



Part I: Project Information

GEF ID

10815

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Mainstreaming Biodiversity in Belize's Maya Golden Landscape

Countries

Belize

Agency(ies)

FAO

Other Executing Partner(s)

Ya'axch' Conservation Trust

Executing Partner Type

Others

GEF Focal Area

Biodiversity

Sector

AFOLU

Taxonomy

Threatened Species, Species, Biodiversity, Focal Areas, Tropical Rain Forests, Biomes, Productive Landscapes, Protected Areas and Landscapes, Terrestrial Protected Areas, Community Based Natural Resource Mngt, Forestry - Including HCVF and REDD+, Mainstreaming, Agriculture and agrobiodiversity, Strengthen institutional capacity and decision-making, Influencing models, Transform policy and regulatory environments, Demonstrate innovative approaches, Convene multi-stakeholder alliances, Indigenous Peoples, Stakeholders, SMEs, Private Sector, Individuals/Entrepreneurs, Community Based Organization, Civil Society, Non-Governmental Organization, Local Communities, Consultation, Type of Engagement, Partnership, Information Dissemination, Participation, Awareness Raising, Communications, Public Campaigns, Education, Behavior change, Beneficiaries, Gender-sensitive indicators, Gender Mainstreaming, Gender Equality, Sex-disaggregated indicators, Women groups, Gender results areas, Access to benefits and services, Knowledge Generation and Exchange, Access and control over natural resources, Participation and leadership, Capacity Development, Innovation, Capacity, Knowledge and Research, Adaptive management, Learning, Theory of change, Indicators to measure change, Targeted Research, Knowledge Generation, Training, Enabling Activities

Rio Markers

Climate Change Mitigation

Significant Objective 1

Climate Change Adaptation

No Contribution 0

Biodiversity

Principal Objective 2

Land Degradation

No Contribution 0

Submission Date

4/23/2021

Expected Implementation Start

4/30/2023

Expected Completion Date

4/30/2027

Duration

48In Months

Agency Fee(\$)

137,722.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	Mainstreaming of biodiversity across sectors, as well as landscapes and seascapes through the mainstreaming of biodiversity in priority sectors	GET	1,449,708.00	2,803,588.00
Total Project Cost(\$)			1,449,708.00	2,803,588.00

B. Project description summary

Project Objective

To mainstream biodiversity in the Maya Golden Landscape's key biodiversity areas (KBAs).

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Integrating conservation and production planning in KBAs	Technical Assistance	<p>Outcome 1.1:</p> <p>Forest reserve in KBA conserves biodiversity and promote sustainable production through ILM.</p> <p><u>GEF Core Indicator 1.2.</u></p> <p><i>Terrestrial protected areas under improved management effectiveness as measured by the GEF Management Effectiveness Tracking Tool (METT):</i></p> <p><i>i) Maya Mountain North Forest Reserve:</i> <i>Baseline: 61</i> <i>Target: 85</i></p> <p><i>ii) Golden Stream Corridor Preserve:</i> <i>Baseline: 74</i> <i>Target: 86</i></p> <p><i>iii) Bladen Nature Reserve</i> <i>Baseline: 70</i> <i>Target: 85</i></p>	<p>Output 1.1.1:</p> <p>Gender-inclusive & ethnic-sensitive ILM action plans developed for select forest reserve.</p> <p>Output 1.1.2:</p> <p>New National governance structures support biodiversity-friendly non-timber forest product (NTFP) use in forest reserves.</p> <p>Output 1.1.3:</p> <p>Community - supported monitoring system designed to support ILM conservation targets in forest reserves</p>	GET	415,128.00	1,188,060.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Strengthening Indigenous Peoples and local communities ? production systems to deliver positive impacts on biodiversity in KBAs	Technical Assistance	<p>Outcome 2.1:</p> <p>Indigenous Peoples and local communities implement biodiversity-positive production practices in forest reserves</p> <p><i>Project Indicator:</i> <i>Area (hectares) of landscapes under improved practices of sustainable production that supports biodiversity in forest reserve concessions.</i> <i>Baseline: 0</i> <i>Mid-term: 150 target</i> <i>Final: 368 target</i></p> <p>Outcome 2.2:</p> <p>Indigenous Peoples and local communities implement biodiversity-positive production practices in community zones to support income generating opportunities for both men and women</p>	<p>Output 2.1.1:</p> <p>Support to Indigenous Peoples and local communities in acquiring agroforestry and NTFP concessionary rights in forest reserves</p> <p>Output 2.1.2:</p> <p>Implementation of culturally sensitive biodiversity positive production practices in line with forest reserve concessions</p> <p>Output 2.2.1:</p> <p>Culturally sensitive and gender responsive trainings and technical implementation support delivered to Indigenous Peoples and local communities promoting biodiversity-positive farming and forest habitat conservation on community lands.</p> <p>Output 2.2.2</p> <p>Strengthened value-added production, business planning and market</p>	GET	773,680.00	1,215,528.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Knowledge Sharing and Project M&E	Technical Assistance	<p>Outcome 3.1: Project Knowledge is managed, systematized, and disseminated.</p> <p><i>Project Indicator: Number of forums, media platforms and documents on successful farmers? and community experiences, lessons learned, Indigenous Technical Knowledge, and best practices from biodiversity supported sustainable production practices, land use planning, integration of gender mainstreaming, others. are disseminated in the MGL Belize and internationally .</i></p> <p><i>Baseline: 0</i></p> <p><i>Mid-term: 3</i></p> <p><i>Final Target: 10</i></p> <p>Outcome 3.2: Monitoring & Evaluation strategy informs the project for</p>	<p>Output 3.1.1: Experiences, best practices, and lessons learned captured, exchanged, and made available through multi-stakeholder forums and various platforms to support use in forest reserves and production lands in the MGL and in landscapes elsewhere in Belize.</p> <p>Output 3.1.2: Project knowledge and lessons learned are systematized and monitored to support Project adaptive management.</p> <p>Output 3.2.1: Project monitoring and evaluation strategy carried out.</p>	GET	130,700.00	150,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Sub Total (\$)					1,319,508.00	2,553,588.00

Project Management Cost (PMC)

GET	130,200.00	250,000.00
Sub Total(\$)	130,200.00	250,000.00
Total Project Cost(\$)	1,449,708.00	2,803,588.00

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Other	Ya?axch? Conservation Trust	In-kind	Recurrent expenditures	400,000.00
Other	Ya?axch? Conservation Trust	Grant	Investment mobilized	1,100,000.00
Recipient Country Government	Forest Department	In-kind	Recurrent expenditures	150,000.00
Private Sector	Maya Mountain Cacao	In-kind	Recurrent expenditures	1,153,588.00
Total Co-Financing(\$)				2,803,588.00

Describe how any "Investment Mobilized" was identified

Investment Mobilized from Ya?axch? Conservation Trust is related to the development of the ongoing initiatives of the organization in the Mayan Golden Landscape during the project execution including the co-management of the protected areas targeted by the project and the work with local communities to raise awareness on the conservation of biodiversity and develop sustainable livelihood systems.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Belize	Biodiversity	BD STAR Allocation	1,449,708	137,722	1,587,430.00
Total Grant Resources(\$)					1,449,708.00	137,722.00	1,587,430.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)
PPG Required **true**

PPG Amount (\$)
50,000

PPG Agency Fee (\$)
4,750

Agenc y	Trus t Fun d	Countr y	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Belize	Biodiversit y	BD STAR Allocation	50,000	4,750	54,750.0 0
Total Project Costs(\$)					50,000.00	4,750.0 0	54,750.0 0

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
0.00	60,106.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDP A ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	60,106.00	0.00	0.00

Name of the Protected Area	WDP A ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Bladen Nature Reserve	12241	Strict Nature Reserve		40,468.00			70.00		

Name of the Protected Area	WDA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Golden Stream Corridor Preserve (GSCP)	301941	Protected area with sustainable use of natural resources		6,070.00			74.00		
Maya Mountain Forest Reserve (MMFR)	28850	Protected area with sustainable use of natural resources		13,568.00			61.00		

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
7566.00	34893.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
7,566.00	34,893.00		

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
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Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
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Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	4512195	6849616	0	0
Expected metric tons of CO ₂ e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	4,512,195	6,849,616		
Expected metric tons of CO ₂ e (indirect)				

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Anticipated start year of accounting	2021	2023		
Duration of accounting	20	20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	200	595		
Male	200	595		
Total	400	1190	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

1.a Project description

1) Global environmental and/or adaptation problems, main causes and barriers to consider (systems description)

Global Environmental Significance

Environmental Context

1. Belize is located on the Central American mainland, forming part of the Yucatan Peninsula, with a population of approximately 408,479 (2020)[1]¹. Belize borders the Caribbean Sea and lies between Guatemala and Mexico. Despite being a small country with a total land area of only 22,965 square kilometers (km²), of which 5% is distributed among more than 250 small islands or Cays, it harbours an immense wealth of biodiversity and natural resources including approximately 70 recognized ecosystems with more than 39% of its land area falling within its national protected areas system[2]².

2. Belize plays an important role in forest connectivity in the Mesoamerican Biological Corridor[3]³ which stretches from Mexico to Panama and is also part of the Northern Region of the Mesoamerican Biodiversity Hotspot (CEPF[4]⁴) that includes southern Mexico, Belize, and Guatemala. The country has retained an estimated 62.7%[5]⁵ of its land area in mature natural intact forest cover. Furthermore, Belize has two large, unified blocks of intact mature forest (Maya Mountains Massif (MMM) and part of the Selva Maya) that are recognized by the Government of Belize in its 2015 National Protected Area Systems Plan as regionally important for biodiversity conservation and forest connectivity. This Biodiversity Hotspot encompasses portions of Belize's Bladen Nature Reserve and contains one of the highest amounts of protected cloud forests in Central America. These forests are of particular importance for species that require large, undisturbed areas for their long-term survival, such as the Jaguar *Panthera onca*, long recognized as a conservation symbol of Belize.

3. Belize's wealth of biodiversity includes 68 ecosystems, 1,014 native species of vertebrates, including 150 species of mammals, 540 species of birds, 151 species of amphibians and reptiles, nearly 600 species of freshwater and marine fishes, 3,750 species of plants[6]⁶. IUCN Red-listed Globally Threatened bird species include the Endangered Black Rail *Laterallus jamaicensis* and Yellow-headed

Amazon *Amazona oratrix*, and the Critically Endangered Central American River turtle (*Dermatemys mawii*) (?hicatee?) considered at high risk of extinction[7]⁷,[8]⁸. Amongst IUCN Red listed plant species for Belize includes the CR endemic *Gymnanthes belizensis*, listed in 2020), the EN *Zanthoxylum belizense* and the VU Big Leaf Mahogany *Swietenia*.

4. Belize has made significant efforts toward the conservation of its biodiversity and ecosystems, its main approach to biodiversity conservation has been through the creation and maintenance of the country's extensive terrestrial and marine protected areas system. Belize's primary IBA (Important Bird Area) and Key Biodiversity Area (KBA) [9]⁹ lie within the Maya Mountains Massif (MMM), an area of 646,852 ha that covers much of southern Belize and part of eastern Guatemala, encompassing part of Belize's Maya Golden Landscape, this Projects priority intervention sites. This area contains amongst the most intact tropical forests north of the Amazon, has a protected area coverage in Belize of 87%[10]¹⁰ and alone contains 13 ecosystems unique to Belize. Furthermore, Belize has retained 39.1% of its total land area in mature forest cover within its National Protected Area System of 113 protected area units[11]¹¹. With the country's expansive forest cover, the protected areas of Belize are important providers of ecosystem services. The MMM is the headwaters of 16 watersheds, provides water to 55% of Belize's landmass and over 128 communities in Belize and 180 in Guatemala[12]¹². The intact broadleaf forests of the coastal lowlands further play an important role in rainfall catchment and for refilling the country's aquifers, and for maintaining forest connectivity in southern Belize.

5. The Project's intervention area is the **Maya Golden Landscape (MGL)** of which the Bladen Nature Reserve, The Golden Stream Corridor Preserve and the Maya Mountain North Forest Reserve are the priority areas of intervention within the protected areas (Table 1), as well as the intervening Community Zones (Table 2). The MGL forms the primary southern biological corridor of Belize, and the only remaining broadleaf forest link between the protected montane and sub-montane rainforest of the Maya Mountains and the lowland broadleaf and coastal forests through an intervening agroecosystem. This region also plays a role on both a national and regional scale as part of the Mesoamerican Biological Corridor[13]¹³. The MGL is a 311,610 ha (2019) mosaic landscape of that covers approximately 67% of southern Belize's Toledo district (Figure 1). As of 2016, a total of 75% of the MGL remained in mature forest[14]¹⁴. MGL is also part of Mesoamerica's Selva Maya which is the second largest remaining tropical rainforest in the Americas after the Amazon.

6. Nearly fully contained within the KBA, the MGL rich biodiversity includes migratory species and hosts more than 93 species of mammals, 337 species of birds, 92 species of amphibians and reptiles, nearly 20 species of freshwater fishes, high numbers of invertebrates, and vascular plants. This rich assemblage of terrestrial biodiversity also includes threatened populations of IUCN Red List

of Threatened Species[15]¹⁵ such as the Jaguar *Panthera onca*, Geoffrey's spider monkey *Ateles geoffroyi* (EN), Yucatán Black Howler Monkey *Alouatta pigra* (EN), Baird's tapir *Tapirus bairdii* (EN), White-lipped Peccary *Tayassu pecari* (VU), Geoffrey's Spider Monkey *Ateles geoffroyi* (EN), Yellow-headed Amazon *Amazona oratrix* (EN), Great Curassow *Crax rubra* (VU), and the Central American river turtle *Dermatemys mawii* (CR).

7. While the majority of the MGL is covered by a series of PAs (~75%) of varying designations[16]¹⁶ offering differing levels of protection under the National Protected Area System Act (NPASA) or the Forest Act, the mountainous and lowland ecoregions are interrupted by an intermittent band of lowland production lands and forests in Community Zones that lie outside the National Protected Area System (NPAS). Within the protected sites (Table 1), PA classifications of national parks, wildlife sanctuaries, and nature reserves have the highest level of conservation and protection whereas forest reserves permit licensed activities (concessions for logging, agroforestry, and non-timber forest product (NTFP extraction). There are no legal measures protecting forests or biodiversity in community zones, which cover approximately 76,420 ha, and in addition to a few private reserves, make up the remainder of the MGL. PAs are managed through formal co-management arrangements with the Forest Department and Belize service providers, primarily non-governmental organizations (NGOs and conservation trusts, including Ya'axch' Conservation Trust (YCT), this Project's Executing Partner. See Table 1 and Figure 1 (below) of the PAs within the MGL. Figure 1 also includes the 10 Indigenous communities in the Community Zones with whom the Project will be engaging (Table 2).

Socio-economic Context

8. Belize is a middle-income country, and as a small state, its economy is uniquely exposed to a set of external and internal factors[17]¹⁷. Its economy is highly vulnerable to different types of shocks, vulnerability stemming the economy's exposure to natural disasters as well as its economic structure[18]¹⁸. It is also among the most disaster-prone countries in the world, incurring average annual losses from adverse climate events and natural disasters equivalent to almost 4% of GDP[19]¹⁹: Agricultural and tourism industries, the two single largest sources of income and employment in Belize, strongly dependent on its natural resources base [20]²⁰. Tourism is primarily natural- and cultural-resource-based, with visitors focusing on inland protected areas (PAs), coastal marine areas, and archeological sites[21]²¹. Tourism employs 37.3% of the population and represents 41.3% of the country's GDP[22]²². In 2017, the agriculture sector accounted for 13% of GDP with crucial importance to poverty reduction and improving livelihoods. Recurring natural disasters and the effects of climate change have significantly impacted agricultural yields, food production, food prices, and the livelihood of the rural population (56% of total population in 2015) [23]²³. Approximately 38% of

Belize's total land area is considered potentially suitable for agriculture and livestock raising, though 7% (about 78,000 ha) is used for farming.

Table 1. Information on Protected Areas within the MGL.

Protected Area	Mgmt. Type	Legislation	Area	Management Agency
Payne's Creek	National Park	NPASA	12,819 ha.	Forest Dept. & TIDE
Rio Blanco	National Park	NPASA	40 ha.	Rio Blanco Maya Association
Sarstoon-Temash	National Park	NPASA	16,956 ha.	Forest Dept. & SATHIM
Agua Caliente Luha	Wildlife Sanctuary	NPASA	2,223 ha.	Forest Dept.
Cockscomb Basin	Wildlife Sanctuary	NPASA	8,093 ha	Belize Audubon Society
Bladen	Nature Reserve	NPASA	40,468 ha	Forest Dept. & Ya'axch' Conservation Trust
Columbia River	Forest Reserve	Forest Act	41,658 ha	Forest Dept.
Deep River	Forest Reserve	Forest Act	31,797 ha	Forest Dept.
Machaca Creek	Forest Reserve	Forest Act	1,520 ha	Forest Dept.
Mango Creek	Forest Reserve	Forest Act	14,386 ha	Forest Dept
Maya Mountain	Forest Reserve	Forest Act	13,568 ha	Forest Dept. & Ya'axch' Conservation Trust
Swasey Bladen	Forest Reserve	Forest Act	5,989 ha	Forest Dept. & Woodstop Ltd.

Golden Stream Corridor Preserve	Private Reserve	NPASA	6,070 ha	Ya?axch?? Conservation Trust
Boden Creek Ecological Reserve	Private Reserve	None	3,076 ha	Belize Lodge & Excursions

*Source: Belize Forest Department, 2003 & Ya?axch? Conservation Trust, 2020

Note: Highlighted (blue) are Project prioritized PA intervention sites, also managed by YCT

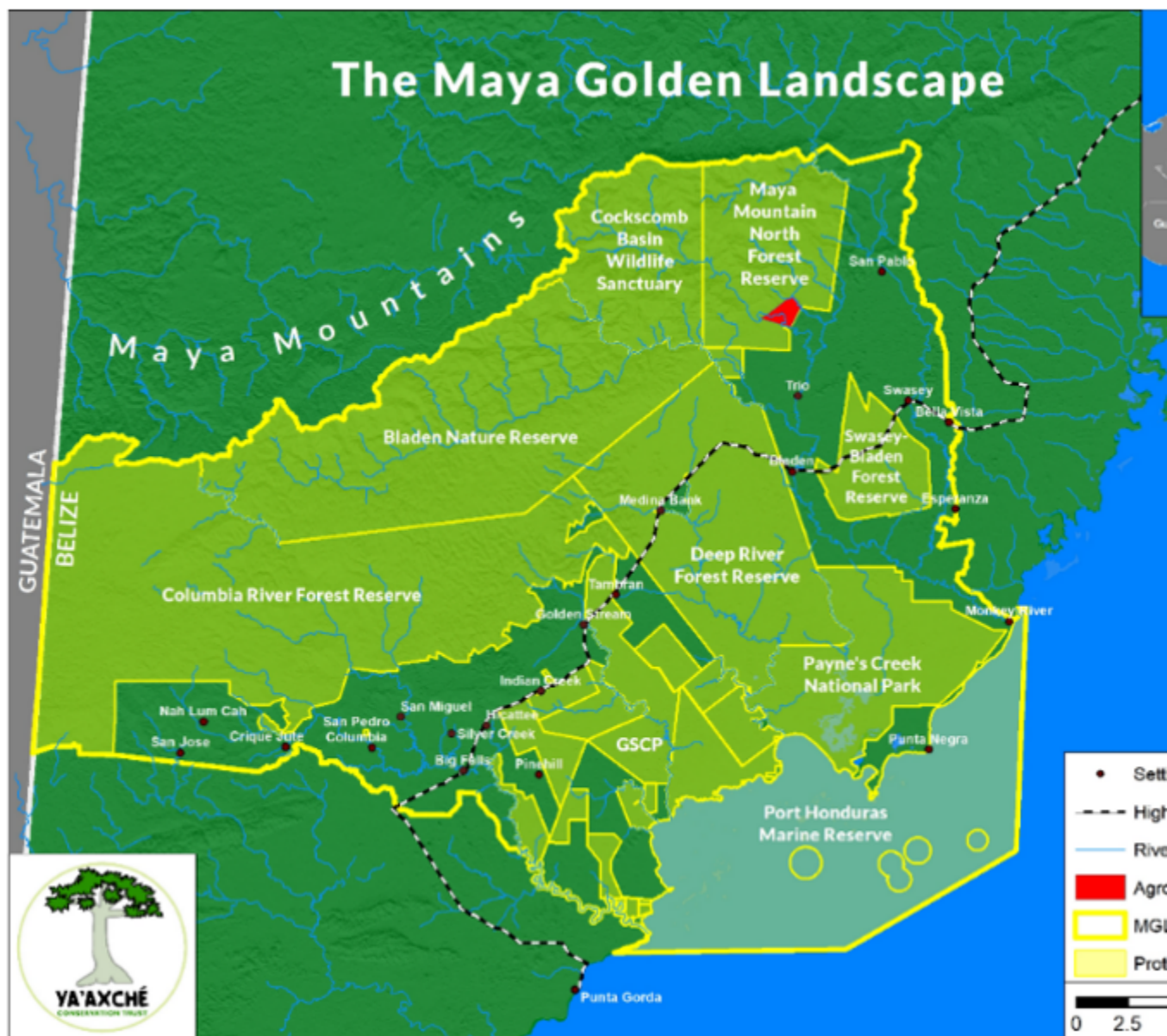


Figure 1. Detailed MGL Map of Protected Areas and Community Zones with communities indicated[24]²⁴.

9. With a per capita income of \$4,906, the World Bank considers *Belize* an upper-middle income country. Despite this, the percentage of the country's population of living in poverty increased from 41% in 2009 to 52% in 2018[25]²⁵. In the urban areas, poverty rates increased approximately 15%, from 28% in 2009 to 43% in 2018. Poverty in rural areas remained significantly higher throughout this period, from 55% (2009) to 59% (2018). The country's highest poverty rate remains in the Toledo District, most recently (2018) estimated at 82%, and increased from 58.7% in 2009, with an indigence rate recorded at 30%[26]²⁶.

10. The National Forest Policy of Belize (2015)[27]²⁷ acknowledges the fact that in 2007, the Supreme Court of Belize ordered the Government of Belize (GoB) to recognize indigenous land rights, demarcate and title their land, and cease and abstain from interfering with their right to property. In 2013, the Belize Court of Appeals affirmed indigenous land rights, and further clarified that Maya of Toledo possessed rights to land and resources in Southern Belize based on their longstanding use and occupancy. This is binding for the Government of Belize and representatives of the Maya Leaders Alliance (MLA). Based on the court rulings, the Forest Policy recommends, amongst others, that the Government adopt the principle of free, prior, and informed consent (FPIC) on all matters pertaining to forestry and forest management. The Forest Policy also indicates that the GoB will ensure that women, youth, and poor people are beneficiaries in the development of the forest sector, recognizing the marginalized sectors of society are frequently the most dependent on forest resources for their livelihoods[28]²⁸.

Socioeconomic Information for Communities of MGL:

11. A total of seventeen communities falls within the scope of MGL (Table 2). These communities, dominated by Indigenous Maya peoples, are situated within Toledo, the southernmost administrative district of Belize. Toledo has 10% of the total population and overlaps with the southern boundaries of the MGL and portion of the Maya Mountain Massif/Selva Maya. Toledo has a population density of approximately 7 persons per km², a relatively sparsely populated district with a total of 50 villages (Government of Belize and Caribbean Development Bank, 2010).

12. Toledo's unemployment rate was estimated at 13% in 2009 with half of the total employment focussed on agriculture (42%) and some elementary occupations. Agriculture is mainly based on the milpa farming system, typically using slash-and-burn and contributing to a transient modality of land use. Cash crops include rice, beans, and corn where cultivation is primarily for subsistence. Most

community members would provide corn and beans on the family table through the maintenance of family farm, a practice that forms the foundation of daily life. However, there exists a link to do subsistence farming as the source of the traditional, and ideal, food while balancing financial needs[29]²⁹. Most recently, cocoa production has contributed to the livelihood of communities, coupled with off-farm work in banana and citrus farms, and small-scale trading. The socio-economic development of the district has remained relatively low due to its location, dispersed population, low agricultural productivity, and limited market options to buy and sell products.

