairness in benefit distribution is source of conflict.

**ASSUMPTION** Strong management of the concessions and their enterprises contributes to reducing deforestation threats. Joint law enforcement operations with government is also critical.

concessions.

**KEY LESSONS** Concession members, incentivized by enterprise benefits, manage forests and protect from external threats and do so at least as well as other protected areas. However, it is becoming increasingly difficult to manage illegal activities given the lack of support for law enforcement.



# **ENTERPRISE TYPES**

- Timber, including mahogany and Spanish cedar
- Non-timber forest products (NTFPs) such as xate palm, chicle latex, breadnut, and allspice
- Cultural and ecotourism services

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

## WHAT IS MEASURED & HOW Evaluators conducted KIIs with park authorities and FGDs with enterprise participants to assess their perceptions of change in threats over time. Researchers track the incidents of fire within and outside of

A reduction in threats and restoration contributes to biodiversity conservation

## **ASSUMPTION**

Improved forest cover and condition supports improved habitat for endangered species and also the sustainability of community enterprises.

WHAT IS MEASURED & HOW Studies conducted on deforestation rates within and outside of concessions and on abundance of jaguar and prey species.

### **KEY LESSONS**

A study indicates that well managed concessions have reduced deforestation rates as well as, if not more effectively than surrounding government-managed protected areas. A study shows that active concessions harbor an abundance of jaguar and prey species.

# HONDURAS



# ENTERPRISES TO INCREASE RESILIENCE AND PROTECT WATERSHEDS

**Conservation Enterprise Approach** Since 2016, USAID has supported partners to increase livelihood resilience for vulnerable communities consistent with promoting the defense of the most important remaining forested areas in western

Support conservation enterprises

# ASSUMPTION

Partners support community members in technical training, business development establishing market linkages, value chain analysis, and business management to help establish and improve enterprises.

Enabling conditions are in place to support sustainable enterprises

**ASSUMPTION** 

By building the enabling conditions, such as technical capacity, business management, market linkages, conservation enterprises have the capacity to increase sales and create jobs.



Mountaineering training in Taulabe caves, Honduras. USAID/Honduras supports youth to increase incomes and thus see their future in Honduras while protecting the environment. © ANDREA TELLEZ/DAI

WHAT IS MEASURED & HOW Partners track the number of people trained in sustainable agricultural livelihoods; dollar amount of new net sales of participating conservation enterprises by type of enterprise; number of conservation enterprises adopting clean/renewable energy technologies and/or best practices; percentage of female participants in programs designed to increase access to productive economic resources; number of people (by gender and type of activity) with new employment (FTEs) created in participating rural conservation enterprises; number of private sector investment leveraged for conservation.

Sofia Mendez

Honduras. The II areas of influence with biological significance are typically near the upper headwaters of watersheds that are under the threat of expansive agriculture and overuse of timber for fuelwood, making effective conservation critical to downstream ecosystems.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits

# **ASSUMPTION**

Enterprises provide increased income to participants from selling their products or services and from using renewable energy sources (e.g., solar dryers and improve cookstoves) which reduces the costs of inputs for production. The increased income from non-agriculture conservation enterprises reduces participants' cost on energy and water by using cleaner production principles, and decreases their need to depend exclusively on agriculture (building resilience).

WHAT IS MEASURED & HOW Partners track the number of households with new income from conservation enterprises and number people with improved economic benefits (including from conservation enterprises) derived from NRM and/ or biodiversity.



Benefits motivate and enable conservation attitudes and behaviors

# ASSUMPTION

Increased income from enterprises not only reduces the need for expansive agriculture and unsustainable use of inputs for production, but also motivates participants to get involved in voluntary community conservation schemes such as working to preserve their watershed from forest fires, deforestation and other identified threats.

WHAT IS MEASURED & HOW Partners track number households and microenterprises using renewable energy and applying clean production; number hectares of biological significance and/or natural resources under improved management, including areas where agricultural producers are mplementing good agricultural practices to protect soil and water resources.

Forest clearing for agriculture and the use of firewood and water as inputs to production is reduced in biologically sensitive areas in western Honduras.

WHAT IS MEASURED & HOW Partners track the number of hectares of areas of biological significance and/or natural resources under improved management (including a reduction in the area cleared for agriculture, affected by forest fires etc). A satellite methodology (Terra I Honduras) was developed to measure gains and losses of land coverage.