13. Overall, poverty in Belize increased substantially from 2002 to 2009 with 16% of the population poor. In rural households, 62% of the houses were overcrowded with the lowest ownership rate per item. Household poverty rate for Toledo was 8.9% all poor and 37.5% indigent while the minimum cost daily food basket for a male in Toledo was \$6.12 per day in 2009. The rural communities of Toledo having the highest indigence rate where 10.7% were considered poor while 49.7% indigent. Thus, Toledo ranked the poorest district with level of severe poverty as highest in the country.

Communities in the MGL

14. The communities of the MGL are administered by village councils which are local government authorities. In addition, in the Maya dominated communities, the Alcalde System is practiced and typically both entities would work collaboratively. Each community has a water board who administers the management and operations of the water system. A few community-based organized groups work within the villages and includes women's groups, cooperatives, and associations. Indian Creek Village, a buffer community of Golden Stream Corridor Preserve, has four women's groups while Trio and San Jose have farmers association and a cooperative. Community development initiatives are mostly focussed on agricultural and ecotourism-based ventures and includes bee keeping, cocoa agroforestry, rice, cattle ranching, pig and poultry rearing, cultural and eco-farm tours. In a socioeconomic assessment conducted with the community of Trio, respondents indicated a high interest in alternative livelihoods as sources of income, development of community, learning new skills, improved lifestyles, financial stability, more investment, increased productivity and efficiency, and poverty reduction. Overall, the community stated there is a need for better employment opportunities and increase income levels of the households[30]³⁰.

Table 2. Communities and population of the Maya Golden Landscape[31]³¹. Blue indicates communities with whom the Project will be engaging.

		Demographics					
	Communities	Males	Females	Total	Households	Area (ha)	Livelihood

1	Bella Vista	1802	1706	3508	827	24281	Subsistence farming; cattle ranching; Tourism employments (tour guides/resorts); banana, shrimp, coconut farms
2	Big Falls/Hicatte	412	433	845	169	10117	Subsistence farming/climate-smart agriculture, cacao agroforestry, beekeeping, cattle ranching; Ecotourism; Rice; Tourism employment (tour guides/resorts) Citrus, sugar cane
3	Bladen	247	219	466	110	304	Subsistence farming/climate-smart agriculture, cacao agroforestry, beekeeping; Tourism employment (tour guides/resorts), Banana farms
4	Crique Jute	101	121	222	50	121	Subsistence farming; cacao agroforestry, Beekeeping
5	Golden Stream/Tambran	349	363	712	117	223	Subsistence farming, climate-smart agriculture, cacao agroforestry, beekeeping; Ecotourism

6	Indian Creek	377	344	721	134	1214	Subsistence farming/climate-smart agriculture, cacao agroforestry, beekeeping, cattle ranching; Ecotourism; Tourism employment (tour guides/resorts)
7	Medina Bank	109	128	237	34	4856	Subsistence farming, climate-smart agriculture, cacao agroforestry, beekeeping, cattle ranching
8	Monkey River	98	98	196	37	202	Fishing and tourism
9	Na Lum Cah			66		809	Subsistence Farming (corn, beans), cacao, cattle ranching
10	Pine Hill	104	101	205	39	4047	Large-scale farming
12	San Jose	403	446	849	175	12141	Subsistence farming, climate-smart agriculture, cacao agroforestry, beekeeping, cattle ranching
13	San Miguel	267	270	537	96	1821	Subsistence farming, climate-smart agriculture, cacao agroforestry, cattle ranching; ecotourism
14	San Pablo	127	123	250	40	607	Subsistence farming, climate-smart agriculture, cacao agroforestry, beekeeping, cattle ranching; Ecotourism

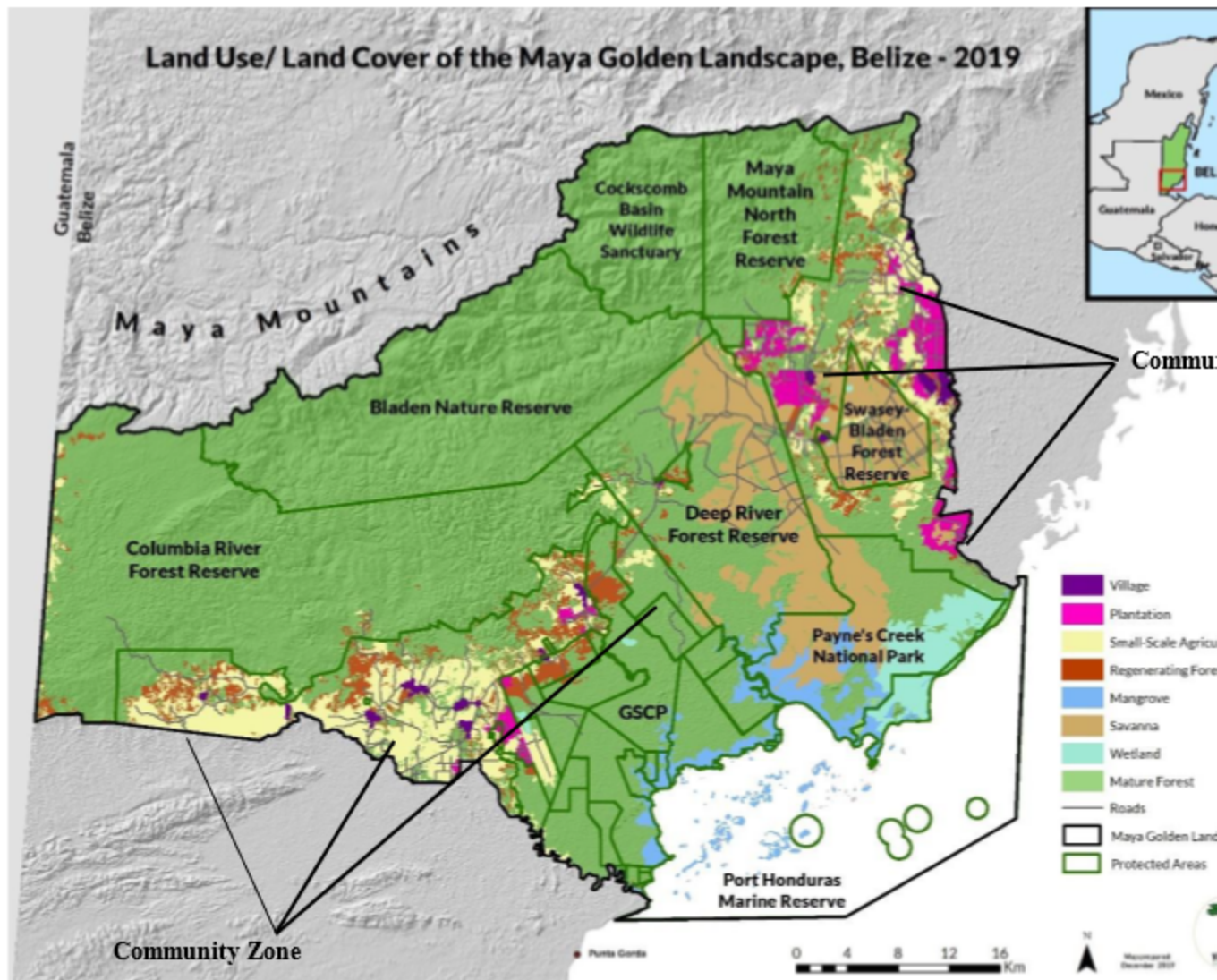
15	San Pedro Columbia	875	828	1703	317	30351	Subsistence farming; cattle ranching; rice; ecotourism; cacao agroforestry
16	Silver Creek	245	231	476	83	1012	Subsistence farming, climate-smart agriculture, cacao agroforestry, beekeeping, cattle ranching; Ecotourism
17	Swasey	146	111	257	69	2023	Subsistence farming, cattle ranching; banana plantations
18	Trio	481	418	899	188	16187	Subsistence farming, cacao agroforestry, pineapple, cattle, plantains, citrus, vegetables
19	Cowpen			1042		4047	Banana farming
20	Red Bank			1201		20234	Large scale agriculture, eco-tourism, cacao, and fruit trees farming
	TOTAL	6143	5940	12083	2485	0	
21	Aguacate			369	59	20234	Subsistence farming, cacao, eco-tourism, cattle, rice

Agriculture in the Toledo District and the Mayan Golden Landscape

15. Belize's most southern state, the Toledo District's population is approximately 10% of Belize's population, or 31,000 persons (2009). Its rural population is very dispersed over a wide area in over 50 villages with an exceptionally young population with 43% being under the age of 15 compared with 34% nationally^[32]³². Agriculture accounts for over 42% of the employed population compared with 16% nationally and remains the district's predominant economic driver followed by a small

mining sector and an emerging tourism sector. Cultivation is predominantly small-scale based on the Mayan milpa system, a system of rotation agriculture which the Mayans have developed over the centuries. The main crops are black beans, rice and corn grown mainly for subsistence. Its distance from markets, dispersed population, and low agricultural productivity, compounded by an absence of local market towns to buy and sell goods, have led to a low level of socio-economic development, and resulted in the high levels of poverty, poor quality housing and health conditions below the National average[33]³³.

16. Within the Toledo District, the Maya Golden Landscape Community Zones (Figure 2.) are home to a population of approximately 30,000 people, of which 90 percent are Maya Indigenous People and half women, who sustain their livelihoods primarily through traditional ancestral land use farming and livestock activities. These zones are considered Indigenous Peoples community and production lands, where the Maya of Toledo possess the legal rights to these lands and their resources (see Para 9, above)[34]³⁴. Livelihoods are sustained through a traditional ancestral land use form of subsistence farming system, referred to as 'milpa', which involves a slash-and-burn or slash-and-mulch techniques[35]³⁵, the predominant form of land management in the indigenous community zones. For centuries it has been a sustainable agriculture system, allowing fallowed areas to regenerate to mature forest, creating a variety of forest succession stages throughout the cultivation area, also supporting biodiversity and migratory routes[36]³⁶. This system can be considered sustainable as long as the population density is low with low demands for crop land, leaving sufficient time for the forest and soil nutrients to recover from temporary agricultural use. The slash-and-burn aspect of milpa farming, however, has recently (over the last 50 years) become less sustainable in combination with population growth, forest loss, climate change, soil degradation, and other factors[37]³⁷, [38]³⁸, [39]³⁹. Traditional milpa practices of slash-and-mulch and soil nutrient enrichment (nutrient cycling), agroecological practices that produce food in a more sustainable manner[40]⁴⁰, also take place within Mayan farming communities, though less frequently. Retaining forest cover is particularly relevant for forest connectivity in the community zones and between, as well as within, the Golden Stream Corridor Preserve (GSCP), the Bladen Nature Reserve and the Maya Mountain Forest Reserve (MMFR), the Project's intervention sites. The GSCP protects the only broadleaved forests linking the Maya mountains with the Toledo coastal plain[41]⁴¹.



Community Zone

Figure 2. Land Use/ Land Cover showing incursions into PAs from Community zones^{[42]⁴² in the Maya Golden Landscape, Belize (2019).}

Sustainable agricultural practices^{[43]⁴³ in Indigenous communities}

17. Traditionally, indigenous farmers in the Toledo District have a family farm or participate in keeping an extended family farm. Farming is a pivotal aspect of social life and growing crops such as

corn and beans for the family to consume is an expectation that exists in the communities as well as growing commercial crops such as cocoa[44]⁴⁴. Mayan communities rely on milpa farming system, typically using slash and burn, which contribute to a transient modality of land use. However, shortages of land coupled with increased population growth, has resulted in a need to adopt more sustainable approaches to farming particularly to ensure fertile soils and productivity[45]⁴⁵. Farmers are being faced with less time to fallow before it is re-cleared for planting.

18. Ya?axch? Conservation Trust's Extension officers have been able to understand the ecological knowledge and practices of Indigenous communities, including their social and economic values and fuse appropriate agroecological principles that are culturally appropriate and not foreign to farmers. Some Indigenous farmers are using cover crops such as *Inga spp.*, *Mucuna spp.*, *Kudzu spp.* to decrease the amount of time that they wait for a farming area to remain in fallow. The use of these cover crops eliminates the reliance on fire for land clearing. It also contributes to the reduction of soil erosion and loss of nutrients, contributing positively to the conservation of soil biodiversity. In addition, farmers are establishing cocoa agroforestry farms on a commercial scale, where the cocoa trees are coupled with fruit and timber trees and apiaries are built for honey production. For example, the agroforestry concession in the MMNFR has resulted in Trio Farmers Cacao Growers (TFCG) generating over BZ \$ 211,950 from the sale of wet cacao beans between 2018 and 2022. Other farmers who focus on growing vegetables, corn, beans and other root crops, there are preliminary evidence that black beans yields increase by 4 folds when cultivated in an inga alley cropping system as compared to a slash and burn area. This is attributed to the mulch which conserve moisture and adds nutrients such as nitrogen to the soil. This new approach to soil conservation however has not changed the traditional intercropping within the same plot of land. The indigenous communities in the MGL are establishing climate resilient farms by adopting new practices into traditional farming[46]⁴⁶.

19. In the Maya Golden Landscape, there are seventeen communities that rely on community zones for farming and protected areas such as forest reserves for food and housing materials. The monitoring of the land use changes and forest cover in the MGL indicates that there are annual fluctuations in clearing of mature forests, mainly due to the expanding agricultural frontier and escaped fires from traditional slash and burn farming. Over the past decades, farming techniques such as agroforestry, alley cropping, and the use of green manures have become more common in Maya communities. However, not to the extent in which land clearing has been significantly minimized[47]⁴⁷.

Biodiversity in the MGL Community Zones

20. **Biodiversity and community zones: agroforestry farms.** Indigenous communities in the MGL are adopting new sustainable agricultural practices, of which agroforestry is predominate, practices that are also biodiversity. Citizen science camera trapping supported by Ya?axche Conservation Trust on Indigenous community agroforestry farms, distribute through a mosaic landscape of forest patched, farmlands and communities, yielded high species richness and abundance index of species in both the wet and dry seasons (2020/2021). Biodiversity monitoring on 19 agroforestry farms from 9 communities in the 2020/2021 wet/dry seasons respectively, yielded 97

species, which included 26 mammals, 63 birds, 7 reptiles and 1 amphibian and 6 species of conservation concerns including the Baird's Tapir *Tapirus bairdii*, Jaguar *Panthera onca*, Jaguarundi *Puma yagouaroundi cacomitli*, Margay *Leopardus wiedii*, Ocelot *Leopardus pardalis*, and the Great Curassow *Crax rubra*. The frequency of detection distribution and of wildcats and prey species across the farmlands reflected healthy forest patches^[48]⁴⁸ within these farms as well as the importance of contiguous forest cover for species movement.

21. **Biodiversity and ecosystems of the protected areas: Priority areas of intervention** (Bladen Nature Reserve, Maya Mountain North Forest Reserve and Golden Stream Corridor Preserve). See [Annex E](#) for additional detailed ecosystem and biodiversity information.

Bladen Nature Reserve^[49]⁴⁹

22. The Bladen Nature Reserve, referred to nationally as the "crown jewel" of Belize's Protected Areas, is considered one of the most biodiversity rich and geographically unique areas within the Mesoamerican Biological Corridor (Figure 3). The BNR (40,468 ha) is found within the of the Maya Mountains Massif KBA/IBA, identified as one of the most important blocks of protected areas within Belize and the Mesoamerica Biodiversity Hotspot. Twenty ecosystems are identified within BNR^[50]⁵⁰, and in 2020 had 99.8% of its land mass under natural forest cover. The remaining 0.2% comprises ecosystem and some areas of natural change along the banks of the Bladen Branch River. Within 4 permanent plots established within the BNR, a total of 65 plant families and 227 species have been recorded of which 24 species are considered notable species due to their rarity, restricted distributions, and/or ecological importance^[51]⁵¹. BNR contains the highest biodiversity nationally with 93 species of mammals, 337 species of birds, 92 herptiles, 85 mollusks, and 19 fish species.

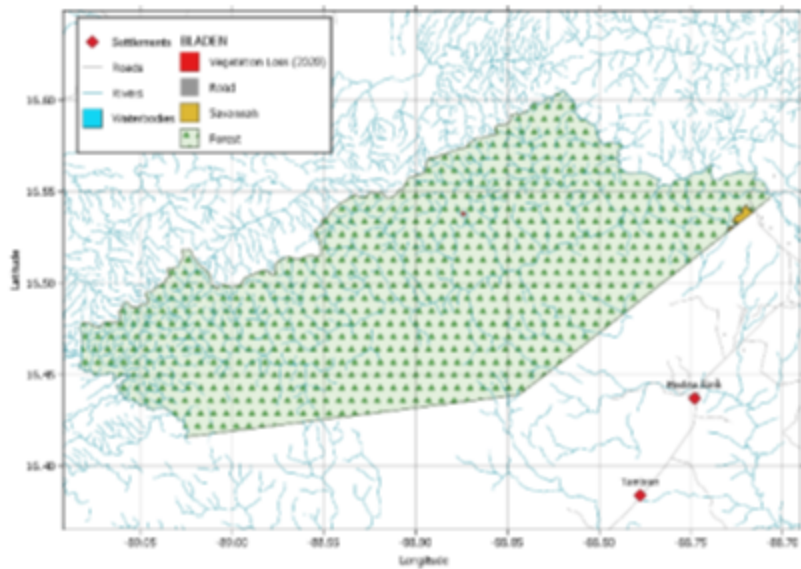


Figure 3. Land Use Map of the BNR

Golden Stream Corridor Preserve^{[52]⁵²}

23. The GSCP (Figures 4,5) is a highly intact protected area, retaining 97% of its land mass (6070 ha) under natural forested vegetation. The remaining 3% of the land mass includes road access, wetlands, and open spaces near and around the Golden Stream Field Station. This PA is patrolled regularly by YCT field staff due to its accessibility and has resulted in deterring any incursions for land clearing within its boundaries, with a sustainable use area ensuring livelihoods are supported through sustainable extraction of NTFPs. This site also is protecting the last remaining forested link between the globally biodiverse Maya Mountains and the coastal lowland forests which connects to Guatemala and the Mesoamerican Biological Corridor, thus is critical to species including the endangered Baird's Tapir (*Tapirus bairdii*) and the Yucatan Black Howler Monkey (*Alouatta pigra*). It also protects important archaeological sites containing remains of ancient human civilizations and Pleistocene mammals. **There are 17 ecosystems located within this PA.** A total of 156 plants species, 671 fauna species have been identified within GSCP, which includes 354 bird species, 142 mammals, 124 reptiles and 26 amphibians.

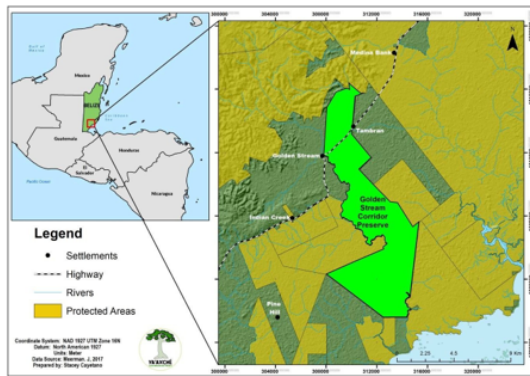


Figure 4. Location of the GSCP

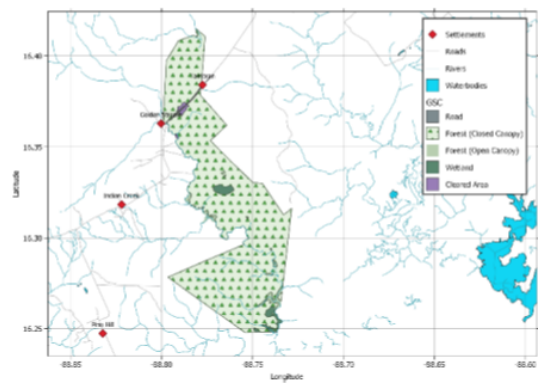


Figure 5. Land Use Map of the GSCP

Maya Mountain North Forest Reserve[53]⁵³

24. The MMNFR forms a vital part of the Maya Mountain Massif (MMM) with important protection of ecosystems only found within the MMM. The forest reserve has also been identified as Key Biodiversity Area (KBA) and ranked in the top 20% of Belize's Protected Areas as a conservation priority of the 56 assessed Protected Areas within the National Protected Area System of Belize (Figure 6). The Petén-Veracruz Moist Forest ecoregion is present in MMNFR with 6 major ecosystems and their subcategories present within the area. Throughout the range, the Petén-Veracruz Moist Forest forms a matrix of moist tropical forest, bajo, wetlands and riparian habitats, with species-richness high though low number of endemics.

25. A rapid assessment of the avifauna of the MMNFR was conducted in late 2017. A total of 154 species were recorded within the reserve though primarily within the agroforestry concession, which only covered a small portion of the forest reserve. Additional data is essential and broader data collection is incorporated into this Project to inform conservation decision making and management planning. A preliminary analysis places the number of mammal species within the MMNFR at 25 for the rainy season in 2019. Of particular importance is the presence documented of Belize's 5 wild cat species documented within the MMNFR including within developed areas of the agroforestry concession. These are the Jaguar *Panthera onca*, Jaguarundi *Puma yagouaroundi cacomitli*, *Puma concolor*, Margay *Leopardus wiedii* and the Ocelot *Leopardus pardalis*. White Lipped Peccaries (IUCN Red-listed VU) were also documented in this analysis and have in recent years experienced rapid population decline due to habitat degradation and loss. In addition to birds and mammals, biodiversity documentation specific to the MMNFR on amphibians, reptiles, herpetofauna are lacking.

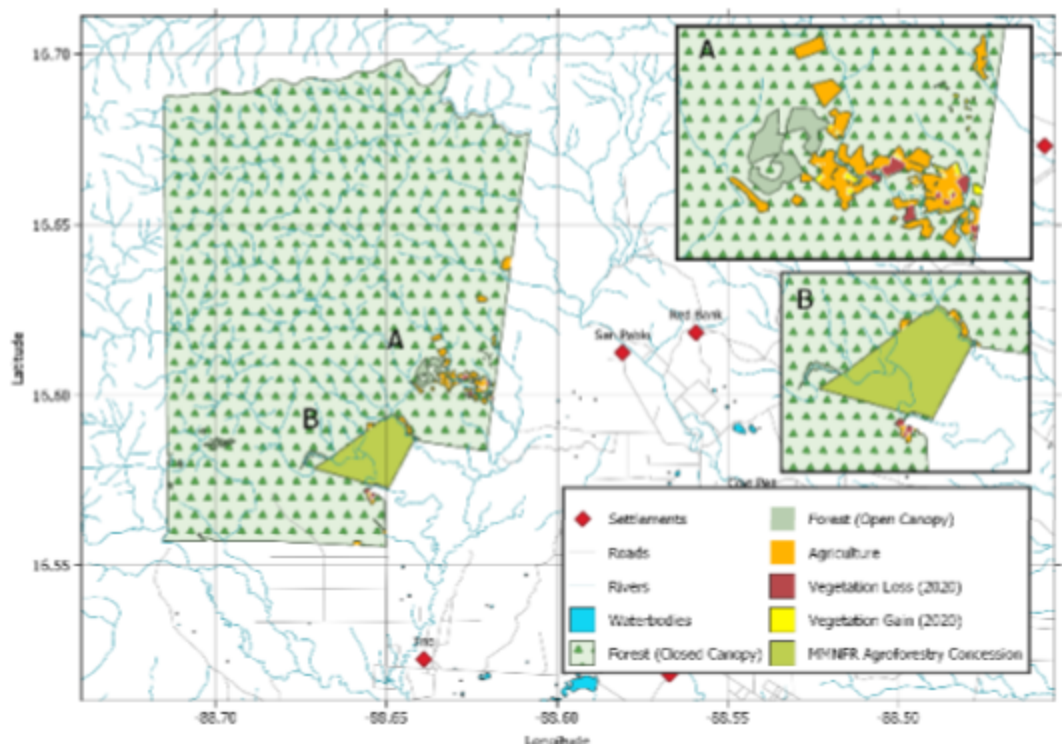


Figure 6. Land Use Map of the MMNFR

Global Environmental Problem

26. The socio-economic well-being of Belize's people and the nation's economy is natural resource based, with tourism, fishing and agricultural sectors linked to the health of biodiversity and the maintenance of ecosystem services[54]⁵⁴. While Belize's conservation efforts have managed to preserve its forests and biodiversity to a great extent, the country still faces significant challenges to reduce deforestation and promote sustainable use, particularly in production lands. The highest terrestrial threat to biodiversity is habitat loss and fragmentation resulting from **land use change (deforestation and ecosystem degradation)**. Deforestation in Belize is driven primarily by **agricultural expansion** (Figure 7), which increases with population growth[55]⁵⁵. Belize lost 17.4% of its forest cover over 30 years (1980-2010), an annual deforestation rate of 0.6% and total cover forest loss of 257,347 ha[56]⁵⁶. Forest cover in Belize has continued to decrease from 72.90% in 1989 to 61.64% in 2012 and predictions indicate declines will continue[57]⁵⁷. A deforestation rate approached

1% between 2013-2014 with population growth and an expanded human footprint[58]⁵⁸. Predictive modeling clearly illustrates this change for the Maya Golden Landscape (Figure 7)[59]⁵⁹.

27. Belize is recognized as one of the most **vulnerable countries to weather hazards and climate variability** (from El Niño Southern Oscillation)[60]⁶⁰. According to the ND-GAIN index (2017), Belize has a moderate to high vulnerability to weather related extremes (ranked 123 out of 181 countries), and climate change is expected to have irreversible losses to Belize's economy. Projected impacts on agriculture, forestry and ecosystems include impoverishment of crops in the warmest regions due to increasing heat-stress conditions and more frequent insect infestation as well as higher risk of uncontrolled fires[61]⁶¹. An estimated 33,129 ha burned in 2010, 2011 and 2012, when Belize experienced a **severe drought** and **extensive forest fires**. Extreme rainfall events lead to crops damage, soil erosion, and soils saturated with water making it difficult to cultivate the land. See ProDoc Section 5 (Risks) for the Climate Risk Screening Report information.

28. Additional threats to Belize's terrestrial and freshwater biodiversity also include the **unsustainable and illegal exploitation of forest resources** (hunting, logging, and non-timber forest products), the use fire as a land-clearing tool for crop cultivation and pasture management, unsustainable use of freshwater resources (overexploitation of surface and groundwater supplies), **pollution** (agrochemicals, industrial/urban effluent, solid waste, sewage, sedimentation), unsustainable tourism practices (exceeding guide/visitor ratios, exceeding limits of acceptable change), transboundary incursions, and climate change.[62]⁶² The agricultural sector is the second largest importer and user of chemicals (pesticides and fertilizers)[63]⁶³ and a significant contributor to pollution as well as unsustainable agricultural practices which have been primarily responsible for riparian and steep slope deforestation and degradation[64]⁶⁴.

29. Within the MGL, **increasing population size, high levels of poverty and reliance on small scale agriculture for livelihoods** has led to deforestation in the community zones and incursions within the forest reserves, including clearing for agriculture. A reduction of traditional fallow periods during milpa farming has led to decreased forest regeneration and decreased soil productivity. Increasingly, Indigenous communities are faced with choosing between production priorities and biodiversity conservation. In community zones and with rapid population growth, the maturing youth are faced with a scarcity of land for agriculture and are forced to either farm on land degraded by slash and burn agriculture or to clear more mature or secondary forest in or outside of a protected area. Furthermore, as the village population grows, new farms are established further from settlements. Women engaged in farming need to walk further distances to get to new farmland, this reduces the time to care for the children and decreases their overall daily productivity.

30. While the PA system throughout Belize has shown to be effective in protecting forests, forest loss continues predominantly outside the more protected national parks, wildlife sanctuaries and nature reserves. Between 2010-2012 a deforestation rate within PAs was 0.25% while outside PAs was 0.84%^[65]⁶⁵. However, within the Maya Golden Landscape, the majority of forest cover decline takes place primarily in forest reserves and community zones. Between 1991 and 2014, declines in forest coverage from 89.22% to 78.38% were documented in the Colombia River Forest Reserve^[66]⁶⁶, with similar rates due to land use changes in adjacent forest reserves outside the MGL^[67]⁶⁷, with future estimates predicting increasing trends of deforestation (Figure 7).

31. Significant deforestation had occurred in the southeast corner of the Maya Mountain North Forest Reserve (MMNFR) in two main areas now the 2006 and the 2015 de-reserved zones. This was a result of no formal forest reserve management or monitoring and took place prior to co-management arrangement formalized between the GoB and YCT (2015). Yaxchilán took over management of this reserve in 2015 in an effort to decrease illegal incursions, restore degraded areas, and to ensure responsible and legal community access to multi-use the forest reserve. Prior to 2015, the areas of the MMNFR (now de reserved) included a logging concession and although legal, its improper management (no management plan, sustainability plan, licensed revoked due to infractions) led to unregulated uses, degradation and forest loss including from agricultural production, forest fires from slash and burn clearing. This logging concession was revoked by the FD in 2015. This unregulated use is reflected in the deforestation exhibited in this area prior to 2015^[68]⁶⁸, and subsequently, where remaining mature forest cover in the 2006 de reserved zone was only 50% (Figure 7, 8). A further 2090 ha of secondary forest cover was cleared between 2014 and 2016, the majority of which was within the community zones adjacent to these de reserved areas.

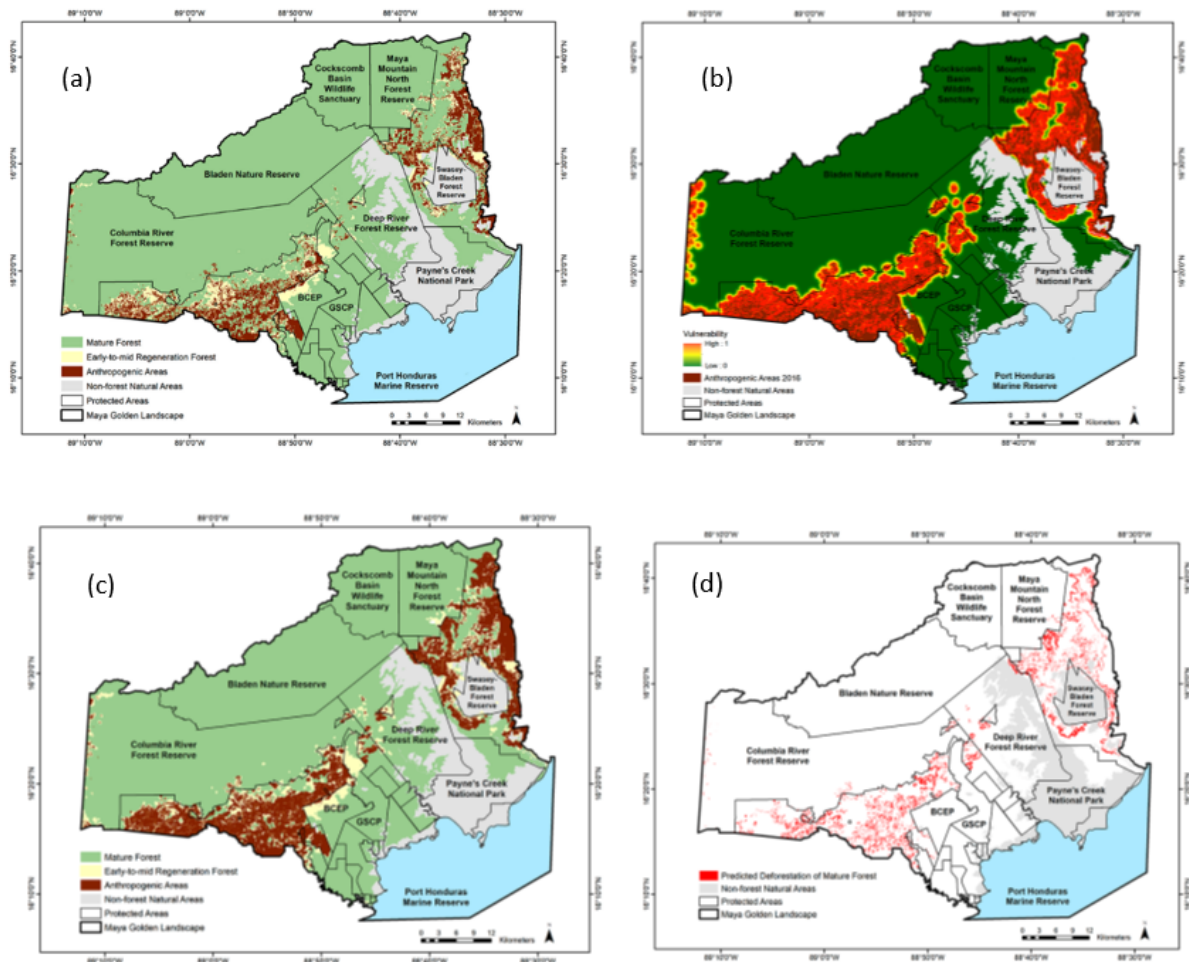


Figure 7. (a) Land classification of the Maya Golden Landscape in 2016. Non-forest natural areas include savannas, wetlands, large bodies of water, and mangroves. (b) Vulnerability to future deforestation, higher values represent higher vulnerability. (c) Forest cover and anthropogenic areas predicted for 2026 (d) Predicted deforestation of mature forest for 2016-2026

32. Since active management began by YCT, annual forest loss within the MMNFR is only 0.11% (2016) in contrast to the 2015 de reserved zone where for the same year, the deforestation rate rose to 4.35%. Overall, deforestation within PAs (0.04%) was also significantly lower than in adjacent indigenous community production lands, where annual forest loss was 0.9% (2016-2017)[69]⁶⁹. Belize's first agroforestry concession for livelihoods and conservation was obtained by YCT from the Forest Department for this degraded section of the MMNFR, which lies immediately within the boundary of the MMNFR, and adjacent to, these de reserved zones (Figure 8). This location chosen to create a buffer from incursions from the de reserved zones, and to replace cleared degraded areas within the boundaries with forest cover through sustainable agroforestry production, supporting livelihoods of adjacent indigenous communities and, with increased livelihoods supported, it was also reducing continued forest clearing for agriculture in those community zones. According to Belize's National Determined Contributions (2021-2030), maintaining forest loss outside of protected areas

below 0.6% annually, in line with the REDD+ strategy, could deliver an additional 24 MTCO₂e in avoided emissions[70]⁷⁰.

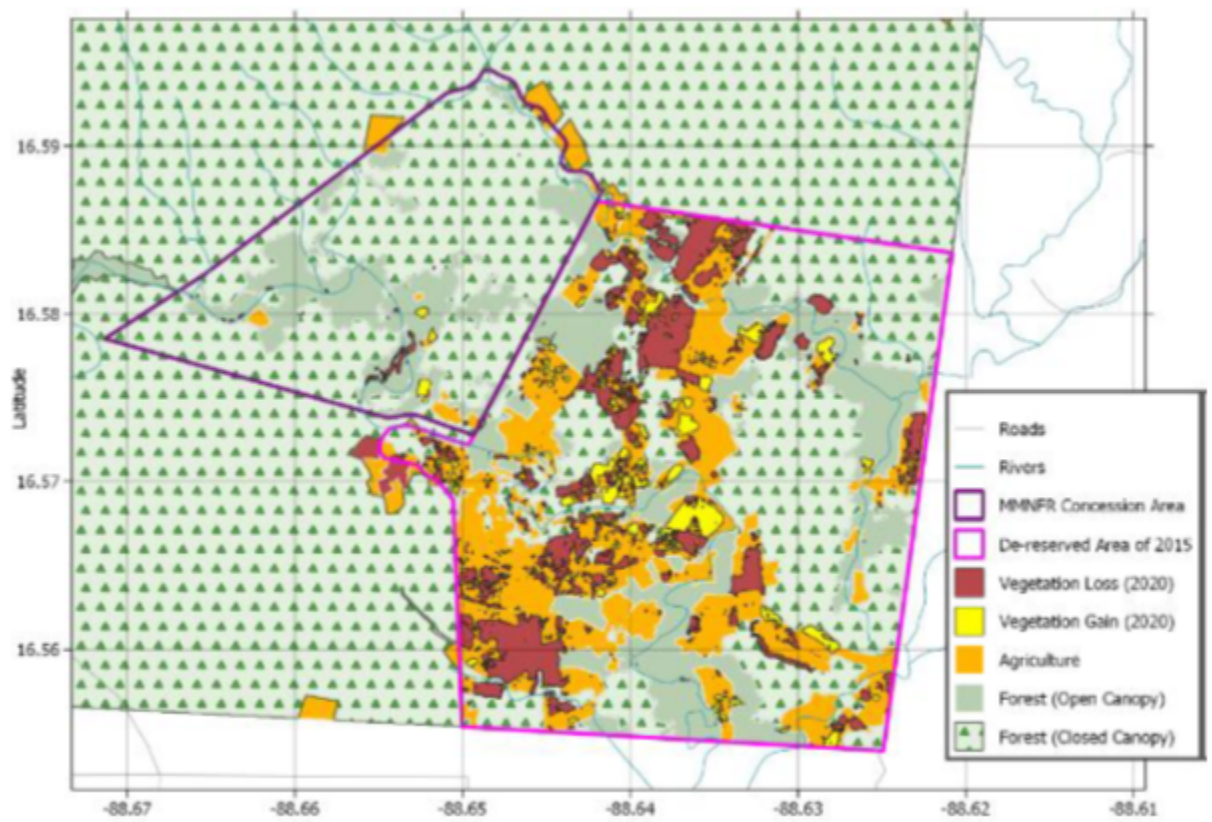


Figure 8. Land Use Map for the Agroforestry Concession in MMNFR. Ya'axche Conservation Trust 2020

33. Despite existing efforts for the conservation of Belize's forests and its biodiversity, the sustainable use of its forest resources and the reduction of land degradation both within protected areas and community lands, challenges persist. The relationship between the indirect and direct drivers of deforestation and biodiversity loss in the MGL are accelerating forest loss. Population growth and insufficient availability of production lands in community zones has resulted in unsustainable changes to the traditional slash-and-burn aspect of milpa farming (reduced fallow periods, increased soil degradation and reduced productivity) and to increasing forest loss so as to provide for new production lands (in community zones and forest reserves), with climate change exacerbating degradation (including from forest fires). To address these drivers, the Project proposes a long-term solution to improve governance and integrated land management planning that supports integrated forest/biodiversity conservation and production planning. This long-term solution also supports culturally sensitive sustainable production practices at the community and individual farmer level on community lands (longer-term productivity of available agricultural land), ensuring Free and Informed

Prior Consent (FPIC process) with biodiversity conservation and gender consideration mainstreamed, and in forest reserves (NTFP, agroforestry, beekeeping) by supporting livelihoods through sustainable value-added production while also reducing the demand for new forest clearings on community lands. These culturally sensitive production practices, integrating aspects of Mayan traditional milpa farming systems (mixed cropping, slash-and-mulch, nutrient cycling, green mulch), will be communicated through on-site implementation support, field-based demonstration learning, strengthened extension services, farming modules, culturally and gender-responsive training, value-added production pilot and business and production support, and information exchanges. However, there are three fundamental barriers to achieving this long-term solution:

Barriers

Barrier 1. Lack of sufficient policy, legal instruments, and land management planning mechanisms and tools to support sustainable integrated natural resource management and production activities in forest reserves that support biodiversity.

34. This barrier speaks specifically to insufficient policy and legal mechanisms to support and facilitate Indigenous Peoples in Community Zones access to forest reserve concessions that support livelihoods, sustainable agroforestry (primarily cacao) and non-timber forest products (NTFPs), production practices that reduce pressures on community forests from population growth and decrease demand for production land. In community zones, these pressures result in both clearing of community forests and farming on degraded lands and reducing soil fertility, as well as periodic illegal clearing and cultivation inside the forest reserves, all of which do not support biodiversity nor sustainability. While the Belize Forest Policy (2015)[71]⁷¹ (Policy Statement 5) acknowledges the benefits of the use and marketing of NTFPs in supporting forest sustainability and indicates that strategies for implementation are needed, these are lacking, including amongst others, development of a policy framework/guidelines for access to NTFPs by local communities in the forest reserves. Also, while the Forest Act (2017) does allow for indigenous communities to acquire concessionary rights for activities in the reserves that promote biodiversity (such as agroforestry, eco-tourism), NTFPs are not clearly defined. Furthermore, there is no Forest Rule to accompany the Act, nor the legal and administrative process described for acquiring these rights.

35. Land management is limited, and the Maya Mountain North Forest Reserve lacks a detailed and complete management plan covering its entire 13,568 ha. There is also no spatial planning for the entire MMNFR that defines conservation, use and other zones on a landscape scale. There is limited high-resolution spatial data for landscape scale planning of the Maya Golden Landscape within the Toledo District, with resultant limited high resolution classification schemes for land use and forest cover. Monitoring systems scale does not cover sufficient PA-wide key biodiversity data to inform larger scale and landscape scale conservation planning.

36. This barrier also speaks to the limited availability, access to, and use of key planning tools for large landscape scale spatial planning. This includes insufficient diagnostic tools for land management and conservation planning and insufficient capacity for their use, to effectively support informed decision making for land use planning on a larger landscape scale. This is of particular importance

for establishing spatial production and conservation targets within forest reserves and community zones in the MGL. Forest Department, responsible for Forest Reserves (of which some include co-management arrangements) have access to spatial data, but capacity (i.e., spatial planners) and available technology is insufficient to efficiently support land management planning in the forest reserves. Many of the forest reserves across the MGL do not have management plans, nor diagnostic tools to spatially address conservation targets and production goals for land use planning at an MGL landscape scale. In community zones, the indigenous communities also lack technical capacity for spatially planning land use and conservation, challenging the ability to manage agricultural production without undermining biodiversity. This spatial planning is important to support identification of areas for sustainable production practices (slash-and-mulch, inga alley cropping, nutrient cycling, etc.). Integrated land management (ILM) planning across this landscape, with indigenous people's cultural practices and gender mainstreamed, along with biodiversity conservation and climate resilient production, is lacking.

Barrier 2. Limited technical support, outreach, training, and knowledge sharing needed to increase the scale of engagement of Indigenous Peoples and local communities for supporting production practices and approaches that address the challenges associated with, and alternative approaches to, milpa shifting cultivation.

37. This barrier addresses the insufficient availability of technical support, outreach, training, and knowledge sharing to scale up support for the implementation of biodiversity supported sustainable production practices by farmers from Indigenous communities throughout the MGL and its community zones. This includes agroforestry production and value-added production activities such as NTFPs from both forest reserves and community zones. There is insufficient availability of trained personnel, finances, and equipment to support scaled-up mechanisms for culturally sensitive and gender responsive trainings, demonstration farms, extension services, and implementation to support agroecological farming that demonstrates the benefits of increased sustainable (long-term) productivity on the available agricultural land that supports livelihoods, reduces forest loss, and benefits biodiversity. While YCT has the technical knowledge and capacity to communicate and support the effective implementation of different approaches and benefits to addressing challenges of milpa shifting cultivation, this work on a broader community-zone wide landscape scale is limited by sufficient personnel, tools, equipment, training, and outreach. There is also insufficient land use planning within community zones to support sustainable production and reduced shifting cultivation. This includes insufficient identification of land uses and strategies for identifying and supporting land management on community lands. Current community demarcation controversy for Indigenous Peoples in Belize may be resulting in the lack of willingness to identify and map resources and georeferenced boundaries to support land management planning on community lands.

38. Within the community zones, the Ministry of Agriculture and local organizations have only a small presence in providing extension services to the indigenous communities. This is of particular importance given that there are no legal measures protecting forests or biodiversity in community zones, and thus outreach and support for sustainable agricultural practices are of key importance. Most producers lack the training and the technical and logistical support necessary to implement sustainable production practices that integrate biodiversity conservation and climate resilience, and extension services are also insufficient to support farmers throughout the community zones. Furthermore, availability of alternative and value-added production processes for forest reserves (NTFPs) is limited by inadequately described processes and governance structures to support their use by Indigenous communities within forest reserves, with sustainable practices undefined (referred to in Barrier 1) and insufficient procedure guidelines and requirements to community and indigenous people's producers to

support the process of acquiring NTFP forest reserve concession. Additional capacity is needed for Indigenous producers to implement value-added production activities (cacao processing, beekeeping), including business planning, production, and market access.

Barrier 3. Insufficient mechanism for knowledge sharing to enable replication and scaling up of successful production practices

39. Information exchange for biodiversity-friendly production practices is insufficient to expand the scope of reach and effectiveness on the MGL landscape scale. There is low capacity in communities to implement sustainable production practices and the communication of benefits of alternative opportunities for production that reduce deforestation needs scale up to effect broader change. Ya?axch? Conservation Trust and Maya Mountain Cocoa (MMC) company have supported communities in production of biodiversity positive cocoa agroforestry systems, yet the scale of support requires expansion and growth also to effect broader change. While biodiversity friendly production practices are being implemented and teaching taking place by non-governmental organizations such as YCT in the Toledo District, the scale and number of producers reached is insufficient to expand efforts MGL-wide and requires scaling up for long-term sustainability and replicability. Increasing knowledge exchange mechanisms for producers within the MGL, nationally and through international farmer exchanges to learn and exchange information and lessons learned about biodiversity friendly production would also greatly support sustainability and replicability, both nationally and across the region.

2) Baseline scenario and associated projects

Institutional framework and supporting key legislation

40. In Belize, the **Ministry of Sustainable Development, Climate Change and Disaster Risk Management** has the responsibility for sustainable development and the administration of the forestry and fisheries resources of Belize. The Ministry includes the Forest Department, National Biodiversity Office, Department of the Environment, and the National Climate Change Office. The Ministry is also the focal point for several international conventions, namely the Convention on Biological Diversity (CBD), United Nations Convention to Combat Desertification and the Ramsar Convention. The Forest Department and the National Biodiversity Office both provide regulatory oversight for protected area management.

41. The **Ministry of Agriculture, Food Security and Enterprise** (Ministry of Agriculture), is responsible for the development of the climate resilient agriculture sector in Belize, including climate change adaptation and mitigation activities using sustainable practices and the promotion of climate smart agricultural technologies. The Water Management and Climate Change Unit also sits within this Ministry. Its mandate of food security and poverty reduction includes responding to climate change both through adaptation and mitigation, and thus also includes a role in bridging the gap between relevant stakeholders to sustainably combat the effects of climate change by achieving climate resiliency through short, medium, and long- term decisions^[72]⁷². The Ministry's Extension Services,

with whom this MGL Project will partner, is responsible for stakeholder outreach as well as providing support for, and promoting the implementation of, climate smart agriculture practices. The Ministry of Agriculture is responsible for supporting implementation of adaptive farming techniques, stringent regulations of pesticide use and the utilization of protective structures. They support techniques, including agroforestry, to support adaptation while also ensuring food security, practices also which decrease the negative impacts of biodiversity harmful agricultural practices (i.e., pesticides).

42. The **Ministry of Agriculture's Farmer Field School Extension Program**: The Ministry's agricultural training extension program includes farmer field school (FFS). Currently, this FFS extension program is small (covering only 566 hectares in the MGL though consideration for increase the scale and reach throughout the Toledo District is being considered by the Government of Belize. The proposed project aims to strengthen and build on this baseline activity, with in addition to scale and reach, will include a Training of Trainers Program provided by Ya'axch' Conservation Trust. Current Ministry of Agriculture's budget allocation (2019) over the operating period of this GEF MGL Project (approximately 2023-2027) will be US\$ 428,000.

43. The **Ministry of Natural Resources** is responsible for the allocation, titling, and subdividing of lands in Belize. It is the Ministry responsible for developing the **National Land Use Policy** and a **National Integrated Planning Framework for Land Resource Development**. As the framework is key to national development, it ensures that ecosystem services and biodiversity are represented during the planning and development of land resources, inclusive of provisions for corridors and flood sinks^[73]⁷³, maintain the ecological integrity of the biophysical environment, and maintains the integrity of the cultural landscape. The Ministry is also responsible for the Land Degradation Neutrality Target Setting Programme (Finalized in 2020). It also is responsible for the implementation of the **National Integrated Water Resource Management Policy** which improves water security for the population of Belize, through the incorporation of mechanisms to adopt to climate change impacts such as sea level rise (saltwater intrusion) and water quality degradation (due to loss of forest cover). **Lands Information Center** lies within this Ministry in the Lands and Surveys Department, supporting land tenure, land use planning and land information management which this MGL Project may require.