# **ENTERPRISE TYPES**

- Agroforestry products, including cocoa, avocado, coffee, sugar cane loaves
- Livestock, including milk and beef
- Natural fiber crafts from junco, tule, tuza, and palma
- Clay products, including tile and brick
- Ecotourism, including hiking, climbing, cycling, mountaineering, river tubing and kayaking

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

ASSUMPTION

A reduction in threats and restoration contributes to biodiversity conservation

# ASSUMPTION

Forest cover is maintained and there is a reduction/avoidance of greenhouse gas emissions on lands owned and managed by enterprise participants.

# WHAT IS MEASURED & HOW

Partners track the number of hectares of areas of biological significance and/or natural resources showing improved biophysical conditions (i.e., area with forest cover within their 11 areas of influence based on satellite data from an early alert system). Partners will monitor felines and their prey.

Kayaking training of local eco-tourism association in Lake Yojoa, Honduras. © ANDREA TELLEZ/DAI

# INDONESIA



**TETRA TECH** 

# COMMUNITY-BASED CONSERVATION ENTERPRISES **AROUND MARINE PROTECTED AREAS**

**Conservation Enterprise Approach** Located in the Coral Triangle, Indonesia's marine resources play a key role in maintaining the world's fisheries. The USAID SEA Project creates conservation incentives for communities around marine

Support conservation enterprises

# **ASSUMPTION**

Partners provide technical and business development assistance to help build sustainable enterprises for communities around MPAs.

Enabling conditions are in place to support sustainable enterprises

# ASSUMPTION

By building enabling conditions, such as technical capacity, business planning, and market linkages, fishers have stable markets for sustainable products and/or tourism services.

WHAT IS MEASURED & HOW Partners tracking the number of active community-based microfinance associations, number of enterprises established, and number of people engaged in enterprises.

# **KEY LESSONS**

Including *adat* management approaches (traditional knowledge) empowers communities to safeguard their natural heritage and ensure sustainability.

Processing of anchovy catch © USAID-SEA ACTIVITY

Celly Catharina, Andrea Pavlick, Jason Seuc

protected areas (MPAs) by engaging small-scale fishers in business activities that enhance stewardship rather than over exploitation of resources.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits



Benefits motivate and enable conservation attitudes and behaviors

# ASSUMPTION

Stable income for fishers helps communities, local government, and the private sector understand the value of conservation, management, and enforcement for protecting fisheries, critical habitats and marine-based livelihoods.

WHAT IS MEASURED & HOW Partners tracking number of people demonstrating behaviors that contribute to biodiversity conservation, including those resulting from enterprise participation.

144 500

## **KEY LESSONS**

MPAs fail due to social conflict over resource use. Therefore, enterprise benefits must be viewed as fair to for the enterprise to succeed (and working with stakeholders from the outset can achieve this).

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

# ASSUMPTION

Improved management increases stakeholder engagement and compliance with MPA regulations and decreases use of unsustainable fishing practices.

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WHAT IS MEASURED & HOW Partners tracking number of hectares of biological significance and/or natural resources under improved natural resource management, including MPAs.

# **KEY LESSONS**

Enterprise benefits help to provide motivation for conservation. Although challenging to establish, local community surveillance groups provide the quickest and most effective way to encourage compliance with local MPA regulations.

# harvested fish or ecotourism

**ASSUMPTION** 

services will provide increased and stable income for communities.

Stable markets for sustainably

# WHAT IS MEASURED & HOW

Partners tracking the number of people with increased economic benefits derived from sustainable natural resource management and conservation (including from enterprises), including increased household income, assets, nutrition, and other benefits.

# **KEY LESSONS**

Successful ecotourism relies on stakeholders that share a vision and work together to harmonize economic growth and ecological protection. Fisheries enterprises also provide significant benefits to participants.



# **ENTERPRISE TYPES**

- Sustainable fishing initiatives for tuna, snapper, grouper, mackerel, sardines, anchovies, and flying fish eggs
- Sustainable community-based tourism services, including diving, snorkeling, recreational fishing, homestays, and resorts
- Salted fish and handmade soap made from coconut oil as part of sustainable tourism services



A reduction in threats and restoration contributes to biodiversity conservation

# ASSUMPTION

A decrease in unsustainable fishing contributes to healthier fish populations and improved coral reef, mangrove, and seagrass habitats, which in turn will provide for improved livelihoods.

# WHAT IS MEASURED & HOW

Partners tracking number of hectares of biological significance and/or natural resources showing improved biophysical conditions. This indicator will document the change in coral reef cover, fish abundance and fish size in selected communities in three provinces as an outcome of improved MPA management.