44. Implementation of the **National Protected Area System (NPAS)** involves numerous entities, both governmental and non-governmental. The **National Protected Area System (NPAS) Secretariat** was established in 2010 to coordinate the implementation of the NPAS and serves as the primary liaison between the Government of Belize and PA stakeholders^[74]⁷⁴, and is based at the Ministry of Fisheries, Forestry and Sustainable Development. According to the National Protected Area System Plan (Revised Edition 2015), there are a number of partner organizations responsible for the implementation of the NPAS in Belize^[75]⁷⁵.

45. There is currently no single piece of legislation that exists that independently and directly addresses specific biodiversity considerations. There are, however, multiple government institutions that assist in the integration and implementation of biodiversity considerations in existing policies, strategies, and plans. This includes the **National Protected Areas System Act (NPAS) Act 2015**. The NPAS Act (2015) provides for the maintenance of a coordinated management of Belize's system of

protected areas that is representative of internationally agreed categories, effectively managed, ecologically based, consistent with international law, and based on best available scientific information and the principles of sustainable development for the economic, social and environmental benefit of present and future generations of Belize?^[76]⁷⁶. The NPAS Act (2015) also supports co-management entities (conservation organizations appointed to management public protected areas), and overall regard Belize's commitments under relevant conventions, including UNCBD, United Nations Convention on Climate Change (UNCCC), United National Convention to Combat Desertification (UNCCD) and others. This Act supports the National Policy on Protected Areas, which the Act's objectives further biodiversity and ecosystem conservation, which these Projects actions support. As outlined in the Act^[77]⁷⁷, these objectives include, in part, to:

- ? Promote long-term conservation, management, and sustainable use of Belize's protected areas.
- ? Promote conservation of ecologically viable areas representative of Belize's biological diversity and its natural landscapes and seascapes.
- ? Ensure maintenance of genetic diversity and the diversity of species and habitats within these areas, including but not limited to Application and scope of Act. Extent of National Protected Areas System. Objectives of Act. 424 National Protected Areas System [No. 17 threatened species and species of economic, social, or cultural value.
- ? Ensure sustenance of the provision of ecosystem goods and services important for national development, including but not limited to timber and non-timber forest products, fish and other marine resources, genetic resources, water catchment services, removal of pollutants, soil regeneration, pollination, carbon storage, resilience and adaptability to climate change, protection against natural disasters, and natural environmental features of touristic, recreational, cultural, or spiritual value.

46. As part of the NPAS, the **Forest Department (FD)** is mandated by legislation to provide management and regulatory oversight for all terrestrial PAs designated under the Forest Act (2017) and the National Protected System Act (2015), as well as regulatory oversight for forest resources. Its overall responsibility includes climate adaptation, to maintain and restore healthy forest ecosystems by sustainable forest management, increasing afforestation and reforestation in order to increase the resilience and improve livelihoods of forest-dependent communities^[78]⁷⁸. The FD is also part of the National Protected Area Technical Committee which advises the Government of Belize on all issues related to the NPAS and the advancement of the National Protected Area System Plan objectives. Both the Forest Department and the Fisheries Department are the co-executing agencies of the NPASP. The **Protected Areas Conservation Trust (PACT)** is a National Trust Fund established to provide financial support to the NPAS. PACT plays a significant role in protected area financing and the financial sustainability of the PA system. The Government of Belize revised the **Protected Areas Conservation Trust, CAP218, (PACT) Act Revised Edition 2020**, further strengthening the legislative framework of environmental protection and biodiversity of Belize. The **Forest Act (2017)** reflects the prioritization of ecosystems and the commitment to improve management of Belize's natural resources and biodiversity in line with Article 6 of the CBD^[79]⁷⁹.

47. Non-governmental organizations supporting implementation of the NPASP include the **University of Belize-Environmental Research Institute (UB-ERI)**, a natural resource and

environmental research-based facility within the University of Belize. UB-ERI roles supporting NPASP implementation include^{[80]⁸⁰}: 1) Development and maintenance of the Biodiversity Clearing House Mechanism, 2) Development and management of the National Biodiversity Monitoring database and other agreed national monitoring databases, 3) Implementation of the NTPPAM, and 4) Collaboration in the implementation of the Conservation Action Plan for the Central Corridor, amongst others.

48. **APAMO, Association of Protected Areas Management Organizations** is an umbrella organization representing the non-governmental organizations involved in protected areas management^{[81]⁸¹}. In 2021, APAMO's had 15 members who co-managed as much as 30% of the NPAS. APAMO member agencies function as co-management partners in the implementation of the NPASP. Key non-governmental organizations supporting PA management, and members of APAMO, are legally constituted and registered in Belize. Each member co-manages one or more legally recognized protected areas (terrestrial or marine) and/or manages/holds in trust legally recognized protected areas for the government and people of Belize. Of the 15 members, the following amongst others, are active in the Toledo district of southern Belize and the Maya Golden Landscape.

- ? **Ya'axch' Conservation Trust (YCT)**, this Project's Executing Partner, was founded in 1998 by a consortium of local leaders, developed to safeguard a natural corridor connecting the forests of the Maya Mountains with the lowland forests of the Caribbean coastal plains. YCT has formal co-management arrangements with the Forest Department for the management of the Maya Mountain North Forest Reserve, and also manages the Bladen Nature Reserve and owns and manages the Golden Stream Corridor Reserve (below). YCT has been working closely with the communities in the MGL since 1998 (then referred to as the Golden Stream Watershed) to foster increased conservation awareness and tangible modifications in indigenous livelihood systems, such as dissuading villagers from damaging slash and burn agriculture, whose fires often stretch out of control from small agricultural plots to consume thousands of acres of community, private and PA land alike, to canopy-dependent agro-forestry ventures^{[82]⁸²}. With community representatives on the YCT board, and staff drawn from these same communities, this GEF MGL Project will build on the strong foundations that exist for continued and consolidated collaboration with these villages and their land use areas.
- ? **Toledo District for Development and the Environment's (TIDE)** mission is to strengthen natural resource management and community stewardship within the Toledo landscape and seascape. Its goal is to support health ecosystems, supporting biodiversity and resilient communities. While TIDE focuses on marine sites (Maya Mountain Marine Corridor), it also works in the six watersheds that drain into it.
- ? **SATIM's** mission is to promote and protect the rights of Indigenous Peoples and safeguard the ecological integrity of the Sarstoon-Temash Region and promote the sustainable use of its resources for its Indigenous People's economic, social, cultural, environmental, and spiritual well-being.

Baseline Initiatives

49. The Project will build on the outputs of the recently completed (2014-2019) **GEF Management and Protection of Key Biodiversity Areas in Belize Project** (GEF ID 4605), supported by the World Bank. The Project's objective was to strengthen natural resource management and biodiversity conservation through the mitigation of threats to KBAs in Belize. The GEF-7 MGL Project will build on synergies and lessons, particularly from key relevant Project's outputs that include: (i) An assessment of the KBAs to identify opportunities for sustainable harvesting and marketing of non-timber forest products and other community-based forestry initiatives. Non-Timber Forest Products (NTFPs) with commercial value were identified; ii) One-year operational plan (2018-2019) developed (not implemented) to promote conservation and the sustainable use of NTFPs within the KBA with pilot projects to develop agroforestry or multi-cropping systems, plantations and processing plants for NTFPs and animal husbandry; (iii) A for data and information on forests, wildlife, and PAs that was developed and connected all FD offices, and (iv) an awareness raising program on Sustainable Forest Management and forest fire prevention was developed and implemented. Enhanced coordination among Government agencies charged with conservation and management of natural resources and enhancing sustainable forest management practices, and the training of staff in key agencies for better assessment and monitoring, will further support the implementation of the MGL Project.

50. The Project will also build on the current UNDP GEF-6 (2022-2026) **Integrated Management of Production Landscapes to Deliver Multiple Global Environmental Benefits Project** (GEF ID 9796) whose objective is to mainstream biodiversity conservation and sustainable land/water management into production landscapes in Belize. While the project focuses on watershed and integrated water resource management, the aim of the GEF investment is to reverse fragmentation of forest ecosystems, which includes clearance of riparian vegetation, biodiversity loss, and land degradation within production landscapes. This project also addresses ecosystem remnants that are highly important in their role as biological corridors. While the target area of influence is the Belize River Watershed, north of this GEF-7 MGL intervention area, there are numerous synergies and outputs that the GEF MGL Project can benefit from, including: (i) a strengthened enabling environment (policies, financial mechanisms, and institutional capacities) for sustainable management of production landscapes; (ii) an improved value chains for key agricultural and forest products, including collaborations between public and private sectors to address biodiversity threats and conservations; and (iii) documented best practices, and lessons learned about biodiversity conservation and SLM/water management in production landscapes.

51. The Project will also build on the current UNDP GEF-7 **Enhancing Jaguar Corridors and Strongholds Through Improved Management and Threat Reduction** (2021-2024). This MGL Project will link with the Jaguar Project, whose area of intervention will incorporate portions of the MGL. Specifically, the project will enhance knowledge of the current status of the jaguar / prey / game species and hunting activities in 49,475 ha of the Maya Golden Landscape, that will inform regulations for threat reduction and sustainable population management. Furthermore, YCT will be contributing to this Jaguar Project, who will support the strengthening of their capacity to capture and manage data. Data collection methods, monitoring, and data outputs will directly tie to the MGL's conservation targets and spatial planning of the MGL, as well as the MMNFR. Enhanced national, transboundary jaguar range collaboration, knowledge management and communication will be used as a model to support other MGL migratory species known and/or identified through the projects BD and monitoring initiatives that use this vegetation corridor through the MGL. As YCT will be supporting activities within the MGL for this Jaguar Project, additions links and synergies will continue to be found as the Projects are implemented.

52. Additionally, synergies and lessons learned with the GEF-6 **Integrated Management of Production Landscapes to Deliver Multiple Global Environmental Benefits Project** can further support the MGL Project, particularly given the overlap in project partners. These include, but are not limited to: (i) improved institutional capacities to promote BD conservation, integrated land management/SLM, and building resistance to climate change in the Department of Environment, Forest Department, Sustainable Development Unit, Department of Agriculture, Lands and Survey Department (Ministry of Natural Resources/MNR), MNR Policy Unit, and Department of Rural Development (MLLGRD); (ii) Expanded capacities of data management information systems (e.g., Environmental Management Information System/EMIS), Land Information Center and Belize Agriculture Information Management System (BAIMS)), as well as improved gender-disaggregated environmental data through the Statistical Institute of Belize; (iii) Outputs of, and actions taken to support, information needs and management capability of NIWRA, Land Information Center (MNR), and the Ministry of Health (MoH), including their ability to validate and use data developed by the National Meteorological Service (NMS); iv) biodiversity trainings developed; and (iv) community monitoring techniques for population biodiversity (i.e., transect surveys/visual counts, spot mapping, camera trapping), area under sustainable agriculture.

53. **The Integrating Protected Area and Landscape Management in the Golden Stream Watershed** (GEF ID 2068; 2005-2013) will also be considered, particularly given the gender considerations and women empowerment the project addressed in its design, as well as through their participation in sustainable production practices, development of strategies to ensure active community involvement, and promotion of ownership of the project among government agencies, among others. The Project's intervention area is the Golden Stream Watershed (GSW), currently referred to as the Maya Golden Landscape, its objective was to function as a replicable model of how multiple protected areas working within an ecologically interconnected and interdependent biodiversity corridor area can jointly achieve conservation and sustainable development objectives.

54. **The Promoting Agribusiness development in Northern Belize Project** (2015-2017) FAO and EU funded project goal was the reduction of poverty and improvement of living standards of the rural population in the northern region of Belize (Corozal and Orange Walk Districts) by supporting the value chain approach within the Ministry of Agriculture, Fisheries, Forestry, the Environment, Sustainable Development and Immigration (MAFFESD) to enhance its capacity to facilitate the strengthening of onion, honey and sheep value chains, to increase productivity, quality and consistency of production, and improve farmers' linkages to markets. In addition to enhanced capacity in value chain management developed at the national level within MAFFESD and for stakeholders within each of the three value chains (of which honey will be of significance for this GEF Project, as well as overall increased capacity within government), FFS training activities (including training courses in marketing and post-harvest handling) and linkages developed with Belize Marketing Development and Corporation (BMDC) as a market outlet for locally produced honey can support this GEF Project's outputs).

55. **The Selva Maya Project** (2011-2019) entitled *Protection and sustainable use of the Selva maya*, commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) focused on enhancing coordination and regional cooperation between key governmental and civil society actors for the site's protection and sustainable use of biodiversity in Mexico, Guatemala, and Belize. National counterparts are the Forest Department in Belize. The Project focused on PAs and biodiversity, land use planning with conservation integrated, sustainable income generating alternatives and environmental government, all of which contribute to this GEF -7 project. As an output of the

project in Belize, the Forest Department has a 5-year strategic plan, is implementing updated management plans for 5 protected areas, and more than 700 people have improved their skills handling non-wood products such as honey and benefiting from the strengthening of these value chains. Also, lessons learned from successful training models that have resulted in 300 families diversifying their land with more ecologically sound practices can support this GEF-7 training and outreach programme.

56. The **Belize Maya Forest Project** is a 95,595-ha tract of land purchased (2022) by the TNC and its partners. It is a tract of land that connects Belize Maya Mountain Massif to the Belize Maya Forest, that has faced deforestation rates estimated at 4 times the national average driven primarily by land cleared for industrial agricultural production. While this land lies north of the Maya Golden Landscape, it is significant baseline initiative to this GEF Project for its contribution to forest connectivity and significant biodiversity conservation throughout Belize, filling a critical forest gap in the 38 million acres Selva Maya Corridor. Synergies related to conservation and migratory species will be further explored during Project implementation.

57. The **Boden Creek Ecological Preserve** was purchased in 2022 for conservation, bordering the western border of the Golden Stream Corridor Preserve in the Maya Golden Landscape. While programmes of initiatives for this site are currently not known, its purchase will provide significant additional protection for the Golden Stream Corridor Reserve from incursions on its western border, and significantly contribute to lowland broadleaf forest connectivity in the Maya Golden Landscape and to the goals of this GEF-FAO MGL Project.

58. **Belize's REDD+ Project**, The REDD+ Project will further incentivize forest protection through the reduction of emissions from deforestation and conservation of forest across Belize, contributing to Belize's commitment under the UNFCCC[83]⁸³. The Readiness Preparation Proposal to the Forest Carbon Partnership was submitted in 2014, is in discussion with the World Bank. Ongoing synergies and collaborations will be facilitated by shared partnerships, including the Forestry Department. Rio Bravo Carbon Sequestration Project was started in 1996, one of the first REDD projects in the world, with the Programme for Belize one of its first conservation projects. This Project aimed to reduce GHG emissions through the acquisition and protection of forest lands threatened by agricultural conversion, largely focused on avoidance of deforestation taking place through the purchase of land that would have been sold to industrial scale agricultural farmers. The original project was redesigned in 2012 as the Rio Bravo Climate Action Project, which ensures the conservation and sustainable management of 6,296 ha of forest in of Belize and has resulted in prevented the net emission of 1,660,260 metric tons of carbon dioxide by preventing its conversion to mechanized agriculture. While the Rio Bravo Conservation Management Area is in northwestern Belize, its actions demonstrate how forest conservation could attract private capital through a market-based incentive programme (carbon offsets) and may provide a financial opportunity to minimize deforestation and forest degradation in production landscapes in other parts of Belize for sustainable forest use, which this GEF-7 MGL Project will explore further during Project implementation. In Belize, the REDD+ Project supported monitoring through ground surveys, communications with surrounding communities to prevent degradation through illegal logging, best practice and lessons learned that can also support this MGL project. This MGL project will also alignment with Belize's forest monitoring system developed by the REDD+ readiness / additional finance projects by contributing to national carbon accounting and GHG inventory management systems through the MGL monitoring, particularly annual land use/land cover monitoring of the MGL.

59. Synergies will also be built with the GCF funded (USD 20M, 2019-2026) **Resilient Rural Belize (Be-Resilient) Project**. With the support of International Fund for Agricultural Development (IFAD), the objective of this project is to build overall resilience to climate change by adopting new or improved climate resilient practices, increasing and diversifying agricultural production, and by developing climate-resilient value chains to address constraints faced by small farmers and improve the profitability of their climate resilient agricultural production and market chains for the off take of their surplus production^[84]. The Toledo district is one of the 5 prioritized districts in Belize for project intervention. Synergies and lessons learned, including through the Be-Resilient Project's further include community and district access to climate information services for agricultural planning, climate-resistant agricultural practices, and possible increased access to markets through resilient rehabilitated roads, will be further explored and relationships between the Projects developed to support this GEF project's work in the MGL.

60. Digital technologies are being supported through 2 Projects to support YCT's work in the MGL, both of which will be completed in 2022 and of which certain project outputs can benefit this Project. *Enhancing conservation in Belize's protected areas through disruptive technologies* project (Inter-American Development Bank; 2019-2022; US\$ 574,000; Multi-lateral Investment Fund IDB#BL-T1121), for which YCT is the Executing Agency, aims to improve livelihoods and economic opportunities for farmers living in communities that surround the protected areas by creating opportunities around two key crops: cocoa and honey. In addition to providing training and specialized technical assistance, the project will use geospatial tools and digital apps to improve productivity, market access, and business management for producers. The project *Mainstreaming biodiversity and protected area management within the Maya Golden Landscape through disruptive technology and alternative sustainable livelihoods project* (USFWS; 2021-2023; US\$ 200,000; FY21AS00417) has been supporting YCT to enhance the use of digital technologies linked to a database to support PA surveillance, and to support 10 farmers in new cacao agroforestry in community zones adjacent to the MMNFR, including the provision of 3 trainings in pre and post production of cacao beans. These technologies and enhanced capacities within YCT will support the FAO MGL Project, technologies, and capacities upon which the project can build and enhance. These grants funded the development phase of the database management system, which is not yet fully functional. The system requires operationalizing, populating, and ensuring functionality to accommodate existing and new database sets (i.e., biodiversity monitoring, amongst others). This will also include data curation, management, and troubleshooting, including improvements based on the system's initial operationalization.

61. **GEF Small Grants Programme.** The project will also coordinate action and incorporate lessons learned from the *GEF Small Grants Programme (GEF SGP)*. The GEF SGP has supported numerous projects over the years that have synergies with the MGL Project and from which lessons learned can support project success. These include, and of particular relevance; (i) **Ya'axche Conservation Trust, this MGL Projects Executing Partner** for the project **Strengthening Community Agroforestry Cooperatives Governance for Sustained Local Livelihoods** in support of Green Creek Farmers' Cooperative and Aguacate Conservation and Development Committee, (ii) **Toledo Institute for Development and Environment** for the project **Building Capacities in Forest Fire Management Among Indigenous Peoples and Local Communities in Belize**, (iii) **Friends for Conservation and Development** for the project **Promoting a Landscape Watershed and**

Biodiversity Protection Program, (iv) **University of Belize Environmental Research Institute** for the project **Building Community Environmental Stewardship in the Maya Forest Corridor through Avian Ecology**, amongst others.

62. **Ya'axch' Conservation Trust.** Of relevance and importance are the initiatives and activities carried out by this MGL Project's Executing Partner Ya'axch' Conservation Trust. Ya'axch' Conservation Trust is a non-governmental organization that has been involved in conserving biodiversity within protected areas and working with indigenous communities in the MGL since 1998 and have legal co-management arrangement with the Forestry Department. Ya'axch' currently has two main operational programs that the proposed project aims to build on as baselines activities; (i) The Protected Area Management Program, and (ii) The Indigenous Community Outreach and Livelihoods Program. Their work is carried out with approximately 120 families with approximately 600 people across 10 different indigenous communities. Ya'axch' has a special programme element targeting women and women lead community businesses. Ya'axch' has assisted three women's groups (Indian Creek Maya Arts Women's Group, the Marigold Women's Cooperative Society, and the Maya Rose Women's Group) to develop business plans for nature-based tourism activities. The Protected Area Management Program operates through activities centered around indigenous community-based forest and biodiversity management in collecting information and observations, including metrics regarding unsustainable land management activities, biodiversity, water quality, and fires in protected areas. This operates as part of a mechanism of independent forest habitat monitoring regarding processes of utilization of forest resources and protected area activities. The information guides their administration of indigenous community conservation activities with the Forest Department (promoted through the Forest Act and NPASA) as a counterincentive to unsustainable land management practices occurring inside of protected areas (unsustainable agriculture, illegal logging, etc.).

63. The **Ya'axch' Conservation Trust** privately owns the Golden Stream Corridor Preserve. As a result of its successful management of the preserve, the Government of Belize requested Ya'axch' to co-manage the Bladen Nature Reserve in 2008, known as the biodiversity 'crown jewel of Belize' by the Forest Department. Ya'axch''s current protected area management program covers the GSCP, Bladen Nature Reserve, as well as Maya Mountain North Forest Reserve, where they obtained a community agroforestry concession in the MMNFR in 2014 (see Para 23, 55). The indigenous Community Outreach and Livelihoods Program provides MGL indigenous communities with skills, knowledge, and information for effective stewardship of forest reserves and indigenous community lands. Within the forest reserves, this includes supporting and promoting sustainable agroforestry, NTFP and inga alley cropping over unsustainable activities. This includes restoration of deforested and degraded lands, including through natural regeneration and cocoa agroforestry, a harvestable cash crop which requires between 30% to 60% overall shade) in line with the Forest Act (2017). Ya'axch' provides indigenous communities with administrative support for navigating the challenging legal process of agroforestry or NTFP concessionary rights for the forest reserves, as well as technical trainings for their effective implementation. Successes have included, but are not limited to, *'Thirty-one farmers are at the forefront, making history implementing Belize's first agroforestry concession ? a climate-smart farming adaptation contributing to sustainable development'*⁸⁵.

64. The Government of Belize through the Belize Forest Department granted legal access to YCT for Belize's first agroforestry concession in 2015, 379 ha in the MMNFR. YCT successfully lobbied the Government on behalf of the Trio Farmers Cacao Growers Association (TFCGA) for this

first agro-forestry concession, an innovative legal provision that grants Ya?axch? a license to cultivate native species of cocoa in the protected area for a period of 15 years (2014-2029) subject to certain conditions and signed agreements. The primary goal of the concession is to bring sustainable economic development to communities buffering the MMNFR, in a manner which supports livelihoods and reduces threats to biodiversity and habitat, and illegal and unsustainable incursions into the forest reserve. Five years after the approval of this concession, in 2019, the Trio Farmers Cacao Growers (TFCG) harvested 26,000 plantains, 49,600 pounds of corn, 3,000 pounds of peppers, 500 pounds of honey, and 11,800 pounds of wet cacao beans^[86]⁸⁶. While the license was for cacao agroforestry for livelihoods and conservation alone, permission was granted by the Forest Department for inga alley farming (traditional crops grown) as well as NTFP use (honey) to diversify crops for family use. The group members of TFCG have and are seeing the benefits of sustainable agricultural practices and are already envisioning opportunities such as beekeeping and value-adding of cacao in the form of chocolate, and selling fermented processed cacao, activities that this GEF Project are supporting. However, the license has an annual administrative fee and royalties for the use of the land beginning in the 6th year (2020). Effective management and value-added opportunities to increase profits from the concession and cacao have been identified by TFCG^[87]⁸⁷.

65. On indigenous community production lands, Ya?axch? is involved with indigenous community outreach and training programs centered around promotion of climate-smart agriculture, sustainable forest management, and fire management that specifically targets indigenous community leaders and groups, farmers, teachers, women, and children. Ya?axch??s leadership and the majority of its staff originate from Indigenous communities within the MGL and have life-long knowledge of the culture and landscape issues facing indigenous communities in the MGL. Furthermore, Ya?axch? is working directly within the specific indigenous communities identified through predictive modeling^[88]⁸⁸ in areas of predicted mature forest loss (Figure 7). This proposed GEF MGL Project aims to build on these baseline activities by strengthening and scaling Ya?axch??s existing programming activities in line with GEF-7 BD focal area strategic programming (BD 1-1: Mainstreaming biodiversity in priority sectors). Ya?axch??s 2019 budget that is supporting their Protected Area Management Programme and their Indigenous Community Outreach and Livelihoods Programme has annual operating budget of US\$ 1.24 million.

66. **Maya Mountain Cocoa Company** is a private cocoa company that purchases organic wet cocoa from community producers farming in MMNFR agroforestry concession. MMC is a buyer of wet cocoa from approximately 400 family producers in MGL indigenous communities, including those supported by Ya?axch??s Indigenous Community Outreach and Livelihoods Programme. Only organic wet cacao is purchased. MMC ferments and dries the cocoa at their processing facility in the MGL, which is then sold to the U.S. based parent company for processing for sale in the US and European markets. Individual farmers, the MGLs sole cacao producing cooperative Trio Farmers Cacao Growers (TFCG) and association (Aguacate Cocoa Association) sign an annual agreement to sell all their cacao to MMC. Organic certification is provided with this agreement, the requirements include a 5 km radius around the agroforestry plots (on community lands and in agroforestry concessions) with no chemical use. After purchase, MMC ferments and dries the cacao at its centralized fermentation and processing facility in the MGL, built in 2016, and sells to its parent company for sale in the US and Europe. Between 2018 and 2022, the agroforestry concession in Maya Mountain North Forest Reserve

(MMNFR) has resulted in Trio Farmers Cacao Growers (TFCG) generating over BZ \$ 211,950 from the sale of wet cacao beans.

3) Alternative scenario

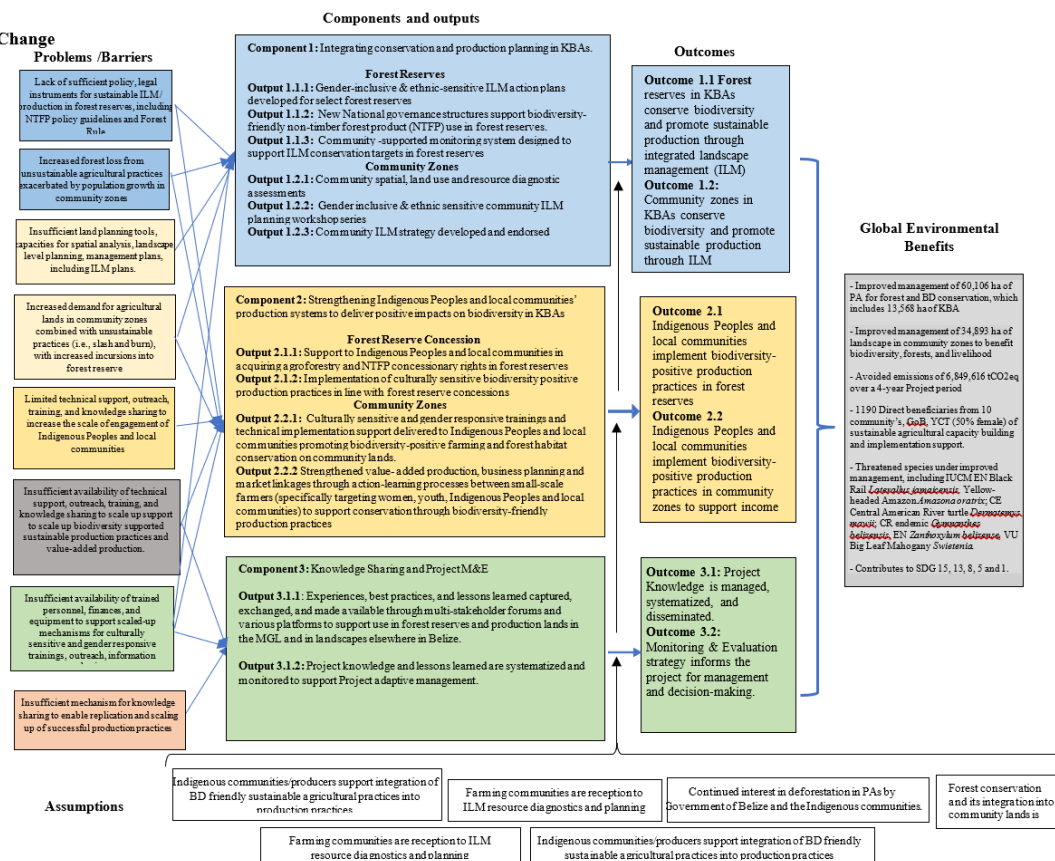
3.1 General approach to project intervention and theory of change

67. Addressing multiple interrelated drivers of biodiversity loss and deforestation requires an integrated approach to abate these losses successfully. This is particularly true in the Mayan Golden Landscape where socio-economic trends and population growth are increasing pressures on forests and biodiversity through agricultural expansion into forested areas both in forest reserves and in community zones. Population pressures have rendered the traditional Mayan "slash and burn" aspect of milpa farming unsustainable, with reduced fallow periods, soil degradation and decreased productivity on available agricultural lands, impacting livelihoods.

68. This Project's strategy recognizes this and will put in place an approach that mainstreams biodiversity in the MGL by strengthening and scaling integrated land management planning and sustainable production initiatives inside the forest reserve and Indigenous community zones that address several drivers and barriers that threaten the MGL's forests and natural resources. Component 1 promotes a set of outputs and activities focusing on strengthening policy and planning to reduce land use and production pressures on the MGL's forests and biodiversity from expanding clearing of forest for agriculture in forest reserves and community zones by supporting integrated land management (ILM) planning and strengthening existing governance structures for improving Indigenous People's access to forest reserves for sustainable forest uses (NTFPs, agroforestry). Enhance monitoring systems using innovative technologies (i.e., drones, acoustics, etc.), with increased monitoring sites and frequency, supported by an enhanced data management system will enable effective use of this data within the MGL and nationally. Increased biodiversity data gathering and monitoring supported by this data management system will further support informed conservation decision making, including within the more protected Bladen Nature Reserve, and privately owned Golden Stream Corridor Preserve. Component 2 supports Indigenous Peoples and local communities' implementing sustainable production systems and use of NTFPs that reduce forest loss and deliver positive impacts on biodiversity in the Project intervention sites. These activities and outputs will support increased land productivity, sustainable forest use (i.e., NTFPs), and forest conservation in the MGL in both forest reserves and community zones without undermining or degrading biodiversity. Finally, project Component 3 will support systematizing and sharing of knowledge and lessons learned related to sustainable agricultural production that supports forest conservation and its producers and with a broader set of stakeholders in the MGL and beyond ? including other companies, NGOs, and development partner programs. Component 3 also includes monitoring and evaluation activities related to project implementation.

69. Extensive participation and consultations have been carried out with local stakeholders, the indigenous communities, and indigenous authorities during Project development (see Annex I2 for additional stakeholder data). The process of Free and Prior Informed Consent (FPIC) will be carried out during Project inception, and full endorsement will be sought by Indigenous Community Authorities with the communities that the Project will be working with prior to implementation of these project activities. Based on this process, project adjustments will be made accordingly as needed. The FPIC process and strategy is outlined in the Indigenous People's Plan.

70. Theory of Change



3.2 Alternative scenario

71. **Project Objective:** To mainstream biodiversity in the Maya Golden Landscape's key biodiversity areas (KBAs). This will be done through 3 interrelated strategies/components as follows:

Component 1: Integrating conservation and production planning in KBAs

Component 2: Strengthening Indigenous Peoples and local communities' production systems to deliver positive impacts on biodiversity in KBAs

Component 3: Knowledge Sharing and Project M&E

Component 1: Integrating conservation and production planning in KBAs

Outcome 1.1: Forest reserve in KBA conserves biodiversity and promotes sustainable production through ILM.

72. This outcome focuses on strengthening policy and supporting planning for the integration of conservation and sustainable production planning in the MGLs' PA system, with particular focus on Maya Mountain North Forest Reserve: (i) A 5-year Integrated Land Management Plan for the MMNFR to include Annual Operations Plans; (ii) the development of National Forest Policy framework/guidelines to support the use of NTFPs in forest reserves and the drafting of related Forest

Act (2017) Rule recommendations; and (iii) Strengthened monitoring system of the MGL, including strengthened biodiversity data collection, and iv) and enhanced monitoring system, including a community-based monitoring programme, to support ILM conservation and production targets in the MMNFR. Three protected areas, Golden Stream Corridor Preserve (GSCP), Bladen Nature Reserve (BNR) and MMNFR will constitute the prioritized focus of Outcome 1.1, while ILM planning in 4 communities constitute the prioritized focus of Output 1.2.

73. Output 1.1.1. Gender-inclusive & culturally sensitive ILM action plans developed for select forest reserve. This output will focus on improving land planning and resource management inside the ecologically important and vulnerable[89]⁸⁹ Maya Mountain North Forest Reserve (MMNFR). The Maya Mountain North Forest Reserve is an important primarily mature forest that buffers the Indigenous community zones within the MGL and the more highly protected Cockscomb Basin Wildlife Sanctuary outside the MGL to the north and west. Key to forest connectivity, portions of the MMNFR are highly vulnerable to encroachment[90]⁹⁰. Areas within the forest reserve under highest threat of deforestation or already deforested (see vulnerability maps (Figure 7) are the forest reserve boundaries directly adjacent to de-reserved areas[91]⁹¹ and the 5 km with the forest reserve bordering adjacent community zones, a priority focus of ILM planning. Given that there are permitted land uses through legal concession licenses for extraction permitted by the Forest Act (2017) through the Forest Department, conservation and production planning is critical for this MMNFR and KBA, as well as forest reserves throughout Belize. YCT is and has legally managed the MMNFR through a formal co-management agreement with the Forest Department since 2016. This provides a unique opportunity to support ILM planning that integrates existing sustainable production practices within the MMNFR agroforestry concession (primarily cocoa agroforestry, NTFPs, and apiculture) that does not undermine biodiversity, such as the slash-and-burn practice of milpa farming. This can be used as a model throughout Belize for sustainable and biodiversity-friendly production integrated land management that is supported by spatial planning to meet production and conservation targets.

74. A participatory and gender-responsive 5-year Integrated Land Management (ILM) Plan and Annual Operational Plan for the whole Maya Mountain North Forest Reserve will be developed. The ILM plan will be developed with the support of a technical expert, supported by YCT and stakeholder engagement and consultations. The ILM will include stakeholder engagement and socio-economic assessment. The ILM plan will be developed in full collaboration with the Forest Department and Indigenous Peoples in neighboring community zones. To support decision-making, the development of the ILM will include enhanced biodiversity data, spatial mapping (conservation and production targets), and management rules for the forest reserve. A land use/zoning map will be prepared that identifies areas for production and biodiversity conservation. Forest use and livelihoods currently provided by the forest reserve through sustainable NTFPs and cocoa agroforestry concessions (through the Forest Department) to the Indigenous communities will be incorporated into the site planning.

75. The development of this ILM plan will build on Ya?axch? Conservation Trust?s protected area management program as a baseline activity. This ILM will update and expand on the 2020-2021 MMNFR ILM plan [92]⁹² that targets its community cacao agroforestry concession, occupying 936 acres in the southeastern corner of the 36,130-acre forest reserve (Figure 1), near the village of Trio.

This was Belize's first and currently only agroforestry concession for conservation and livelihoods in a forest reserve. The concession is a legal agreement between Yaxch Conservation Trust and the Forest Department (FD) and is a multistakeholder community forestry model that integrates multiple objectives benefiting the community, forest managers, and the environment, allowing local residents to access a protected area and become stewards of that area^[93]⁹³. And while not part of the original concession, an annual crops section was planned and integrated into this concession model with special permission from FD so that members could plant and harvest crops for subsistence and local sale while waiting for cacao to mature and generate income. This diversifies the farmer's assets and improves climate resilience by providing a safety net from crop failure and market shocks^[94]⁹⁴.

76. Strengthened spatial mapping and planning system and technology. The Project will strengthen the Forest Department GIS spatial planning capacities with equipment (office computer for spatial analysis, GPS)^[95]⁹⁵. Expanding the technical capacity of YCT to implement and co-manage the 3 Project PA intervention sites; GSCP (privately owned by YCT), MMNFR, and Bladen Nature Reserve (both co-managed by YCT and the Forest Department). YCT's spatial planning capacities require strengthening to effectively support the expanded spatial planning needs of this Project and for continued planning, management, and monitoring (linked with Output 1.1.3) of the MGL post-project completion. The Project will enhance the operation of YCT's GIS Unit through support for office, field equipment to support field data collection and monitoring, and satellite images and technical support for spatial analysis (land cover/land use classification of satellite images), use of drone technology, camera traps, and aerial images geotagged for spatial analysis. Associated training needs will be identified during project implementation. The Project will be strengthening capacities and technologies to support MMNFR planning, MGL land use change monitoring, and spatial analysis/land use classification capacities. Training in spatial analysis/land cover classification will be provided to YCT's GIS personnel and the Gov't of Belize GIS Unit staff, a capacity gap identified in the CBD Clearinghouse Mechanism 2020 and through stakeholder consultations. The Project will liaise with the UNDP-GEF supported *Integrated management of production landscapes to deliver multiple global environmental benefits Project* (GEF ID 9796) to ensure capacities and spatial planning support for the FD's GIS Unit do not overlap.

77. This output will also include comprehensive land cover / land use mapping for the Toledo District using high resolution satellite imagery, supported by a consultancy. This comprehensive baseline land cover / land use map will support this output's community land planning, as well as support scaling up and replicability post Project completion of YCT's ongoing work in the MGL, particularly YCT's contribution to MGL-wide landscape-level planning. Land use information will be disseminated to key governmental departments (Forestry Department, Lands, National Biodiversity Information Office).

78. Biodiversity data collection and systems enhanced. The Project will increase capacity and scope of Yaxch's data gathering and monitoring programme. A greater area within the Project's intervention areas (MMNFR, GSCP, and Bladen Nature Reserve) will have data collection and monitoring and collected with increased frequency (see below). This expanded baseline biodiversity data collection effort will augment existing data collected and managed by YCT since 2006 and will be integrated into its BRIM strategy. The Project will support this expanded biodiversity data collection

effort with equipment (expanded camera trap use, drone use, remote audio recording, other tbd). YCT's technical capacity will be enhanced through targeted trainings of existing and new personnel, field technicians, and community members, supported by short-term conservation biologist/species Biodiversity Research, Inventory and Monitoring Strategy (BRIM). specialist consultancies.

79. Sampling areas will expand to more remote areas within the PAs in the Project's intervention sites, including more remote areas within the PAs, particularly the mature forests of the MMNFR to support conservation planning, as well as the BNR, GSCP as well as within forested and agroforestry areas within community zones. Data of bird, mammal, and other species (including flora) in these more inaccessible sites, both migratory and resident species, can support conservation planning within the MGL and throughout species ranges. Baseline bird census (in addition to indicator species currently being monitored) will further support this work, as will the identification of threatened and endangered species. Species of national, regional, or global significance (IUCN Red-list of Threatened Species^{[96]⁹⁶}) documented and/or identified should be included in the expanded monitoring effort (BRIM Strategy): the contribution of their distribution would be a significant contribution to species' conservation and Global Environmental Benefits. Liaising with the Jaguar Project for experience and lessons learned can support this Project in addressing critical habitat in forested areas where there is human use and potential conflict.

80. This expanded biodiversity data will further support the ILM Plan for the GSCP (2020-2025) and Bladen Nature Reserve's conservation efforts. Combined with land cover data spatial analyses (Output 1.1.3), biodiversity data will also support scaling up of landscape level conservation planning post-Project completion. This will add to YCT's existing science, community, and outreach programmes that have been supporting MGL-wide landscape conservation and sustainable production planning since 1998. This biodiversity data will further support the Project's contribution to global environmental benefits (GEBs) and Belize's National goals outlined in its 2016-2020 NBSAP and MEA commitments.

Output 1.1.2: New National governance structures support biodiversity-friendly non-timber forest products (NTFP) use in forest reserves.

81. Policy Framework/guideline will be developed to support the National Forest Policy (2015). National Forest Policy Statement 5 encourages the use of NTFPs, developing a policy framework/guideline to access NTFPs by local communities, promoting research on NTFPs, and establishing small forest product processing enterprises. However, this policy framework/guideline has not been developed. This output will focus on developing an overarching policy framework/guideline for sustainable and biodiversity supported NTFP extraction. The Project will support the development of this framework/guidelines, supported by a legal consultant. An NTFP governance gap assessment will be carried out to inform this framework/guideline's development supported by broad community stakeholder consultations within the MGL, particularly communities adjacent to forest reserves dependent upon NTFP use. Its approval, along with a Forest Act Rule (see below), can help ensure longevity of biodiversity friendly and sustainable alternative livelihoods through NTFP extraction in forest reserves throughout Belize's PA system. Please note that this output will not entail a new NTFP Policy, as indicated in the PIF, given the existing inclusion of NTFP use in the current National Forest Policy.

82. This output will also include the development of a Forest Rule recommendation to accompany the Forest Act (2017) to strengthen the legal basis for acquisition of forest reserve NTFP concessions. This Forest Act Rule recommendation will be developed with the support of the legal consultant for the policy framework/guideline (above), and in collaboration between YCT and the Forest Department. The Forest Act (2017) is currently in the process of being aligned to the updating of the Wildlife Act to ensure synergies. As such, NTFP use and related conservation and sustainable use guidelines will also be developed and submitted to the Forest Department, for recommendation for formal attachment into the Forest Act (2017) as a Forest Rule. As with the Forest Policy framework/guideline being developed to support access to NTFPs by local communities, the development of this Forest Rule will entail broad community stakeholder consultations within the MGL, particularly focusing on communities adjacent to forest reserves. This output builds on Ya?axch? Conservation Trust?s Protected Area Management Program as a baseline activity, supported by the agroforestry concessions already obtained for the MMNFR (Output 2.2.1). The framework/guidelines developed through this activity will establish rules surrounding key issues related to the sustainability of NTFP and its alignment with safeguards for biodiversity conservation.

Output 1.1.3: Community-supported monitoring system designed to support ILM conservation targets in the forest reserve

83. Improved monitoring will take place at landscape and community levels. This output will further develop (expand and operationalize) YCT?s MGL Data Management System, expanding and strengthening on YCTs existing data management initiated through the USFWS and WB supported Projects[97]⁹⁷. These initiatives funded the development phase of the database management system, which is not yet fully functional. The system requires operationalizing, populating, and ensuring functionality to accommodate existing and new database sets (i.e., biodiversity monitoring, amongst others). This will also include data curation, management, and troubleshooting, including improvements based on the system?s initial operationalization. This data management will support all monitoring and data for the MGL, both for its protected areas and community zones. This system will support monitoring of; 1) land cover and land use change, 2) biodiversity data from an expanded BRIM strategy (linked with Output 1.1.1) that includes YCT and community-based monitoring in forest reserves and on community lands, 3) ILM conservation targets identified. Furthermore, the National Biodiversity Information Office will be collecting all data from PAs throughout Belize into a National coordinated data base for use in National reporting obligations to meet MEA obligations, including reporting to CBD.

84. Annual deforestation monitoring of MGL using LANDSAT or other imagery (to be determined during project implementation) and dry season monitoring of fires through FIRMS_MODIS will be conducted, with results presented in the annual State of Land Use Report each year for the Project?s duration (and will continue post project completion) and disseminated to key governmental departments including the Forest Department, National Biodiversity Information Office, Lands, and other relevant authorities. This output will build on build on Ya?axch? Conservation Trust?s Protected Area Monitoring Program as a baseline activity. This output will be tied to the Project?s improved spatial mapping capacities and Toledo District -wide satellite image land cover/land use interpretation (Output 1.1.1) and maps, supporting the effective use of satellite images to monitor land cover and land use changes. This will be supported by drone technology, other geospatial data capturing equipment and techniques, expanded ranger teams (4 full-time rangers to be

hired), field monitoring and data collection equipment, and training. Innovative technologies to support monitoring of remote forest with limited access will be explored. Capacity building will include training for forest rangers, field technician and community members in monitoring techniques and equipment use, biodiversity monitoring supported by subject matter specialists, GPS and geospatial data gathering and data entry. Linkages with national monitoring programmes, systems and databases will be supported, including the National Forest Monitoring System (NFMS), an output of Belize's REDD+ Readiness process, and the FD's Forest Information System/database. In addition, monitoring will also explore the integration of SEPAL and Collect Earth software and the deforestation alerts provided by these systems into its monitoring efforts.

85. These capacities are essential to effectively support a strengthened monitoring and data management system that will contribute to Belize's national spatial monitoring and data management system (FIS) and support National decision-making. This will further support CBD and LDN target monitoring and reporting. This Project will liaise with the UNDP-GEF funded Integrated Management of Production Landscapes to Deliver Multiple Global Environmental Benefits (GEF ID 9796) that will support the Government of Belize's Forest Department GIS Unit by providing equipment and infrastructure support to the National Forest Information System to improve land use change monitoring to avoid overlap and ensure that Project support addresses capacity gaps. This Project will also liaise with the National Biodiversity Information Office and support National biodiversity data collection efforts, currently being established. The Project's enhanced monitoring support provided to YCT will also ensure provision of essential accurate and timely identification of land use and land cover change within the MGL as a whole and specifically within the Project's target protected areas.

86. Biodiversity monitoring will expand on YCT's current implementation of the Biodiversity Research, Inventory and Monitoring (BRIM) Strategy for the MGL. This strategy was built on the Conservation Action Strategy for the Maya Mountain Massif (MMMC CAS) that was drafted in 2008 by Ya'axch', Fauna & Flora International and TIDE. The MMMC CAS is an indicator species monitoring system standardized for forest reserve wide data comparison and is currently being implemented in the Project's target PAs. This strategy will be expanded to include biodiversity data collection and targeted monitoring of key species identified in 1.1.1 (i.e., threatened, and endangered species, migratory species, etc.), contributing to Global Environmental Benefits GEBs.

87. Biodiversity specialists will be contracted to support the scaling up of the YCT's BRIM strategy, as needed, supporting data collection, monitoring, and focal species conservation monitoring and planning (linked with Output 1.1.3). Species monitoring programmes will be developed for 2 IUCN red-listed species, the White-lipped Peccary *Tayassu pecari* (Vulnerable) and the Geoffroy's spider monkey *Ateles geoffroyi*, (Endangered). These monitoring programmes will be developed, initiated, and incorporated into YCT's existing species indicator monitoring programme (BRIM strategy). Both species populations identified are decreasing^[98], and dependent on habitat within the MGL^[99] and the MGLs connectivity within the Mayan corridor. This monitoring data will be collected in a species appropriate manner to both inform the development of conservation targets for spatial planning (Outcome 1), to inform potential post-project species recovery and conservation action planning and will link with ongoing national and regional species monitoring and conservation initiatives.

88. In addition, biodiversity monitoring will include the development of a community-based monitoring program that will be implemented within the forest reserve concession as well as adjacent communities. Local community researchers will be recruited to conduct monitoring in the forest reserve concession and across 10 communities in the MGL, supported by a Biodiversity Officer that will be hired by the Project to plan, conduct, and manage this biodiversity / wildlife monitoring. YCT research rangers and community researchers will be trained in monitoring protocols and specialize in the deployment of camera traps, and use of other equipment as needed. Annual refresher trainings for research rangers and community researchers will be carried out and plans using metrics and monitoring resources outlined. A wildlife monitoring team (community researchers, research rangers, biologist) will analyze data, including processing of images from wildlife camera traps. Wildlife will be identified, and data outputs will be shared with communities via a farmer forum and will be shared with National Biodiversity Information Office and their database. This output will include support for training, use of tools (i.e., camera traps, remote listening devices, GPS, etc.) for the identification of wildlife species in zones and Indigenous Community Conservation Areas (a voluntary designation by Indigenous Communities on their community lands), for example as requested of YCT by Community Elders of the San Jose community.

Outcome 1.2: Community zones adjacent to KBA conserve biodiversity and promote sustainable production through ILM.