# **KEY LESSONS**

MPAs are most effective in protecting endangered and threatened species when they are established with local communities, who know where the species are and want to protect them.

# NEPAL







# ENTERPRISES TO REDUCE UNSUSTAINABLE RESOURCE DEPENDENCY FROM COMMUNITY FORESTS

# **IMPACT EVALUATION**

USAID is currently directing an evaluation to assess if livelihood programs, including enterprises, influence resource use and biodiversity outcomes. The evaluation will use a nested "before-after-control-impact" (BACI) design in which differences between treatment and comparison units are measured before and after the intervention. The evaluation will include three data collection efforts: interviews of community forest user groups, households within those communities, and biodiversity data collections within community forests. Around 3,400 forests plots and 5,400 households are surveyed for the study.

> Support conservation enterprises

**Conservation Enterprise Approach** USAID has supported partners to address biodiversity threats and climate vulnerabilities and improve community forest resource management in the Chitwan-Annapurna Landscape and the Terai Arc Landscape. Partners have supported Forest User Groups and

Enabling conditions are in place to support sustainable enterprises

**ASSUMPTION** 

By building the enabling conditions such as registration of enterprises, business planning and technical backstopping from service providers, cooperative strengthening of community forestry group members, availability of raw materials, access finance and linkage with market, collaboration with local government, strengthen enterprise internal governance (common property), enterprises are established and sustained.

WHAT IS MEASURED & HOW Partners tracking the number of enterprises established and strengthened, legal status of enterprises, people benefited, women entrepreneurs engaged, number of people employed, amount of revenue generated, number of PHPA conducted, number of business plans developed, amount of revolving fund mobilized, resources leveraged from local government and private sector. Evaluators conducting Klls, FGDs, and household survey on participation in conservation

activities and enterprises.



# **ASSUMPTION**

Partners provide value chain analysis, business plan development, technical assistance (knowledge, capacity and skills), equipment or material support for establishing conservationfriendly enterprises.



Woman tying broom grass to create household brooms © USAID – HARIYO BAN

Netra

associated community organizations in developing conservationfriendly enterprises with the assumption that, as income from conservation-friendly enterprises increases leads to, conservation friendly behavioral change, household dependence on forest resources declines, and selected biodiversity elements improve.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits



Benefits motivate and enable conservation attitudes and behaviors

### **ASSUMPTION**

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Household income, part-time and full-time employment, profit for cooperative shareholders, women empowerment, and leadership development increases from participation in conservationfriendly enterprises.

WHAT IS MEASURED & HOW

Partners tracking number employed, % of employment and amount of revenue/income generated from conservation-friendly enterprises. Evaluators conducting KIIs and FGDs with forest user groups on income generated and household survey on wealth and wellbeing status of members, including change in cash and non-cash (subsistence) income sources, assets, food, water, energy security.



ASSUMPTION

As household cash income increases from conservationfriendly enterprises, the need for illegal/unsustainable harvesting and selling of firewood and timber decreases; encroachment of forest area for agricultural/residential purposes decreases; and involvement in conservation activities such as plantation, forest fire control, forest management including periodic revision and renewal of forest operation plans and youth involvement in CBPAUs increases.

WHAT IS MEASURED & HOW Partners tracking the number of management/action plans prepared number of community-based antipoaching units form/mobilized, and hectares under improved management. Evaluators conducting KIIs, FGDs, and household survey with forest user group members on conservation awareness and participation in forest management

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**ASSUMPTION** 

Change in forest resource use leads to a reduction in incidents of threats, such as overharvest of fuelwood and high-value NTFPs and encroachment in forest land, open grazing, forest fires, soil erosion (topsoil loss). Change in conservation attitudes and behaviors will lead to decrease in poaching.

WHAT IS MEASURED & HOW Partners tracking years of zero poaching of tiger and rhino maintained and trend or status of illegal logging. Evaluators conducting Klls with user group leaders on threats



# **ENTERPRISE TYPES**

- Livestock (pigs, stall feeding for milking cow and goat, poultry, fish)
- NTFPs (plantation, collection, processing and marketing) – marmelous, chiraito, nettle powder, broom grass
- Beekeeping and honey
- Homestays
- High value crops plantation, processing and marketing (vegetables, tea, coffee, cardamom, fruit)
- Services (electrician, plumber, mason, carpentry, small retail shops, ICS – metal clay and biogas installers)

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

A reduction in threats and restoration contributes to biodiversity conservation

**ASSUMPTION** Threat reduction contributes to forest maintenance or improvement, such as improvement in forest health and key species populations.