89. This outcome focuses on supporting Indigenous community land use planning within the MGL's Indigenous community zone, particularly those communities identified as vulnerable for continued forest cover loss^[100]¹⁰⁰. Land use and resource assessments and spatial land management planning support will be provided on a village-by-village basis, based on consultation, and expressed interest by each village. Spatial land use planning and resource diagnostics will be supported as requested, and spatial land use plans with recommendations provided to support community decision making regarding planning and use of natural resources associated with their production activities and conservation interest. This is of particular significance given the land pressures caused by population growth. This output will be achieved through a participatory process that includes equal opportunity, particularly land and resource access rights, for women and Indigenous community members. The FPIC process will be carried out with the Indigenous communities with which the Project will working, which will be determined based on community interest and approval by Indigenous Elders for participation in these Project activities that supports ongoing work in the MGL that promotes sustainable production practices and land use identification/ILM planning. The first phase of Free, Prior and Informed Consent (FPIC) process was initiated with 4 communities (Aguacate, San Jose, Bladen, Indian Creek) which have expressed interest in project supported activities focused implementation of sustainable agricultural practices and community land planning (Outcome 1.2), communities with which the Project will be engaging. Of utmost priority, ILM planning outputs will be formally endorsed by the Indigenous Communities Elders and local Indigenous Authorities.

Output 1.2.1: Community spatial, land use and resource diagnostic assessments

90. Through support of the Project, YCT will carry out consultations with communities to identify interest in participating in land use and resource diagnostic assessments and spatial land management planning for their village/community. In a gender responsive and participatory manner,

YCT will consult and work with each community individually (identified as Aguacate, San Jose, Bladen, Indian Creek through initial consultations as part of Phase 1 of the FPIC process) to characterize their land uses (zoning exercise) and spatially identify use areas. Spatial land use identification will be carried out using a variety of possible methods, based on community preference. These can include spatial mapping using satellite images of land cover, participatory 3-dimensional mapping, amongst others. Spatial planning will focus on identifying land use categories (or a land use zones) for each individual community, based on identified land uses and community interests. Satellite imagery will be available to support spatial planning, if requested, with spatial land use maps developed. This output will link with the strengthened capacity of YCT for spatial and diagnostic planning, supported in Outcome 1.1.1.

91. Identified targeted Indigenous communities requesting support will have diagnostic assessments of land and resource uses on their community lands, such as standing forests, farmlands, residential areas, recreation, and other land use areas. Diagnostic reports will be prepared for individual communities. Assessment outputs will support identification of areas for biodiversity conservation, production, and other uses within the community zones, as well as opportunities for mainstreaming biodiversity with production activities. Deforestation monitoring and dry season monitoring of fires (Output 1.1.3) will contribute to decision making and ILM planning.

92. This output is of particular importance given the current land use pressures and forest loss due to increasing population growth in communities and the resultant expanding land clearing for agricultural production using the traditional milpa ?slash-and-burn? method. Targeted communities identified during Project Preparation include the Aguacate Community and the San Jose Community/Green Creek Farmer?s Cooperative (GCFC) having expressed interest for an assessment of community lands, sustainable planning for expansion of farmlands, and overall land use planning that integrates sustainable production and biodiversity conservation. These communities will be used as models for the other participating communities.

Output 1.2.2: Gender inclusive & ethnic sensitive community ILM planning workshop series

93. An ILM planning workshop series will synthesize and validate findings from the diagnostic report produced through Output 1.2.1 with key Indigenous community stakeholders involved in management of the production lands (farmers, herders, value-added producers, women?s groups, forest reserve agroforestry / cacao farmers, Indigenous community timber resource users, etc.). Community land diagnostic assessment will be validated with communities and a strategy for sustainable spatial land use (land use goals) will be discussed in an inclusive and gender-responsive manner. Production practices that integrate sustainable aspects of milpa traditional farming (crop rotation, slash-and-mulch, green manure, etc.) with increased use of permanent plots will be addressed, linked with outputs and community outreach associated with Component 2. Forest habitat and biodiversity will be mainstreamed into planning, with assessment findings integrated. This output will link closely with the GEF-7 UNDP Jaguar Project (GEF Project ID 10241) which liaises with communities regarding Jaguar use (potential and documented) of community forests. Delivery of this workshop series will be carried out by Ya?axch? Conservation Trust in close collaboration with key Indigenous community stakeholders, Indigenous community leaders and Indigenous authorities.

Output 1.2.3: Community ILM strategy developed and endorsed

94. In a gender responsive and participatory manner and based on outputs of the community-based assessments and validation workshop series, YCT will work with communities individually to

adapt land and resources diagnostic assessment with recommendations for land use planning, a zoning strategy, community integrated land management plan, or other planning support as requested by the individual community. This output will be generated following the effective delivery of Output 1.2.2 and will build on Ya?axch? Conservation Trust?s Indigenous Community Outreach and Livelihood Program as a baseline activity. It will translate the vision for spatial land use into the development of integrated and sustainable land use planning to achieve land use goals. The community ILM will require Indigenous community and Indigenous Authority?s endorsement.

Component 2: Strengthening Indigenous Peoples and local communities? production systems to deliver positive impacts on biodiversity in KBAs

Traditional agricultural practices in the MGL

95. Traditionally, Indigenous farmers in Toledo have a family farm or participate in keeping an extended family farm. Farming is a pivotal aspect of social life and growing crops such as corn and beans for the family to consume is an expectation that exists in the communities as well as growing commercial crops such as cocoa (Baines, 2012). Mayan communities rely on milpa farming system, typically using slash and burn, which contribute to a transient modality of land use. However, shortages of land coupled with increased population growth, has resulted in a need to adopt more sustainable approaches to farming particularly to ensure fertile soils and productivity. Farmers are being faced with less time to fallow before it is re-cleared for planting.

96. In the Maya Golden Landscape, there are seventeen communities that rely on community zones for farming and protected areas such as forest reserves for food and housing materials, of which 10 communities engage and/or are interesting in implementing sustainable production activities[101]¹⁰¹. The monitoring of the land use changes and forest cover in the MGL indicates that there are annual fluctuations in clearing of mature forests, mainly due to the agricultural frontier and escape fires from traditional slash and burn farming. Over the past decade, it has been noted that farming techniques such as agroforestry, alley cropping, and the use of green manures have become more common in Maya communities. However, not to the extent in which land clearing has been drastically minimized.

97. Through Ya?axch??s Community and Outreach Livelihood Program, YCT Extension officers have been able to understand the ecological knowledge and practices of Indigenous communities, including their social and economic values and fuse appropriate agroecological principles that are culturally appropriate and not foreign to farmers.

98. Indigenous farmers are using cover crops such as *Inga spp.*, *Mucuna spp.*, *Kudzu ssp.* to decrease the amount of time that they wait for a farming area to remain in fallow. The use of these cover crops eliminates the reliance on fire for land clearing. It also contributes to the reduction of soil erosion and loss of nutrients, contributing positively to the conservation of soil biodiversity. In addition, farmers are establishing cocoa agroforestry farms on a commercial scale, where the cocoa trees are coupled with fruit and timber trees apiaries are built for honey production. For example, the agroforestry concession in the MMNFR has resulted in Trio Farmers Cacao Growers (TFCG) generating over BZ \$ 211,950 from the sale of wet cacao beans between 2018 and 2022. Other farmers

who focus on growing vegetables, corn, beans and other root crops, there are preliminary evidence that black beans yields increase by 4 folds when cultivated in an inga alley cropping system as compared to a slash and burn area. This is attributed to the mulch which conserve moisture and adds nutrients such a nitrogen to the soil. This new approach to soil conservation however has not changed the traditional intercropping within the same plot of land. The Indigenous communities in the MGL are establishing climate resilient farms by adopting new practices into traditional farming[102]¹⁰².

99. Ya?axch? uses the Farmer Field School (FFS) approach where established demonstration plots serve as valuable teaching tools that contribute to the adoption of more sustainable farming techniques. In addition, farmers conduct peer-to-peer learning by visiting farms and farmers who implement agroforestry practices. The shift in land use and adoption of better techniques are contributing to sustainable livelihoods and biodiversity conservation in the Maya Golden Landscape (MGL).

100. Diverse, multi-strata agroforestry systems are well documented to contributing to the conservation of tropical biodiversity[103]¹⁰³, and are a critical tool in conserving biodiversity in human-dominated landscapes[104]¹⁰⁴. Agroforestry, as part of a multifunctional working landscape, can play a major role in conserving and even enhancing biodiversity from farms to the landscape level, including in tropical regions of the world[105]¹⁰⁵. As species assemblages in agroforestry systems (species composition, not richness) can differ from those in forests, the maintenance of forests within the agricultural landscape can be critical for conserving species at the landscape level[106]¹⁰⁶.

Outcome 2.1: Indigenous Peoples and local communities implement biodiversity-positive production practices in forest reserve.

101. This project outcome promotes sustainable agricultural practices in the MMNFR forest reserve agroforestry concession and community zones as a productive and sustainable alternative that supports biodiversity to the slash-and burn aspect of milpa farming. This outcome will facilitate access to NTFP concessions through supporting gaps in governance mechanisms and related guidelines, tied with Output 1.1, and will support the implementation of biodiversity positive production practices by Indigenous producers in the forest reserve concession (Figure 9, 10) and on farms on community lands (Output 2.2.1). This Outcome will incorporate strengthening of climate resilience in the communities through trainings to facilitate access to improved access to climate data, information, and available services[107]¹⁰⁷.

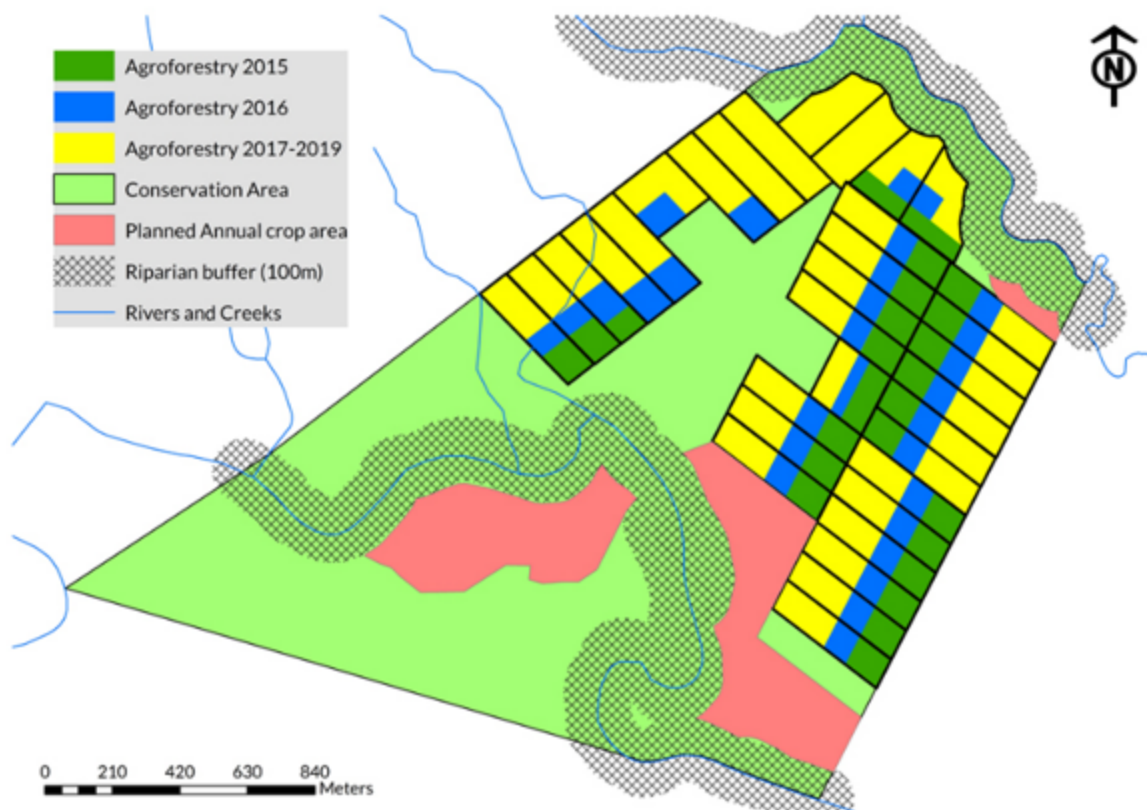


Figure 9. MMNFR agroforestry concession for livelihoods and conservation.

102. FAO will ensure the FPIC process is carried out for communities/villages that have expressed interest in participating in these components activities and that the Project will be engaging before implementation proceeds. Ten of the 17 total communities in the MGL have been identified through both extensive baseline experience since 1998 working with Ya?axche, and through Phase I of the FPIC process initiated through consultations during Project Preparation, and with whom the FPIC process will continue during Project inception phase. Table 2 identifies these communities. Of utmost priority, the activities promoted through this workshop series will be formally endorsed by the Indigenous Community Elders and local authorities prior to finalization or implementation. The FPIC process is anticipated to be completed within the 3rd quarter of Yr 1 of the Project.

Output 2.1.1: Support to Indigenous Peoples and local communities in acquiring NTFP concessionary rights in forest reserves.

103. This output will identify, outline requirements, and detail administrative and procedural tasks associated with acquiring a concession for NTFP use in forest reserves. Currently, there are no NTFP concessions for forest reserves, nation-wide. There is also no mention of NTFPs nor any information guiding access to of the use NTFPs in Forest Rules, only Forest Produce is broadly

referred to. Currently, it is left to the discretion of the Chief Forestry Officer to decide to grant a permit for extraction. This will detail procedures and requirements for an NTFP sustainable use assessment to be incorporated into/use for the development of the Forest Rule recommendations. This NTFP Use Assessment will be supported by the GSCP case study (below).

104. The procedures and requirements to develop and acquire the agroforestry concession for conservation and livelihoods[108]¹⁰⁸ for the MMNFR (in contrast to forest reserve large concessions for timber extraction) will help guide the development of the requirements and process needed for NTFP concessions. While an agroforestry concession and an NTFP concession have completely different scopes, the agroforestry concession procedure will serve as the precursor for the NTFP, and the processes can learn from each other. For the MMNFR, this took 5 years to put in place given it was the first agroforestry concession of livelihoods and conservation and there were no guidelines or procedures to follow. This model for the agroforestry concession was developed by YCT and with financial support from the GEF-SGP, amongst other organization. Three documents were ultimately produced that outlined the terms and conditions to which the parties committed:

1) Forest Rule 23 Permission to Cultivate, passed in 2014, granting legal permission for Ya'axch? (and its associates) to cultivate inside of MMNFR. Agroforestry was indicated in general, with no mention of cacao agroforestry.

2) The Concession Management Plan, signed in 2015, outlining Ya'axch?'s management and implementation strategy; and 3) The Conservation Agreement, signed in 2016, between all parties (Ya'axch?, Forest Department, Trio Farmers Cacao Growers Ltd (TFCG) that established the conservation rules and regulations to be followed within the concession[109]¹⁰⁹.

105. This output will form the basis for; 1) the development of the National Forest Policy Guidelines and Forest Rule recommendation (Output 1.1.1), and 2) facilitating future NTFP concession requests to the Forest Department that can be supported with clear guidance for CBOs, farmers, and farmer associations. Education and outreach materials targeting Indigenous communities in the MGL and will be supported and linked with Ya'axch?'s Community Education and Outreach Programme sustainable production trainings in Output 2.1.2.

106. A pilot NTFP Use Assessment will be carried out in the GSCP using cohune palm leaf (*Orbignya cohune*) to support the development of the above-mentioned National Forest Policy NTFP framework/guidelines and Forest Act Rule recommendation. Currently, there are no NTFP concessions in forest reserves. Permission was granted by FD for the beekeepers to set up their apiaries in MMNFR, supporting Belize's National Beekeeping Policy (2019). Hence, through this pilot, identifying the process for assessing the sustainable use of an NTFP (NTFP Use Assessment) and developing a Sustainability Plan with biodiversity safeguards will be developed, and other implementation and use guidelines determined. The information gathered will help the Government of Belize to determine the way forward in granting NTFP permits in forest reserves.

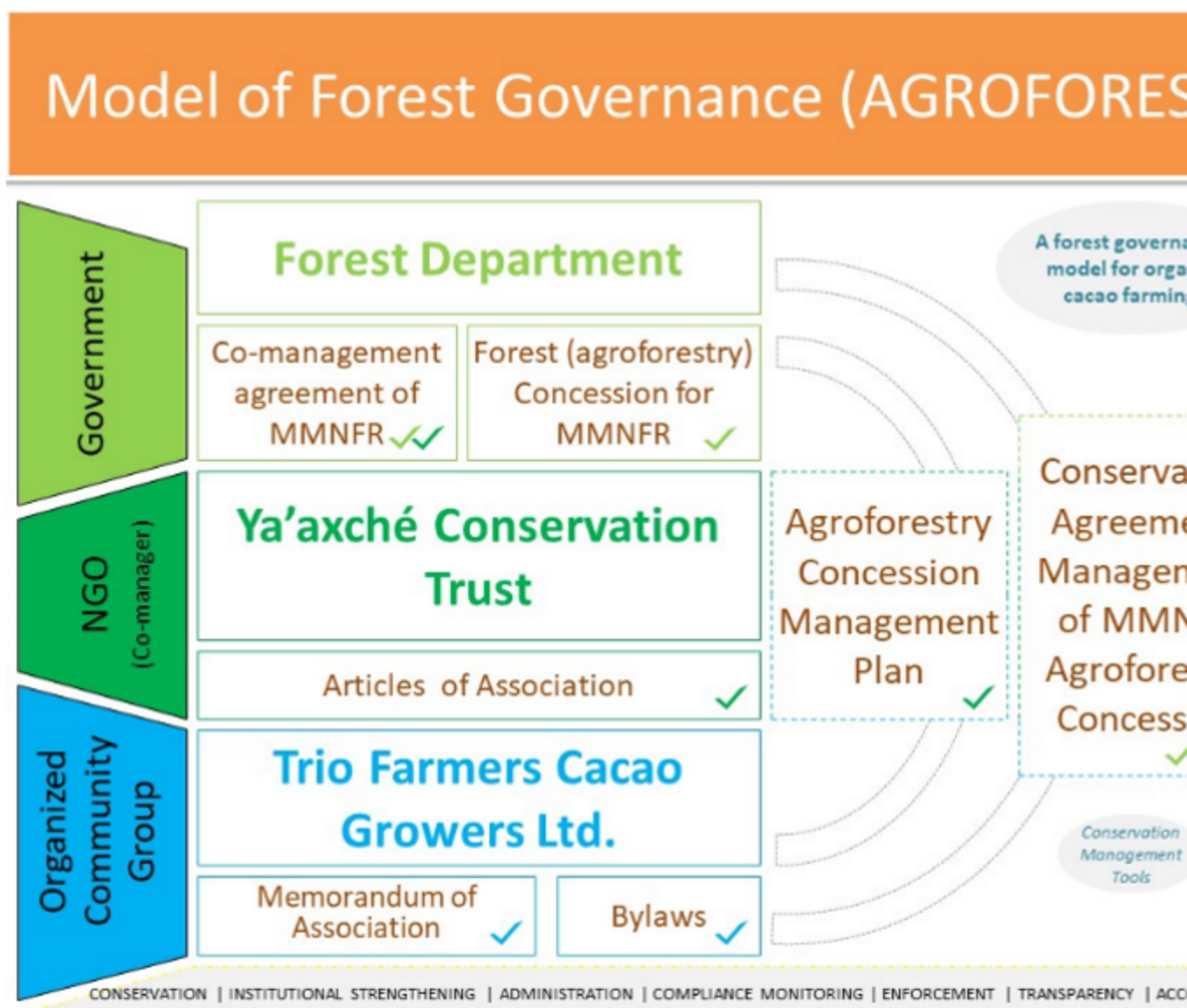


Figure 10. Model of forest governance for community agroforestry concession in MMNFR^[110]¹¹⁰

107. The GSCP will be used as the model for sustainable NTFP extraction. Three villages lie directly adjacent to the GSCP (Golden Stream, Tambran and Medina Bank). To recognize traditional use of forest resources by these villages, Ya'axché Conservation Trust has developed a sustainable extraction program in the preserve for selected traditional building materials, including cohune palm leaves (Orbignya cohune). This sustainable extraction area is limited to the edges of the corridor to maintain the site's ecological function but represents Ya'axché's commitment to Integrated Landscape Management which recognizes the need for multiple uses of forest, including for livelihood, and the ability to extract sustainably.

Output 2.1.2: Implementation of biodiversity positive production practices in line with forest reserve concessions.

108. This output seeks to provide Indigenous communities with technical assistance and production implementation support for their agroforestry concessions in the MMNFR and farms in community zones (Output 2.2.1 below) neighbouring the forest reserve. Cocoa agroforestry implementation and management support and trainings will be aimed at promoting sustainable (organic) production, soil health with increased productivity, NTFP use, and farming techniques such as alley cropping and the use of green manures. This output will support these alternatives to slash-and-burn aspects of milpa farming, ultimately to reduce forest loss and the biodiversity it supports. This output's trainings will also include information on climate-smart agricultural practices, as well as trainings on accessing, the benefits, and uses of climate information (including hazards related to production systems) [111]¹¹¹. This output will expand YCT's support to individual farmers and farming co-ops/association in implementing and maintaining sustainable NTFP collections and farming techniques in line with forest concessions. This output will build on and expand on YCT's existing Community Outreach and Training Programme of support for production of NTFPs and agroforestry practices in line with forest reserve concessions, including beekeeping, cocoa production, plot maintenance, and others. Technical support, equipment, expanded trained extension service, and additional outreach will be provided. See Outcomes 2.1 and 2.2 that address training and outreach associated with these production practices.

109. Beekeeping and cacao agroforestry Farmer Field School curriculum have been developed by YCT, training modules at Basic/Intermediate/Advanced levels which are aligned with forest reserve concessions. This Farmer Field School (FFS) curriculum will be scaled up by the Project, reaching existing and new producers in community zones. A Training-of-Trainer's initiative will be expanded to extend its reach to communities throughout the MGL's community zones. This expanded outreach and FFS curriculum will be carried out producers/farmers in both forest reserve concession and community zones (combined with Outcome 2.1 and 2.2) and will include; 1) expanding the number of farmers that the FFS will engage (individual farmers, farming association / co-ops, post production NTFP users, beekeepers, cacao producers, etc.) to implement and maintain sustainable farming, NTFP collection and plot maintenance techniques in line with forest concessions, including use of equipment; 2) on-site farm / producer training and technical support to existing and new farmers, with technical support to include use of equipment, production techniques, other sustainable production and maintenance support, 3) demonstration sites / model farms (new farms covering 100 ha implemented by 70 new)farmers, 4) strengthened YCT outreach and extension services, and 5) expanded training on biodiversity friendly sustainable agricultural production practices to the Ministry of Agriculture Extension Service at the national level targeting small holder farmers throughout Belize's 6 districts.

Outcome 2.2: Indigenous Peoples and local communities implement biodiversity-positive production practices in community zones to support income generating opportunities for both men and women.

110. This outcome seeks to provide technical assistance and production support to Indigenous Peoples and local communities to implement production practices in Community Zones that support income generating opportunities for both men and women, reduce forest loss from traditional ?slash-

and-burn? aspect milpa farming while retaining traditional milpa farming practices that are sustainable (given current pressures from population growth and demand for land) and that reduce forest loss and its component services for biodiversity. In the Maya Golden Landscape, there are seventeen communities that rely on community zones for farming and protected areas such as forest reserves for food and housing materials, of which 10 have initiated and implement sustainable agricultural practices and are supported by YCT. The remaining 7 Indigenous communities, through YCT's years of community outreach in the MGL, have clearly expressed lack of interest in sustainable agricultural practices, and thus YCT and the Project will not engage these 7 communities. As with Outcome 2.1, these 10 communities will continue to be supported by YCT's activities, enhanced, and expanded through this GEF funding. Over the past decade, farming techniques such as agroforestry, alley cropping, and the use of green manures have become more common in Maya communities. These shifting activities reduce forest loss, supporting biodiversity, and accommodate the Maya tradition of expanding family farms.

111. As indicated above (Para 109) all training and implementation support will be carried out for producers/farmers in the 10 communities in the Community Zones as well as for the forest reserve concessions (Trio Community farmers)

112. As with Outcome 2.1, the FPIC process will be carried out with the Indigenous communities with which the Project will working, which will continue be determined based on expressed community interest and approval by Indigenous Elders for participation in these Project activities that supports ongoing work in the MGL promoting sustainable production practices. The first phase of Free, Prior and Informed Consent (FPIC) process was initiated through consultations with 10 communities which have expressed interest in project supported activities focused implementation of sustainable agricultural practices. These are communities with which YCT has been engaging and supporting implementation of sustainable agricultural practices since 1998. The communities were, and will continue to be, approached on a village-by-village basis as consultations and FPIC process continues. A Preliminary Indigenous Peoples Plan for participation has been drafted as part of this detailed design process, to be reviewed, the FPIC process completed and activities for the above mentioned 10 communities approved prior to the implementation of these activities. The FPIC process is anticipated to be completed within the 3rd quarter of Yr. 1 of the Project.

Output 2.2.1: Culturally sensitive and gender responsive trainings and technical implementation support delivered to Indigenous Peoples and local communities promoting biodiversity-positive farming and forest habitat conservation on community lands.

113. A culturally sensitive and gender responsive training program will be detailed, expanding existing training modules in cacao agroforestry and inga alley cropping to Indigenous community producers, incorporating climate resilient processes, supported by an Agronomist (consultant). Apiculture training will be conducted for existing and new beekeepers, ensuring women participation. End of training assessment surveys will be carried out to assess knowledge gained by farmers. Two YCT field officers will receive certified training in agronomy, building internal capacity, including to conduct training-of-trainer courses. YCT's Agroecological Module, part of its Community Outreach and Livelihoods programme, incorporates YCT's farmer's field guide for agroecological production and processes^[112]. This guide to agroecology principles further expands on, and incorporates, trainings on climate-smart agricultural practices, and will include the trainings on accessing, the

benefits, and uses of climate information[113]¹¹³ (including hazards related to production systems, climate forecast) to relevant stakeholders (field extension officers, researchers, and local stakeholders). Training-of-trainer course on the will be provided to Ministry of Agriculture Extension Officers from throughout Belize's 6 Districts, where knowledge exchange regarding best practices that are both sustainable and climate resilient can take place. The Project will liaise with the UNDP-GEF *Integrated management of production landscapes to deliver Multiple Global Environmental Benefits Project's*, anticipating extension of this YCT's Training-of-Trainer Programme to the Project's 2 new Ministry of Agriculture Extension officers within the Belize River Watershed to further support its sustainable production and watershed management work.

114. The capacity of producers will be strengthened through an expanded training programme. This will include trainings and dissemination of training materials. Multiple annual training sessions will be carried out based on YCT's existing modules in climate-smart agricultural practices, sustainable production, agroecological measures, cacao agroforestry and inga alley cropping with community farmers to support existing and new cacao agroforestry producers to increase their knowledge in climate-smart agriculture practices and practices that support biodiversity (birds, migratory species, key target species for conservation including Jaguar, Geoffrey's spider monkey (*Ateles geoffroyi*), Yucatán Black Howler Monkey *Alouatta pigra*, yellow-billed peccary and other species identified through the biodiversity assessment (Outcome 1.1). In addition, an Agronomist will be brought in to enhance training sessions. and modules will expand to community zones throughout the MGL and beyond through the Training-of-Trainer Programme. A Training-of-Trainer course of the YCT Agroecological Module will be carried out with Ministry of Agriculture Extension Officers throughout Belize's 6 districts so that knowledge can be disseminate beyond the MGL. Furthermore, at least two field officers of Ya'axch' will be trained in agroecological systems (advanced trainer course), creating sustainability by building internal capacity to conduct future Training-of-Trainer course. This specific training will take place at Instituto de Investigaciones Fundamentales en Agricultura Tropical "Alejandro de Humboldt" (INIFAT) in Cuba focusing on organic fertilizer production, identifying common pests on crops and how to mitigate their effects on the farms[114]¹¹⁴.

115. Technical implementation support extended to farmers across the MGL community zones will be supported by hiring of a concession farm manager and 2 YCT extension officers for the project duration's (all to be hired by YCT as full-time staff post project completion). Agroforestry farmlands (100 ha) across 10 communities will be established demonstrating sustainable production practices, includes hand agricultural tools and saplings for farm establishment. International exchange visits (2) will be conducted with at least 10 farmers to encourage peer to peer learning with experienced farmers to share knowledge and challenges encountered, with participation surveys at the end of the international exchange visit to gain feedback. Bee apiaries will be established across 10 communities involving at minimum 30% women. Green-value chain support is addressed in Output 2.2.3. Extension / Information services is critical for the enabling of sustainable increase the productivity and profitability of smallholder farmers. YCT provides this service through its Community Outreach Program and existing training modules for agroforestry and beekeeping (above). Project support will expand this programme to increase farmers and farming communities reached, targeting producers throughout the MGL.

116. The output adopts key lessons from the Food and Agriculture Organization (FAO) of the United Nations intervention 'Capacity Development Support to Rural Women on the Socio-economic and Gender Aspects of Sustainable Rural Development', with the ultimate objective to promote rural women's socio-economic integration and enhance their income generation skills, by increasing rural women's capacity and improving the design and delivery of gender sensitive agricultural extension and rural advisory services[115]¹¹⁵. This approach combines different capacity development modalities, development of training-of-trainers' material, pilot training of rural women, field visits, the objective to increase extension capacity to design and deliver gender-sensitive training to both female and male farmers.

117. Extension / Information services is critical for the enabling of sustainable increase the productivity and profitability of smallholder farmers. YCT provides this service through its Community Outreach Program and existing Training modules for agroforestry and beekeeping. Project support will expand this programme to increase farmers and farming communities reached, targeting communities throughout the MGL. Modes of information exchange will expand in scope (train-the-trainer, international exchanges)

Output 2.2.2: Strengthened market linkages through action-learning processes between small scale farmers (specifically targeting women, youth, Indigenous Peoples, and local communities) and local and regional markets, to support conservation through biodiversity-friendly production practices.

118. Practical action-learning activities on agriculture / NTFP value added and market access will be provided to women members of the targeted communities using a gender sensitive approach. The Project will support 2 unique value-added products from the Indigenous community, with support for training, business planning, processing, ensuring products are properly labeled, packaged, and marketed nationally. This includes practical trainings on value added agricultural processing methods and/or production techniques for agricultural products typically managed by women (i.e., cocoa nibs, chocolate, vanilla, honey, and/or others based on stakeholder consultations) and will provide an additional stream of income for households. The project aims to develop the skills of the women group in quality control while also strengthening the product for international market access. Synergies and support from FAOs *Development in Northern Belize Project* on value-chains will be further explored that can support this value-added production and market access being implemented by this Project.

119. Training demonstration will include practical pilots on processing of NTFP, extending knowledge of the forests provisioning of the raw material for value added production, and ultimately forest value for livelihoods. Special attention will be given to ensure market access to locally produced products. Trainings will be delivered in line with the practices promoted within the inclusive and participatory farming module (Output 2.2.2). Business planning will be integrated into training, with the development of 2-4 business plans supporting youth or women lead enterprises. These business plans will build on YCT's successful business planning support for value-added production and sales, including for the Indian Creek Mayan Arts Women's Group Business Plan 2020 - 2021, and the Marigold Women's Cooperative Society Ltd, founded in 2011 by 7 women to promote the Q'eqchi Mayan Culture by continuing their *Mayan traditions* and sharing them with others. Both initiatives are based in the Maya Golden Landscape, and were funded through the EU Global Forest Project, ICCO and the REDD+ and FLEGT.

120. In addition, a cacao agroforestry fermenting, drying, and processing pilot will be carried out in by the Trio Farmers Cacao Growers (TFCG), retaining 10 % of their wet cacao for the pilot. Currently, all cacao is purchased wet by Maya Mountain Company, with value added benefits to processed cacao not remaining within the producers, as is for all cacao farmers throughout the MGL. A value chain analysis will be carried out for fermented and dried cacao. A small cacao drying deck and processing facility will be established, trainings on fermenting, drying, and quality control of cacao beans established, and pilot fermentation trials with cocoa beans from the agroforestry concession in MMNFR will be carried out.

121. Production from the MMNFR cacao agroforestry concession continues to increase, from 3,550 pounds in 2018 to 112,000 pounds in 2022. Currently the market price is \$1 Belize dollar per pound of wet beans, while the market value of processed cocoa is significantly higher (\$2.43 USD per kg in 2021). Farmers indicated^[116]¹¹⁶ that production costs for wet cacao are high compared to purchase price received from Maya Mountain Cacao. Supported by a value chain analysis and determining processing costs (through this project), cacao producers want to add value to their cacao through processing and selling fermented and dried cacao beans and increased income to support their livelihoods.

122. The MMNFR agroforestry concession, through YCT, is farmed by the Trio Farmers Cacao Growers Association (TFCGA), a group of 35 farmers in Trio village. TFCGA was formed as a registered cooperative under Chapter 313 of the Cooperative Societies Act in 2011 with the intention of securing land inside MMNFR for the purposes of practicing agroforestry. TFCGA contacted Ya?axch? in 2012 to seek assistance due to Ya?axch??s promotion of agroforestry in the Maya Golden Landscape. Subsequently, Ya?axch? was granted a permit to manage a 379 ha (936 acre) agroforestry concession within MMNFR for a duration of 15 years. Ya?axch? have selected TFCGA as the most suitable community group within the local area to cultivate the concession. This pioneering initiative by Ya?axch? provided a means by which the Trio community can exercise sustainable agriculture along the inside of the MMNFR boundary, to halt the unsustainable advance of the agricultural frontier from the de reserved areas outside the MMNFR boundary and provide the community with sustainable forms of livelihood. Since YCT forest reserve management began, MMNFR ranked 12th out of 56 evaluated Protected Areas in Belize in the national Protected Area Prioritization exercise in 2012^[117]¹¹⁷, and is also recognized as a Key Biodiversity Area (KBA) that has been prioritized for increased management effectiveness and protection under the Global Environment Facility ? World Bank *Key Biodiversity Areas* project (2015-2020).

Component 3: Knowledge Sharing and Project M&E

Outcome 3.1: Project knowledge is managed, systematized, and disseminated.

123. This component will systematize and disseminate best practices, and lessons learned about sustainable traditional production practices with Indigenous communities, biodiversity conservation and integrated land management in production landscapes both within forest reserves and community zones to make these available in other production landscapes in the Toledo District and Belize. YCT training modules and associated training and instruction materials will serve as a reference guide for

improving knowledge gaps that exist amongst current farmers within the Indigenous Community Zones, as will all other means of information exchange outline in the outputs below. Information and best practices will be broadly shared throughout the MGL, Indigenous and community producers, other CBOs, private sector, the broader public, GEF and other development partner projects, division of governments, and others. It will support adaptive management to ensure that the project integrates lessons learned throughout implementation of the activities, ensuring cultural and gender sensitivity, including through the implementation of the Gender Implementation Plan, supporting FAO Policy on Gender Equity 2020-2030. In addition, Project-level M&E will be undertaken in compliance with FAO policy requirements.

Output 3.1.1: Experiences, best practices, and lessons learned captured, exchanged, and made available through multi-stakeholder forums and various platforms to support use in forest reserves and production lands in the MGL and in landscapes elsewhere in Belize.

124. Multi-stakeholder forums, community presentations, and discussion groups to support information exchanges and gathering lessons learned will be conducted. These will include Indigenous peoples, private sector, conservation trust, NGO, and Government of Belize to share knowledge related to Indigenous technical knowledge and best practices, including sustainable production techniques, land use planning, the inclusion of women and youth and the activities of the Gender Implementation Plan. A Knowledge Management Strategy will be developed to systematize knowledge and lessons learned. Peer to peer learning among model farmers in the MGL will be conducted, and a farmer's exchange program with farmers from northern and western Belize with MGL farmers will be developed and implemented to highlight production techniques, best practice and lessons learned. These forums will also give Indigenous communities a platform to exchange knowledge and ideas, to discuss issues related to lessons learned from execution of project activities, forest management, sustainable land use and mainstreaming of biodiversity in land management and production activities. Videos, social media, multimedia, radio, written and other forms of information exchange will be carried out whereby groups of farmers are given the opportunity to visit other farmers to learn about improved production techniques. Lessons learned will be shared in the form of case studies disseminated through social media, outreach, and communication packages and/or any other effective means of communication, all of which will be integrated into a communication plan developed for the Project. An annual Ya'axch' Farmers Expo conducted. Delivery of this output will be carried out by Ya'axch' Conservation Trust. Knowledge sharing and dissemination is also carried out throughout the Project's implementation period, through Outcomes 2.1 and 2.2.

Output 3.1.2: Project knowledge and lessons learned are systematized and monitored to support Project adaptive management.

125. This output will systemize knowledge gained through the execution of Project activities at the Project management level, stakeholder engagement level, and implementation level to gather lessons learned from Project activities. This will be carried out on an annual basis to internally inform Project's management team and Project Coordinating Unit of its execution and implementation. This process will engage Project stakeholders and beneficiaries of Project implementation status. Lessons learned and best practices will be gathered, and to support internal adaptive management as needed. This systemization will occur at several levels, including at the project management level, stakeholder involvement and management level, and during the implementation of project activities to document best practices and knowledge generation at the local level.

126. The lessons learned and best practices will be compiled, collated, and packaged into several formats (e.g., brochures and flyers, electronic forms, short videos, and impact documentaries) that are geared towards specifically targeted groups and audiences, using community groups and/or NGOs to assist in capturing lessons learned and best practices. These products will also serve to build and enhance community stewardship as well as awareness of the project activities and to measure the project's impacts. The dissemination of information will allow the replication and the scaling-up of best practices in other areas of ecosystem connectivity, production landscapes, and watersheds in the country.

Outcome 3.2: Monitoring & Evaluation strategy implemented–

During the Project preparation phase, significant outreach was made to Indigenous groups who will be impacted by project activities under Component 2. These consultations will be accompanied by a process to obtain full FPIC of the final project document during the Project's Inception Phase (see Output 2.2.1), and Project activities will be amended based on the outputs of the FPIC process. The project includes three safeguard plans?gender, Indigenous Peoples, and stakeholder, which will all be carefully monitored along implementation of both Mid-term and Terminal Evaluations.

Output 3.2.1: Project monitoring and evaluation strategy carried out.

127. M&E of the project's implementation will be conducted following GEF and FAO's guidelines and according to the M&E plan described in Section VII of this project document. The main tasks of the M&E plan include an inception workshop, annual monitoring of indicators in project results framework, annual project implementation reports (PIR), annual NIM Audits, third party monitoring spot-checks, ongoing monitoring of environmental and social risks, ongoing monitoring of the Stakeholder Engagement Plan and the Gender Action Plan, Project Board meetings, oversight mission by the FAO team, mid-term and terminal GEF7 core indicators updates, and an Independent Mid-term Review (MTR) and an Independent Terminal Evaluation (TE), among other activities. M&E of the project's implementation will include monitoring of this Projects contribution to global environmental benefits, and the effectiveness of achieving results outlined in the Project's Strategic Results Framework, including for Project beneficiaries.

128. The Project's Gender Action Plan will be monitored throughout Project implementation to ensure that gender is effectively and appropriately mainstreamed. The gender analysis prepared as part of the PPG provides the baseline information for the development of a Gender Action Plan (Annex G); the implementation and monitoring of the plan will be supported in this output, ensuring that effective and culturally appropriate gender equality/women's empowerment supports biodiversity conservation, ILM, and sustainable production. Best practices and lessons learned on gender mainstreaming will be documented and shared. A Gender Specialist will advise the Project's Management Unit and will be responsible for supporting YCT in the implementation of the Gender Action Plan, working closely with the M&E Specialist and Safeguards Advisor.

4) Alignment with GEF focal area strategies

129. The project is aligned with GEF-7 Biodiversity Focal Area, Objective 1: BD-1-1. Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors. This includes improved and more biodiversity-friendly production practices and land

management in protected areas and community lands in Component 1: Integrating conservation and production planning in KBAs. Both its component outcomes contribute to this objective: Outcome 1.1: Forest reserves in KBAs conserve biodiversity and promote sustainable production through integrated landscape management (ILM), and Outcome 1.2: Community zones in KBAs conserve biodiversity and promote sustainable production through ILM. Component 2: Strengthening Indigenous Peoples and local communities? production systems to deliver positive impacts on biodiversity in KBAs also mainstreams biodiversity through supporting biodiversity-positive production practices through its Outcome 2.1: Indigenous Peoples and local communities implement biodiversity-positive production practices in forest reserves and Outcome 2.2: Indigenous Peoples and local communities implement biodiversity-positive production practices in community zones to support income generating opportunities for both men and women. All this work will support improved landscape level management of forest reserves and community lands in the Project's intervention sites (Pas and community lands) and the Project's area of influence (Maya Golden Landscape).

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

130. Addressing Forest cover loss within the MGL has long been recognized as a threat to biodiversity, the southern Belize and Mesoamerica Corridor as well as the resources the forests provide for rural livelihoods of the Indigenous communities adjacent to these forests, most of which lie within the Belize National Protected Area System.

131. Through the incremental support of the GEF, the Project will support Belize in the removal of the identified barriers to effective forest conservation and the reducing the increased rate loss of forest cover and its biodiversity in the MGL. This will be done through support for and promoting of; biodiversity friendly sustainable agricultural practices, integrated and sustainable land management to reduce forest loss through sustainable forest resource use, enhance forest connectivity and conserve Belize's rich biodiversity.

132. Under Component 1, this will be done through strengthening policy mechanisms to support sustainable resource use that benefit livelihoods, strengthening national and local capacities for landscape scale integrated spatial land management and conservation planning for forest reserves, and increasing monitoring of land use/land cover changes and biodiversity. Through these initiatives, the incremental support by GEF will enhance rural livelihoods of Indigenous Mayan People in communities surrounding the Maya Mountain North Forest Reserve, reducing the threats associated with forest and biodiversity loss. Integral is capacity building and trainings, both to support enhanced delivery of Project outcomes and future sustainability, as well as supporting Indigenous People's land management and biodiversity conservation capacities, provided only as requested by individual communities.

133. Under Component 2, GEF incremental financing will be used to enhance sustainable agricultural practices in the MMNFR forest concession for livelihoods and conservation and in Indigenous communities in the MGLs community zone. These activities will expand on ongoing

activities and efforts by YCT to promote sustainable and culturally sensitive agricultural practices and value-added production to reduce increasing demand for production land and its associated forest loss due to population growth. This GEF increment will support livelihoods generated by both men and women both through technical support and capacity building. This GEF increment is designed to enhance action and build sustainability, replicability and scaling up post project completion.

134. Finally, under Component 3, the GEF incremental financing will support activities related to the development of the project's M&E system (including staff and data collection), knowledge management and sharing, including lessons learned through multiple media, including case studies and producer exchanges.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF / SCCF)

135. The global environmental benefits representing key expected project outcomes are as follows:

- ? Improved conservation and management of 60,106 ha of protected areas for forest and biodiversity in the MGL intervention areas. GEF7 Core Indicator 1. This includes 13,568 ha of terrestrial KBA (MMNFR).
- ? Improved management of 34,893 ha of landscape in community zones to benefit biodiversity, forests, and livelihoods. GEF7 Core Indicator 4.
- ? Species of Conservation Concern including Baird's Tapir *Tapirus bairdii*, Jaguar *Panthera onca*, Jaguarundi *Puma yagouaroundi cacomitli*, Margay *Leopardus wiedii*, Ocelot *Leopardus pardalis*, and the Great Curassow *Crax rubra*. Avoided emissions of 6,849,616 tCO₂eq over a 4-year Project period. GEF7 Core Indicator 6.
- ? Direct beneficiaries: 1,176 from 10 of communities, of which 50% are women, 12 from Government and 2 from YCT
- ? The project will directly contribute to the Sustainable Development Goals (SDGs), particularly SDG-15 Life on Land: Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss; SDG-13 Take urgent action to combat climate change and its impacts; and SDG-5 Achieve gender equality and empower women and girls, SDG 1: No poverty, by targeting vulnerable small farmers (men and women equally) and supporting sustainable production practices that will contribute to food security, SDG 8 ? Decent work and economic growth, by focusing on production sectors (agriculture and forestry) that employs a large sector of the population and adding value to selected products and decoupling economic growth from environmental degradation; and SDG 13 ? Climate action, by building ecosystem resilience to climate change and mitigation greenhouse gas (GHG) emissions.

7) Innovation, sustainability, potential for expansion and capacity-strengthening

Innovation

136. The Project includes innovations through various parts of its strategy that will also contribute to its sustainability and scalability. At the governance level, the Project will be developing National policy framework/guidelines and a Forest Act Rule recommendation to integrate sustainable NTFP concessions and use within forest reserves nationally, and that recognize socio-economic and cultural processes of Indigenous producers. Information dissemination and knowledge management around biodiversity supported sustainable production practices within the MGL, promoted through this Project and YCT's continued work, will include mechanism to extend well beyond the MGL to all of Belize's districts, for example through training of Extension Services and farmer exchanges with producers in other Districts of Belize. Most noteworthy, innovation is inherent in the sustainable production practices that support conservation (promoted by YCT, supported by this Project) through their continued integration of traditional Maya production practices through without slash-and-burn forest removal and the resultant forest loss. Demonstration farms will be developed for replication that demonstrate best practices integrating education and outreach that will support their integration. Innovation is also apparent with the Project's on the ground technology that assist in the geotagging / georeferencing data collection process (camera traps, drones etc.), which while not new technologies, represent technology not broadly promoted before in Belize. Furthermore, the project's alignment with the national forest monitoring system developed by the REDD+ readiness / additional finance projects are also key to linking this process with national carbon accounting and GHG inventory management systems. Monitoring may also include aligning with SEPAL and Collect Earth software and the deforestation alerts provided by these systems.

Sustainability

137. The project has been carefully designed to strengthen ongoing programmes and policies within the MGL that invest in reducing forest loss and supporting livelihoods and biodiversity through sustainable production practices and integrated land management. The project has built into its design long-term consideration such as capacities, systems and programmes that build in sustainability, innovation, and replicability to help ensure continuity post project completion.

138. Social sustainability. Social sustainability will be pursued through the direct participation of Project beneficiaries, primarily Maya Indigenous People in the MGLs community zones, whose livelihoods will be strengthened through production practices that reduce their community's forest loss, improve production productively with healthy soils and reduced forest loss, which also supports social sustainability through traditional extension of family farms to new family members that is not limited by forest availability as population pressures increase and communities grow. Social sustainability will also be achieved through the strengthening and primary involvement of CSOs, primarily Ya'axch' Conservation Trust, individual producers, and producer groups through the gender-responsive trainings, field-exchanges, technical assistance related to the adoption of the biodiversity supported sustainable production practices and value-added production of forest products.

139. Environmental sustainability. The foundation for environmental sustainability of the project is based in the promotion and support for implementation of biodiversity-friendly sustainable production practices that will reduce forest and biodiversity loss in the MGL, and by including principles of sustainability into interventions for natural resource management practices and integrated

landscape planning. Environmental sustainability will also be ensured through the strengthened governance measures for access into forest reserves for NTFP extraction, ensuring conservation and sustainability plans are incorporated into its extraction, including outputs of use assessments. Management planning will support conservation targets, based in strengthened data collection and monitoring frameworks, prepared in conjunction with and submitted to the FD for government endorsement.

140. Institutional sustainability. Institutional sustainability will be achieved through strengthening the governance, capacity and systems of the environmental and biodiversity management governmental agencies and non-governmental organizations, producers and producer organizations, and the private sector in a gender inclusive manner that supports protected areas, biodiversity conservation and sustainable production in the integrated productive landscape. This Project's Executing Partner (YCT) and co-managers (with the Forest Department) of the 3 PAs, is a private conservation trust that is supporting sustainable land use and biodiversity conservation for the Project's intervention area (MGL). Institutional sustainability will also be achieved at the local level through the Project's support of producer organizations through business planning and market support for value-added products, focusing on women's contribution. Capacity development and technical support developed within YCT, government agencies and the local communities, all in an inclusive and gender responsive manner, will build sustainable systems and country driven efforts post-project completion. YCT, this Project's Executing Partner, has been supporting sustainable production and conservation planning within the MGL since 1998 and has formal co-management arrangements for PAs with the FD. Building sustainability through YCT as well as the Government of Belize supports country ownership and improved capacity to continue scaled up project activities during and post project completion. For example, all full-time personnel (9) hired to work with YCT and trained by the Project will all be hired as full-time employees post-project by YCT to continue the Project supported work. Indigenous community producers and producer association wanting continued support for sustainable production, planning and conservation support will have this scale up capacity and technical support from YCT.