# WHAT IS MEASURED & HOW

Partners tracking area showing improved biophysical condition and number of individuals of tiger, rhino, snow leopard. Evaluators assessing forest condition using 47 biophysical variables and matching groundtruthed biodiversity data to remote sensing data for canopy cover.

Freshly harvested cardamom ready for drying © USAID – HARIYO BAN

# VIETNAM



# CONSERVATION ENTERPRISES IN COMMUNITIES AROUND PROTECTED FOREST AREAS

Support conservation enterprises

### **ASSUMPTION**

Partners have conducted livelihood analysis, value chain assessments, and supported community groups around protected forests within a proposed biodiversity corridor in establishing and improving enterprises. Enabling conditions are in place to support sustainable enterprises

# ASSUMPTION

By building the enabling conditions through a value chain approach, including technical capacity, business planning, and linkages with buyers, agricultural cooperatives and community forest groups generate revenues and engage more members over time. Strengthening the cooperative alliances will support enterprise sustainability and benefits from a structured relationship with the government.

WHAT IS MEASURED & HOW To identify enterprises, partners conducted extensive surveys and participatory exercises with community groups. Partners track the number of individuals trained in sustainable forest management and climate-smart agricultural practices, funds mobilized to support enterprises, and people with improved capacity (gender and ethnicity disaggregated data).

Handicraft production © USAID – GREEN ANNAMITES Khuong Tran Chinh, Scott Bartos

# **Conservation Enterprise Approach**

Since 2018, USAID has supported partners to organize groups of farmers around protected areas in the provinces of Thua Thien Hue and Quang Nam, where remnants of primary forest still exist. Enterprise support is focused on vulnerable communities, especially rural ethnic minorities living in poverty, who traditionally depend on forests for livelihood support. To ensure sustainability, the partners mobilize funding to support village cooperatives, women's unions and other private sector stakeholders to establish enterprises aimed at generating income from sustainable sources, restoring forests, avoiding emissions from deforestation, and reducing climate vulnerability. It is still too early to know if enterprises will result in reductions in threats to protected areas.

# THEORY OF CHANGE

Enterprises provide stakeholder benefits



Enterprises provide participants with increased and more stable income from selling products and services.

WHAT IS MEASURED & HOW Partners track the number of people receiving livelihood co-benefits (monetary or non-monetary) and benefiting from scaling up of successful business models, and amount of income reported from scaling up successful business models.



Benefits motivate and enable conservation attitudes and behaviors



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Conservation behaviors of stakeholders contribute to a reduction in threats (or restoration)

### **ASSUMPTION** If the communities are able to general legal income from

to general legal income from enterprises, then they reduce the effort put into activities that degrade the forest in the buffer zones of the PAs.

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WHAT IS MEASURED & HOW Partners track the number of hectares of biological significance and/or natural resources under improved management, including by community groups participating in enterprises.

# ASSUMPTION

Strong management of agricultural cooperatives and community forestry groups and their enterprises contribute to reductions in wildlife poaching (mostly small mammals for their consumption and trade), illegal timber and NTFP harvesting for consumption and sale in domestic markets, and encroachment into forests for shifting cultivation and acacia plantations.

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WHAT IS MEASURED & HOW Partners track the number of hectares of biological significance and/or natural resources under improved management, including the number of incidents (poachers, illegal loggers), as reported by the PA.

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# **ENTERPRISE TYPES**

- FSC-certified Acacia for timber on bare land
- Medicinal plants
- Rattan
- Climate-smart rice production
- Ecotourism
- Handicrafts
- Vegetables and chili
- Honey

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A reduction in threats and restoration contributes to biodiversity conservation

ASSUMPTION

A decrease in illegal activities in buffer zones supports improved forest cover and increased wildlife populations in PAs.

WHAT IS MEASURED & HOW Partners track the number of hectares of forest land restored/ regenerated and abundance of selected species as related to the incidents of poaching and illegal logging reported.

# KENYA





# **ENTERPRISES AS INCENTIVES FOR** COMMUNITY CONSERVATION

**Conservation Enterprise Approach** 

USAID is promoting conservation enterprises as an economic empowerment tool in supporting the implementation of the community conservation model across various critical ecosystems throughout Kenya. The number of people with increased economic benefits has increased and over 4.3 million hectares of biological significance have been placed under improved natural resource management. USAID's partners in Kenya include: the Northern

Support conservation enterprises



Enabling conditions are in place to support sustainable enterprises

# ASSUMPTION

Partners help develop business plans, set up savings and credit schemes, create market linkages, business networks and partnerships, and provide other technical support to establish enterprises.

ASSUMPTION By building the enabling conditions, such as governance systems, credit, and technical capacity, enterprises are established and sustained.

WHAT IS MEASURED & HOW Partners track the number of enterprises established and tourism partners/investors.

Beatrice Wamalwa, Brian Otiende, Ben Wandago and Mikala Lauridsen

Rangelands Trust (NRT) and Maasai Mara Wildlife Conservancies Association (MMWCA) that are umbrella organizations representing over 50 conservancies in the northern and southern rangelands of Kenya. Efforts include supporting improved livelihoods of landowners and community members for biodiversity conservation and human well-being outcomes and improved governance and leadership structures as well as financial sustainability of the conservancies.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits

ASSUMPTION Participation in conservation enterprises increases household income.

WHAT IS MEASURED & HOW Partners track the number of people with improved economic benefits from NRM; value of revenue generated from improved NRM (includes income from enterprises); number of landowners/people receiving land lease payments and proceeds from sales of cattle and crafts.

Benefits motivate and enable conservation attitudes and behaviors

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

# ASSUMPTION

As household income from enterprises increases, the need for unsustainable land use practices and habitat degradation declines, and compliance with management plans (e.g. rotational grazing) and reporting violations increases.

WHAT IS MEASURED & HOW Partners track the area under improved NRM (e.g rotational grazing management and compliance with resource use plans, which is reported by the conservancy.

ASSUMPTION Change in forest resource use and compliance with management plans contributes to a reduction in threats, such as elephant poaching, overgrazing, fencing that inhibits wildlife movement, and fuelwood collection.

WHAT IS MEASURED & HOW Partners track the incidents of poaching which are reported by community rangers. There are various other influences on threat reduction within conservancy, for example, increased monitoring and enforcement.



# **ENTERPRISE TYPES**

- Ecotourism (camps & lodges, safaris)
- Livestock
- Crafts
- Mangos
- Fish



A reduction in threats and restoration contributes to biodiversity conservation

# ASSUMPTION

Threat reduction contributes to forest maintenance or improvement, such as increase in forest cover and species populations.

WHAT IS MEASURED & HOW Partners track the number of hectares of biological significance and/or natural resources showing improved biophysical conditions (i.e., improvement in one or more natural resources).

# MALAWI









# ESSENTIAL OIL AND CHARCOAL ENTERPRISE TO REDUCE DEFORESTATION

LUCHECHE COOPERATIVE

# **Conservation Enterprise Approach**

In January 2016, a USAID supported partner provided a three year grant to the Kawandama Hills Plantation (KHP). KHP is a company established in 2009 with a 55 year lease within the Viphya Plantation to a large tract of grassland with small pockets of indigenous forest, adjacent to the Perekezi Forest Reserve. KHP operates an essential oil and sustainable charcoal business produced from their plantations

Support conservation enterprises

## ASSUMPTION

Partners provide training and quality seedlings to cooperative members to plant eucalyptus on marginal lands so that they can commercially supply leafy biomass to KHP for essential oil distillation while not competing with production of agricultural crops for consumption.

**Enabling conditions are** in place to support sustainable enterprises

1 Parts

### **ASSUMPTION**

The enabling conditions, such as materials and technical capacity are in place for the cooperative members to grow trees and sell biomass to KHP and for KHP to directly employ about 200 people.



A KHP employee loads a half orange kiln with Corymbia citriodora offcuts to make sustainable charcoal © GINA ALTHOFF/ **TETRA TECH** 

WHAT IS MEASURED & HOW KHP tracked annual yields of leaf biomass, oil, and charcoal; KHP annual revenues; number of cooperative members participating; income earned by cooperative members; qualitative assessment of issues with expansion, such as infrastructure and markets for charcoal, and managing community members expectations.

# **KEY LESSONS**

Given the time and resources available, only a limited number of community members could participate in selling biomass to KHP in this phase, but growing interest. Revenues increased.

Madalitso Kaferawanthu

of Lemon Eucalyptus. In addition, KHP has supported farmers in adjacent communities to establish a cooperative, and plant trees on their property. The members then sell the leafy biomass to KHP, twice per year, at a fair market rate, which KHP uses to distill essential oil. This relationship economically benefits cooperative members and KHP, and the sustainable charcoal is helping to offset illegally and unsustainably produced charcoal.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits

Benefits motivate and enable conservation attitudes and behaviors

## ASSUMPTION

There is an increase in household income to cooperative members from the sale of leafy biomass to KHP, and households have a supply of sustainable wood.

# WHAT IS MEASURED & HOW

KHP tracked their annual total income distributed to members and annual % increase in total income distributed to members.

## **KEY LESSONS**

KHP and cooperative member income increased. The periodicity and timing of cash income is important, as selling biomass produced on marginal lands provides cash income to households when needed to purchase inputs for agriculture.

# **ASSUMPTION**

As household supply of sustainable wood increases, their need for using illegally harvested firewood from the Reserve decreases; as household income from leaf sales increase, their need to produce and sell charcoal within the Reserve decreases.

### WHAT IS MEASURED & HOW KHP described their perceptions regarding members' decreased need

to collect fuelwood from the reserve. Cooperative members documented their use of harvested Lemon Eucalyptus offcuts in place of wood collected from the Reserve.

## **KEY LESSONS**

KHP reported that members had less need to collect fuelwood from the reserve; and less need to illegally produce/sell charcoal for income generation.

There is high demand from surrounding communities to expand the Cooperative / Lemon Eucalyptus outgrower program, however the costs of leafy biomass transport to the KHP oil processing facility is the limiting factor.

As the need for using illegally harvested firewood from indigenous trees declines, community members no longer illegally cut native forests in the Reserve. As cash income from leafy biomass sales increases and is available prior to the planting season, the need to illegally produce/sell charcoal decreases.

WHAT IS MEASURED & HOW There was no before/after assessment of illegal fuelwood cutting and charcoal production intensity.

**KEY LESSONS** Too early for lessons.



# **ENTERPRISE TYPES**

Essential oil and sustainable charcoal from plantations of Lemon Eucalyptus (C. Citriodora)

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

**ASSUMPTION** 

A reduction in threats and restoration contributes to biodiversity conservation

## **ASSUMPTION**

As community members no longer cut native forests, deforestation rates decrease, tree species diversity is maintained/increases, and habitat for wildlife improves in the Reserve.

## WHAT IS MEASURED & HOW

Outside of the grant to KHP, the Project conducted a forest inventory of the Reserve, which documented baseline species diversity, size class, regeneration, etc. So this could be "measured" in future.

**KEY LESSONS** Too early for lessons.

# TANZANIA







# ENTERPRISES TO IMPROVE CHIMPANZEE HABITAT AND POPULATIONS

# **Conservation Enterprise Approach**

USAID is supporting partners to work together with communities, local government authorities, and government agencies to address threats to chimpanzees in Western Tanzania. During the past eight years, partners have worked with local farmers in 74 villages around both District Forests and Village Forests in the Katavi and

Support conservation enterprises

# Enabling conditions are in place to support sustainable enterprises

**ASSUMPTION** 

By building the enabling conditions, such as business planning and technical capacity, credit programs, and market linkages, enterprises are established and sustained. An evaluation of the first 4 years of implementation found that adoption of some of the some enterprise activities was mixed. The new model for this phase is to set up "Community Conservation Banks," with participants selecting their enterprises and the banks providing ongoing technical assistance (as opposed to one-off trainings).

WHAT IS MEASURED & HOW Partners tracking the number of active community-based microfinance associations, number of enterprises established, and number of people engaged in enterprises.

ASSUMPTION Partners conduct value chain assessments and provide technical assistance to community groups around district and village forests to

establish enterprises.



Selling honey © BRONWYN LLEWELLYN

Bronwyn Llewellyn, Jestina Kimbesa, Karolyn Upham

Kigoma regions to establish conservation enterprises. The program has recently been expanded to include a total of 104 villages. An evaluation was conducted for the first four years of implementation. Lessons from the first eight years in establishing enterprises are being applied to the next phase.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits



Benefits motivate and enable conservation attitudes and behaviors

# **ASSUMPTION**

Household income increases from participation in conservation enterprises.

WHAT IS MEASURED & HOW Evaluation of the first 4 years of implementation found, in reviewing progress towards targets, that performance indicators tracked by partners for livelihoods were reported in the aggregate, not by household or enterprise, where most decisions are made. The next phase will adapt for these issues. Partners will track the number of people and villages with increased income from enterprises and dollar value generated via environmentally friendly enterprises.

## **ASSUMPTION**

As household income from enterprises increases, the need for fuelwood collection, charcoal making, and agricultural encroachment into the forests and wetlands declines, while compliance with forest resource use plans and reporting violations increases.

WHAT IS MEASURED & HOW Partners tracking implementation of management plans with a semistructured questionnaire and FGDs regarding participation in forest management activities.

ASSUMPTION

Change in forest resource use and compliance with resource use plans contributes to a reduction in threats, such as incidents of illegal timber and charcoal production and encroachment for agriculture, and in a reduction in contact with chimpanzees.

WHAT IS MEASURED & HOW Partners tracking the number of weekly forest loss alerts received, disaggregated by village, district, and Tanzania National Parks Authority. Gombe Stream Research Center tracks human contact with chimpanzees and disease transmission.



# **ENTERPRISE TYPES**

- Coffee
- Beekeeping/Honey
- Woodlots
- Mangoes
- Mushroom collecting
- Ecotourism

Conservation behaviors of stakeholders contribute to a reduction in threats (or restoration)

A reduction in threats and restoration contributes to biodiversity conservation

ASSUMPTION Threat reduction contributes to forest maintenance or improvement, such as an increase in forest cover and chimpanzee populations.

WHAT IS MEASURED & HOW Partners tracking % forest loss, number of chimpanzees using corridors, and chimpanzee population size.



Local dancers perform for ecotourists. © BRONWYN LLEWELLYN

# UGANDA



# HIGH-VALUE CROPS & HONEY ENTERPRISES IN COMMUNITIES **AROUND FOREST RESERVES & NATIONAL PARKS**

USAID has supported partners over the past 8 years to work with the National Forestry Authority (NFA) and the Uganda Wildlife Authority (UWA) to engage communities in agreements to manage resources in the buffers of protected areas (PAs), reducing crop raiding from wildlife, such as chimpanzees and elephants, and threats

Support conservation enterprises

# ASSUMPTION

Partners have supported community groups that are signatories to agreements in establishing enterprises.

**Enabling conditions are** in place to support sustainable enterprises

# ASSUMPTION

By building the enabling conditions, such as technical capacity, business planning, equipment, and market linkages, community enterprises have the capacity to generate revenues, demonstrate benefits, and engage more members over time.

# WHAT IS MEASURED & HOW

Partners tracked the number of enterprise groups. Partners conducted key informant interviews (KIIs) with stakeholders and focus group discussions (FGDs) with enterprise participants on their perceptions regarding the influence of conditions on enterprise development and sustainability.

# **KEY LESSONS**

Longer time-frames needed to establish enterprises. Formation of legally-recognized cooperatives strengthens community cohesion around enterprises. Participants need business development skills to position themselves to "push" toward the market "pull". Initially producers were linked with specific buyers who determined prices; partners learned that "market flexibility" allows producers to potentially find diverse and stronger markets.

Growing chili in the buffers of a protected area to earn income and reduce human-wildlife conflict © AFRICAN WILDLIFE FOUNDATION Shawna Hirsch

# **Conservation Enterprise Approach**

from illegal activities. To date, a small subset of the community households in the villages or parishes volunteer to pilot the enterprises. Through technical assistance, equipment and seed grants through the Uganda Biodiversity Fund, community groups have established various enterprises.

# THEORY OF CHANGE

**Enterprises provide** stakeholder benefits

ASSUMPTION

Enterprises will provide community members with increased income from selling chili and honey to buyers. Chili will deter elephants from damaging crops. Benefits will also improve the relationship with PAs.

WHAT IS MEASURED & HOW Partners tracked increased revenue accruing to communities from enterprises. Partners conducted FGDs with enterprise participants to assess their perceptions of benefits.

# **KEY LESSONS**

Continued support from partners is needed to find consistent markets for enterprise products or develop additional income generating activities for sustainable benefits.

Benefits motivate and enable conservation attitudes and behaviors

# **ASSUMPTION**

Enterprise benefits will provide incentives for community members to comply with the terms of the agreements, increase monitoring by community scouts, and report incidences of threats to PA authorities.

WHAT IS MEASURED & HOW Partners tracked the number of

agreements developed between government and communities. Partners conducted KIIs with stakeholders, including park authorities, and FGDs with enterprise participants regarding their motivations for signing and complying with CFMAs/MOUs.

# **KEY LESSONS**

della star

Engagement in enterprise activities incentivized community members to sign agreements. Partners reported that even before revenues were generated, relationships with PA authorities improved and reporting of illegal activities increased; which partners attribute to "intrinsic incentives" – e.g., organization and recognition of community groups who participate in conservation.

# **ASSUMPTION**

Strong management of the community groups and their enterprises under agreements contributes to reducing poaching, retaliatory killing, illegal logging, overharvest harvest of NTFPs, and agricultural encroachment into PAs.

WHAT IS MEASURED & HOW Partners tracked government reports and conducted KIIs with park authorities and FGDs with enterprise participants to assess their perceptions of change in threats over time.

**KEY LESSONS** Partners reported less crop damage in increased forest protection. Community groups, incentivized by enterprise support, monitor and report threats.



# **ENTERPRISE TYPES**

- High value crops, such as chili and vanilla cultivation not palatable to wildlife
- Beekeeping and honey processing

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

# 11 Hall Charles

A reduction in threats and restoration contributes to biodiversity conservation

# **ASSUMPTION**

A decrease in human-wildlife conflict and illegal activities in buffers will support improved habitat and wildlife populations in PAs.

WHAT IS MEASURED & HOW Improved habitat and wildlife populations in buffers of PAs has not yet been measured

## **KEY LESSONS**

Tracking biophysical changes will require building partnerships with agencies to support broader landscape-level monitoring.

Harvesting honey from an apiary along the boundaries of a central forest reserve © AFRICAN WILDLIFE FOUNDATION

# ZAMBIA





# ENTERPRISES THAT CHANGE POACHERS INTO FARMERS COMMITTED TO CONSERVATION

**Conservation Enterprise Approach** From 2012-2017, USAID supported Community Markets for Conservation (COMACO) an organization that supports wildlife conservation in eastern Zambia by providing training to small-scale farmers in sustainable agricultural practices and alternative livelihood opportunities for illegal wildlife poachers. COMACO turns their

Support conservation enterprises

## ASSUMPTION

COMACO organizes members into producer groups, which are accredited to a cooperative, and provides technical assistance to former poachers who sign a "conservation pledge" in farming using nitrogen enhancing trees, organic fertilizers and practices in minimum tillage.

Enabling conditions are in place to support sustainable enterprises

## ASSUMPTION

The enabling conditions are in place for poachers to become farmers as part of a producer group.

## WHAT IS MEASURED & HOW

COMACO tracked the number of lead farmers trained, producer groups formed, farmer cooperatives formed and registered, and the total number of individual farmer members; % increase in food crop yields; % of farmers engaged in more than 3 income activities other than farming (e.g., beekeeping, livestock); % of farmers producing 3 or more food crops per year.

## **KEY LESSONS**

Farmers trained had increased yields and were engaged in more than 3 income activities and producing more than 3 food crops per year.

Peanut butter is one of the products sold by It's Wild. © COMACO (itswild.org)

Jassiel M'soka, David Arnaldo Mijan, Jeremy Boley, Harry Ngoma, Catherine Lwando-Tembo

agricultural produce into high-value food products that are sold through-out Zambia under the brand It's Wild! This is in exchange for their commitment to conservation and illegal firearms and snares. This approach is aimed at reducing poaching in the national parks and game management areas.

# THEORY OF CHANGE

Enterprises provide stakeholder benefits

**ASSUMPTION** Household income and food security increases from increased yields. Chiefdom communities receive dividends for conservation efforts.

WHAT IS MEASURED & HOW COMACO tracked the % increase in average household incomes of members and the % of households that are food secure.

**KEY LESSONS** Did household income and household food security increase? Why are why not?

Benefits motivate and enable conservation attitudes and behaviors

# ASSUMPTION

As household income from enterprises increases, the need for poaching in protected areas will decrease. Farmers are also motivated to plant trees for chiefdom communities to receive conservation dividends.

WHAT IS MEASURED & HOW COMACO tracked the number of farmers adopting Sustainable Agriculture Land Management that provide carbon credit incentives.

**KEY LESSONS** Did farmers with increased average household income adopt Sustainable Agriculture Land Management? Why or why not?

ASSUMPTION Farmers no longer poach, and therefore there is a decrease in incidents of illegal poaching in protected areas.

WHAT IS MEASURED & HOW Are incidents of threats in protected areas monitored, and by whom?

**KEY LESSONS** Was there a decrease in incidents of poaching? Why or why not?



# **ENTERPRISE TYPES**

Farming crops such as nuts, rice, beans, soy and forest products such as honey that are processed and sold under the brand "It's Wild"

**Conservation behaviors of** stakeholders contribute to a reduction in threats (or restoration)

A reduction in threats and restoration contributes to biodiversity conservation

ASSUMPTION There is an increase in wildlife populations in protected areas.

WHAT IS MEASURED & HOW Are wildlife populations in protected areas monitored and by whom?

**KEY LESSONS** Was there an increase in wildlife populations? Why or why not?

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