141. Financial sustainability of the project's outcomes will be achieved through long-term systemic changes within YCT and government agencies. For this Project, this is particularly true for co-management arrangements (YCT) that integrate financial sustainability of Project investments for post-project continuity and will be an example for replicability and scaling-up of good practices and lessons learned. Integration of project investments into existing national institutional systems (i.e., supported by equipment, training programmes, database/data enhancements and knowledge management) will further ensure national ownership and post-project sustainability of investments, including expanded monitoring programmes and/or upgraded spatial technical systems/GIS. Financial sustainability at the community and producer level will also be achieved through support for sustainable livelihood activities that can be replicated and scaled up through market identification (i.e., cacao processing, NTFP value-added products, honey, etc.), and business planning and development.

Replication/Scalability

142. The Project is designed to enable systems and practices put in place through project implementation to continue be scaled up. This Project currently is scaling up and supporting systemic change to practices and programmes initiated in the MGL by YCT. Through Project interventions; 1) systems are put in place, 2) best practices expanded to ensure replicability and scalability (training of trainer, expanded extension services, enhanced biodiversity monitoring and scale, MGL Data Management System, data management system integration with NBIO, etc.), and 3) lessons learned from sustainable production practices that support biodiversity and forest conservation and integrated land management interventions will facilitate post project continuity and scalability. Furthermore, governance structures supported scaling up activities (i.e., sustainable NTFP extraction) and capacity for communities? producers, with demonstration/model farms and related training programmes in place to support continued replicability and scalability. Of particular significance is the expanded capacity within YCT to scale up initiatives during Project implementation. Given that these capacities (i.e., Project staff that will be hired as permanent staff post Project completion) will remain within YCT, a long-standing co-manager and conservation trust working in the MGL, replicability, scalability and sustainability of programmes and interventions are likely ensured.

8) Summary of changes in alignment between project design and the original PIF

143. **Table 3:** Changes in relation to the PIF

Project Outputs (PIF stage)	Project Outputs (ProDoc)	Explanation of adjustments
Component 1: Integrating conservation and production planning in KBAs		

<p>Outcome 1.1 Forest reserves in KBAs conserve biodiversity and promote sustainable production through ILM.</p>	<p>Outcome 1.1 Forest reserve in KBA conserves biodiversity and promote sustainable production through ILM.</p>	<p>The outcome is changed to indicate one FR for which and Integrated Land Management Plan will be written. There is only one FR among the Project's 3 priority areas of intervention (in PAs), co-managed and/or owned by the GoB's appointed Project Executing partner, YCT, which does not manage the Deep River Forest Reserve indicated in the PIF. The other 2 priority PAs are 1) Bladen Nature Reserve and the GoB's most strictly protected PA with no resource use permitted, and 2) the GSCP owned by YCT with sustainable resource uses permitted except small subsistence NTFP extraction by YCT permit only.</p>
<p>Output 1.1.2: New biodiversity-friendly non-timber forest products (NTFP) policy developed, support ILM in selected forest reserves</p>	<p>Output 1.1.2 New National governance structures support biodiversity-friendly non-timber forest product (NTFP) use in forest reserves.</p>	<p>The use of NTFPs in forest reserves is included in the National Forest Policy (2017). The National Forest Policy Statement 5 encourages the use of NTFPs, and indicates requirements for implementation of this Policy Statement, including developing a policy framework/guideline to access NTFPs by local communities, promoting research on NTFPs, and establishing small forest product processing enterprises. However, this policy framework/guideline has not been developed. This output was changed to support this Policy Statement, and to develop the framework/guideline for sustainable and biodiversity supported NTFP extraction.</p>

Output 1.1.3: Community - based monitoring system designed to support ILM conservation targets in forest reserves	Output 1.1.3: Community - supported monitoring system designed to support ILM conservation targets in forest reserves	The monitoring will be a combination of monitoring of land cover/land use change using satellite image interpretation and fires data from MODUS, as well as community-based monitoring activities carried out in conjunction with YCT. The wording was changed to better reflect the varying modes of monitoring that will take place.
Outcome 1.2: Community Zones in KBAs conserve biodiversity and promote sustainable production through ILM	Outcome 1.2: Community zones adjacent to KBA conserve biodiversity and promote sustainable production through ILM	While the BNR forms part of the Maya Massif KBA, there are no community zones adjacent to this KBA (only adjacent to the MMNFR), thus KBAs was changed to KBA. In addition, 'in' was changed to 'adjacent to' as the MGL Community Zones are located adjacent to this MGL KBA (MMNFR), not within.
Output 1.2.3: Community ILM action plans developed and endorsed	Output 1.2.3: Community ILM strategy developed and endorsed	The use of the word 'strategy' is replacing 'action plans'
Component 2: Strengthening Indigenous Peoples and local communities' production systems to deliver positive impacts on biodiversity in KBAs		

<p>Output 2.2.1: Culturally and gender sensitive trainings delivered to Indigenous Peoples and local communities promoting biodiversity-positive farming and forest habitat conservation on community lands</p>	<p>Output 2.2.1: Culturally sensitive and gender responsive trainings and technical implementation support delivered to Indigenous Peoples and local communities promoting biodiversity-positive farming and forest habitat conservation on community lands.</p>	<p>The Output heading changed to include the word 'sensitive' to reflect the importance of cultural sensitivity in working with Indigenous Peoples and the implementation of its activities. Furthermore, this activity added 'technical implementation support' in addition to 'trainings' that will be provided to Indigenous Peoples and local communities. On the ground technical support to farmers supporting implementation of sustainable production practices was necessary, in addition to trainings, to help strengthen and ensure the effectiveness of the proper implementation of these practices for biodiversity-positive farming and forest habitat conservation on community lands.</p>
<p>Output 2.2.2 Strengthened market linkages through action-learning processes between small-scale farmers (specifically targeting women, youth, Indigenous Peoples, and local communities) and local and regional markets, to support conservation through biodiversity-friendly production practices.</p>	<p>Output 2.2.2 Strengthened value-added production, business planning and market linkages through action-learning processes between small-scale farmers (specifically targeting women, youth, Indigenous Peoples, and local communities) to support conservation through biodiversity-friendly production practices.</p>	<p>The output also expanded to reflect the value-added production and business planning that will be supported, in addition to market linkages. This will include trainings, production support, development of business plans, and other activities outlined in the Output narrative.</p>
<p>Component 3: Knowledge Sharing and Project M&E</p>		

Output 3.1.1: Multi-stakeholder (including private sector and Indigenous peoples) roundtables to exchange and recover knowledge about sustainable traditional practices in food systems.	Output 3.1.1: Experiences, best practices, and lessons learned captured, exchanged, and made available through multi-stakeholder forums and various platforms to support use in forest reserves and production lands in the MGL and in landscapes elsewhere in Belize	This output title expanded to reflect the broader nature of these outputs activities and modes of knowledge gathering and exchange. In addition to roundtables, this output will incorporate multi-stakeholder forums, community presentations, and discussion groups. Peer to peer learning among model farmers, a farmer's exchange program with farmers from northern and western Belize with MGL farmers, as well as videos, social media, multimedia, radio, written and other forms of information exchange will be implemented.
Output 3.1.2: Cocoa agroforest research partnership established with Maya Mountain Cocoa Company	Output 3.1.2: Project knowledge and lessons learned are systematized and monitored to support Project adaptive management.	During the PPG process, it was determined that the MMC Company will not be carrying out the research for this Project as was originally indicated during the PIF development. Hence this output has been removed and replaced with an output that describes the systemization and monitoring of Project outputs and lessons learned during Project implementation to support adaptive management.
Output 3.2.1: Delivery terminal evaluation	Output 3.2.1: Project monitoring and evaluation strategy carried out.	The output changed to reflect a clearer definition of the expected outcome that is expanded to include the broader scope of the implementation of the Project's M&E strategy.
Output 3.2.2: Monitoring system of the global environmental benefits, co-benefits, and costs of biodiversity positive production practices.	This output was combined with Output 3.2.1	This output was combined with the new more comprehensive Output 3.2.1 that addresses broader Project monitoring and evaluation.

[1] Statistical Institute of Belize (Belize Postcensal National Population Estimates, 2000 to 2019)

- [2] National Protected Area System Plan Secretarial (NPASP). 2015.
- [3] Belize National Sustainable Development Report. Ministry of Forestry, Fisheries, and Sustainable Development, Belize United Nations Department of Social and Economic Affairs (UNDESA), United Nations Development Program (UNDP). Available at: <https://sustainabledevelopment.un.org/content/documents/1012belize.pdf>. Accessed February 2019.
- [4] CEPF Ecosystem Profile Northern Region of the Mesoamerica Biodiversity Hotspot (Belize, Guatemala, Mexico) 2004. Conservation International, Mexico and Central American Program
- [5] Voight, C., Hernandez-Aguilar, K., Garcia, C. and Gutierrez, S., 2019. Predictive Modeling of Future Forest Cover Change Patterns in Southern Belize. *Remote Sensing*, 11(7), p.823.
- [6] Belize Environmental Outlook. 2010. Land and Surveys Department, Ministry of Natural Resources and the Environment, Government of Belize.
- [7] Belize 6th National Report to the Convention on Biological Diversity. May 2019.
- [8] National Biodiversity Strategy and Action Plan, Belize. 2016. Ministry of Agriculture, Forestry, Fisheries, the Environment and Sustainable Development, Belmopan, Belize.
- [9] Maya Mountains and Southern Reserves KBA
- [10] <https://www.keybiodiversityareas.org/site/factsheet/20761>. Key Biodiversity Areas Partnership (2022) *Key Biodiversity Areas factsheet: Maya Mountains and southern reserves*. Extracted from the World Database of Key Biodiversity Areas. Developed by the Key Biodiversity Areas Partnership: BirdLife International, IUCN, American Bird Conservancy, Amphibian Survival Alliance, Conservation International, Critical Ecosystem Partnership Fund, Global Environment Facility, Global Wildlife Conservation, NatureServe, Rainforest Trust, Royal Society for the Protection of Birds, World Wildlife Fund and Wildlife Conservation Society. Downloaded from <http://www.keybiodiversityareas.org/> on 15/04/2022.
- [11] Belize 6th National Report to the Convention on Biological Diversity. May 2019.
- [12] Frutos, Ramon. 2003. Progress and Constraints in Developing Integrated Water Resources Management in Belize. Hydromet - Hydrological Report, Hydrology Unit, National Meteorological Service of Belize. 5 pages.
- [13] <https://yaaxche.org/about-us/our-work>
- [14] Voight et al. 2019.
- [15] IUCN 2022. The IUCN Red List of Threatened Species. Version 2022-1. <https://www.iucnredlist.org> ISSN 2307-8235
- [16] Forest Reserve, National Park, Wildlife Sanctuary, Nature Reserve, Private Reserve; Private Reserve.

- [17] World Bank; International Finance Corporation; Multilateral Investment Guarantee Agency. 2017. Country Partnership Framework for Belize for the Period FY18-22. World Bank, Washington, DC. ? World Bank. <https://openknowledge.worldbank.org/handle/10986/27145> License: CC BY 3.0 IGO
- [18] Belize National Sustainable Development Report
- [19] World Bank Systematic Country Diagnostic (various sources), 2016.
- [20] World Bank; International Finance Corporation; Multilateral Investment Guarantee Agency. 2017.
- [21] NBSAP 2016
- [22] World Travel and Tourism Council. Economic Impact ? Belize Country Report, 2018. Available at <https://www.wttc.org/economic-impact/country-analysis/country-reports/>.
- [23] World Bank; International Finance Corporation; Multilateral Investment Guarantee Agency. 2017.
- [24] Source: YCT 2019
- [25] Statistical Institute of Belize. 2018/2019 Poverty Study. Accessed 17 April 2022. <https://amandala.com.bz/news>
- [26] Statistical Institute of Belize. 2018/2019.
- [27] National Forest Policy-Belize. 2015.
- [28] Ibid.
- [28] Statistical Institute of Belize. 2018/2019 Poverty Study. Accessed 17 April 2022. <https://amandala.com.bz/news>
- [28] Statistical Institute of Belize. 2018/2019.
- [28] National Forest Policy-Belize. 2015.
- [28] Ibid.
- [29] Baines 2012
- [30] Castillo 2014
- [31] Statistical Institute of Belize, Population and Housing Census 2010[31].

- [32] Halcrow, 2010. 2009 Country Poverty Assessment: Volume 1. National Human Development Advisory Committee, Ministry of Economic Dev, Commerce, Industry and Consumer Protection. Belmopan City. 306 p.
- [33] Ibid.
- [34] National Forest Policy-Belize (2015). Government of Belize.
- [35] Drexler, K.. 2020. Government extension, agroecology, and sustainable food systems in Belize milpa farming communities: A socio-ecological systems approach. *Journal of Agriculture, Food Systems, and Community Development*, 2020. **9**(3): p. 85-97.
<https://doi.org/10.5304/jafscd.2020.093.001>
- [36] Including: American Restart (*Setophaga ruticilla*), Wood Thrush (*Hylocichla mustelina*), Magnolia Warbler (*Setophaga magnolia*), Common Yellowthroat (*Geothlypis trichas*). See Annex
- [37] Levasseur, V., Olivier, A. 2000 The farming system, and traditional agroforestry systems in the Maya community of San Jose, Belize. *Agroforestry Systems* **49**, 275-288 (2000).
<https://doi.org/10.1023/A:1006327403980>
- [38] Shal, V. (2002). The Mayas and their land (Report No. 489). Belize Development Trust. Retrieved from <https://ambergriscaye.com/BzLibrary/trust489.html>
- [39] (De Frece & Poole, 2008; Levasseur & Olivier, 2000; Lozada, 2014; New Agriculturist, 2005; Shal, 2002; Steinberg, 1998).
- [40] Drexler, K. 2020
- [41] Ya?ache Conservation Trust. 2019. Golden Stream Corridor Preserve Management Plan 2020-2025.
- [42] YCT 2019. Land Use/Land Cover Change in the Maya Golden Landscape, Belize 2014-2019.
- [43] All sustainable production supported by YCT, and the Project is organic. This include all agroforestry whose cacao beans that are sold to Maya Mountain Cacao, whose plots are certified organic (international certification).
- [44] Baines 2012
- [45] Ya?ache Conservation Trust. 2022.
- [46] YCT 2022. Mission follow-up notes.
- [47] Ibid.
- [48] YCT 2022. Biodiversity Monitoring in Agroforestry Farms of the MGL: 2020-2021 Camera Trap Survey Report.

[49] Unless otherwise noted, text and maps adapted from: YCT 2020. State of the Protected Areas Report 2020. An assessment of Bladen Nature Reserve, Golden Stream Corridor Preserve and Maya Mountain North Forest Reserve and YCT 2017. Bladen Nature Reserve Management Plan 2017 ? 2021.

[50] Meerman & Sabido 2004

[51] Brewer 2014

[52] Unless otherwise noted, text and maps adapted from: YCT 2020. State of the Protected Areas Report 2020. An assessment of Bladen Nature Reserve, Golden Stream Corridor Preserve and Maya Mountain North Forest Reserve and YCT 2020. Golden Stream Corridor Preserve Management Plan 2020-2025

[53] Unless otherwise noted, text adapted from: YCT 2020. State of the Protected Areas Report 2020. An assessment of Bladen Nature Reserve, Golden Stream Corridor Preserve and Maya Mountain North Forest Reserve *and* YCT 2017. An abridged management plan: Maya Mountain North Forest Reserve 2020-2021.

[54] NBSAP 2016

[55] Ibid.

[56] Cherrington, E.A., P.P. Cho, I. Waight, T.Y.Santos, A.E. Escalante, J. Nabet and L. Usher. 2012. Forest Cover and Deforestation in Belize, 2010-2012 in Forest Resource Assessment 2020 Report, Belize. FAO Rome, Italy. <https://www.fao.org/3/ca9975en/ca9975en.pdf> Accessed 20 May 2022.

[57] Cherrington et al, 2012.

[58] Cherrington, E.A., B.E. Hernandez, N.A. Trejos, O.A. Smith, E.R. Anderson, A.I. Flores, and B.C. Garcia, 2010. Technical Report: Identification of Threatened and Resilient Mangroves in The Belize Barrier Reef System. Water Center for The Humid Tropics of Latin America and The Caribbean (Cathalac).

[59] Voight 2019.

[60] Annex x: Climate risk Screening Report.

[61] ECLAC (2013). Belize: effects of climate change in agriculture. Data access on 15/04/2021. Available at: https://www.cepal.org/sites/default/files/publication/files/26108/M20130001_en.pdf

[62] Ibid.

- [63] UNEP 2012. National Environmental Summary: Belize. UNEP/ROLAC (Regional Office for Latin America and the Caribbean).
- [64] Belize Environmental Technologies, 2010. Fourth National Reports to the Convention on Biological Diversity (CBD), Forest Department, Ministry of Natural Resources and the Environment, Government of Belize- UNDP. May 2010.
- [65] Cherrington et al, 2012.
- [66] Chicas, S.D., K. Omine, J. Ford, K. Sugimura, K. Yoshida. 2017. Using spatial metrics and surveys for the assessment of trans-boundary deforestation in protected areas of the Maya Mountain Massif: Belize-Guatemala border. February 2017. *Journal of Environmental Management* 187. DOI: [10.1016/j.jenvman.2016.11.063](https://doi.org/10.1016/j.jenvman.2016.11.063) www.researchgate.net/publication/311343639
- [67] Voight 2019
- [68] YCT 2019. Land Use/Land Cover Change in the Maya Golden Landscape, Belize 2014-2019.
- [69] Ibid.
- [70] Belize's Updated Nationally Determined Contribution. 2021.
- [71] National Forest Policy-Belize. 2015. Government of Belize. Policy Statement 5.
- [72] <https://www.agriculture.gov.bz/sustainable-agriculture/> Accessed 27 April 2022.
- [73] NBSAP Prioritization Exercise, 2017
- [74] National Protected Area System Plan Secretarial (NPASP). 2015. Government of Belize.
- [75] Ibid.
- [76] Belize National Protected Area System Act, 2015. <https://www.nationalassembly.gov.bz/wp-content/uploads/2016/09/Act-No.-17-of-2015-National-Protected-Areas-System-Act-2015.pdf> Accessed 27 April 2022.
- [77] National Protected Areas System Act. 2015. Government of Belize. <https://www.nationalassembly.gov.bz/wp-content/uploads/2016/09/Act-No.-17-of-2015-National-Protected-Areas-System-Act-2015.pdf>. Accessed 25 April 2022.
- [78] International Monetary Fund. 2018. Belize Climate Change Policy Assessment. Washington, D.C. <https://www.imf.org/en/Publications/CR/Issues/2018/11/16/Belize-Climate-Change-Policy-Assessment-46372> Accessed 26 April 2022.
- [79] Belize 6th National Report to the Convention on Biological Diversity. 2019.
- [80] Ibid.
- [81] <https://apamobelize.org/>. Accessed 27 April 2022.

- [82] GEF-3 Integrating Protected Area and Landscape Management in the Golden Stream Watershed, Belize. UNDP/GEF. <https://www.thegef.org/projects-operations/projects/2068> Accessed 4 June 2022.
- [83] Convention on Biological Diversity. Belize Progress Assessment Report. 2019. <https://chm.cbd.int/database/record?documentID=246179>. Accessed 24 April 2022.
- [84] Green Climate Fund. Resilient Rural Belize (Be-Resilient) project: Funding Proposal. 2019. <https://www.greenclimate.fund/sites/default/files/document/funding-proposal-fp101-ifad-belize.pdf> Accessed 24 April 2022.
- [85] Ya?axch? Conservation Trust. 2020. <https://www.yaaxche.org/2020/02/18/farmers-growing-cacao-in-a-forest-reserve/> Accessed 16 April 2022.
- [86] All farming supported is organic and cacao agroforestry in the MMNFR uses native species.
- [87] YCT 2022. Pers. Comm.
- [88] Voight 2019
- [89] Vulnerability to encroachment and forest loss. See vulnerability map, Figure 7, map (a)
- [90] Voight 2019.
- [91] Ibid.
- [92] This 2020-2021 management plan was developed in collaboration between YCT and Colorado State University and received formal FD approval.
- [93] Beaton, M. 2019. Belize?s first agroforestry concession for conservation and livelihoods. A Case Study Report. https://yaaxche.org/wp-content/uploads/2019/07/mmnfr_agroforestry_concession_case_study_yaaxche.pdf
- [94] Ibid.
- [95] Identified during project preparation consultations with GRMU. 26 May 2022.
- [96] <https://www.iucn.org/resources/conservation-tools/iucn-red-list-threatened-species>
- [97] See Baseline initiatives, Para 51.
- [98] <https://www.iucnredlist.org/species/41778/44051115>
- [99] For example, Geoffrey?s spider monkey (*Ateles geoffroyi*), Yucat?n Black Howler Monkey *Alouatta pigra*, Baird?s tapir (*Tapirus bairdii*), white-lipped peccary (*Tayassu pecari*), yellow-headed parrot (*Amazona oratrix*).
- [100] Voight 2019

[101] 10 communities work with YCT to implement sustainable agricultural practices, communities which the Project will support. See Table 2.

[102] YCT 2022. Mission follow-up notes.

[103] Harvey, C.A., Gonz?lez Villalobos, J.A. Agroforestry systems conserve species-rich but modified assemblages of tropical birds and bats. *Biodivers Conserv* **16**, 2257-2292 (2007). <https://doi.org/10.1007/s10531-007-9194-2>

[104] Jose, S. Agroforestry for conserving and enhancing biodiversity. *Agroforest Syst* **85**, 178 (2012).

[105] Jose, S. Environmental Impacts and Benefits of Agroforestry. Oxford Research Encyclopedia of Environmental Science. Retrieved 16 Jun. 2022, from <https://oxfordre.com/environmentalscience/view/10.1093/acrefore/9780199389414.001.0001/acrefore-9780199389414-e-195>.

[106] Ibid.

[107] Potential opportunities for future or complimentary projects could be explored through the toolkit Belize has developed for the Green Climate Fund in order to maximize financing opportunities for executing climate change adaptation and mitigation projects.

[108] Beaton, M. 2019. Belize's first agroforestry concession for conservation and livelihoods. A Case Study Report. https://yaaxche.org/wp-content/uploads/2019/07/mmnfr_agroforestry_concession_case_study_yaaxche.pdf

[109] This above reference management plan was not detailed extensive management plan for the entire MMNFR, as will be developed by this project.

[110] Ibid.

[111] As recommended in Climate Screening Report., Annex O, YCT's work in the MGL will continue to expand (through the support of this project) on building resilience to food systems in the face of changing climactic conditions. Training and capacity building in sustainable agricultural practices, agroecological systems, and climate-smart agriculture, the use and benefits of climate information including hazards, is incorporated into training modules and programmes of YCT, and will be expanded upon as recommended in the Climate Screening Report.

[112] Jos? Rub?n S?nchez Curiel & Ya'axch? Conservation Trust. 2019. AGROECOLOGICAL MEASURES FOR THE MAYA GOLDEN LANDSCAPE A farmer's field guide for coffee, cacao and pest management and seed conservation. YCT and El Instituto de Investigaciones Fundamentales en Agricultura Tropical Alejandro de Humboldt (INIFAT), Cuba. https://yaaxche.org/wp-content/uploads/2022/05/Agroecological-Manual_2021_small-file-1.pdf

[113] As recommended in Climate Screening Report., Annex O. 45. As recommended in the Climate Risk Screening Summary, YCT's work in the MGL will continue to expand (through the support of

this project) on building resilience to food systems in the face of changing climactic conditions. Training and capacity building in sustainable agricultural practices, agroecological systems, and climate-smart agriculture, the use and benefits of climate information including hazards, is incorporated into training modules and programmes of YCT, and will be expanded upon as recommended in the Climate Screening Report.

[114] Expected course duration is 1 month.

[115] FAO 2016. Capacity Development Support to Rural Women on the Socio-economic and Gender Aspects of Sustainable Rural Development. FAO Subregional Office for Central Asia (SEC). Turkey and Azerbaijan GCP/SEC/007/TUR. <https://www.fao.org/publications/card/en/c/cb37021c-0aa5-4807-a190-b3f71de5cce6/> Accessed 13 June 2022.

[116] YCT personal communication

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

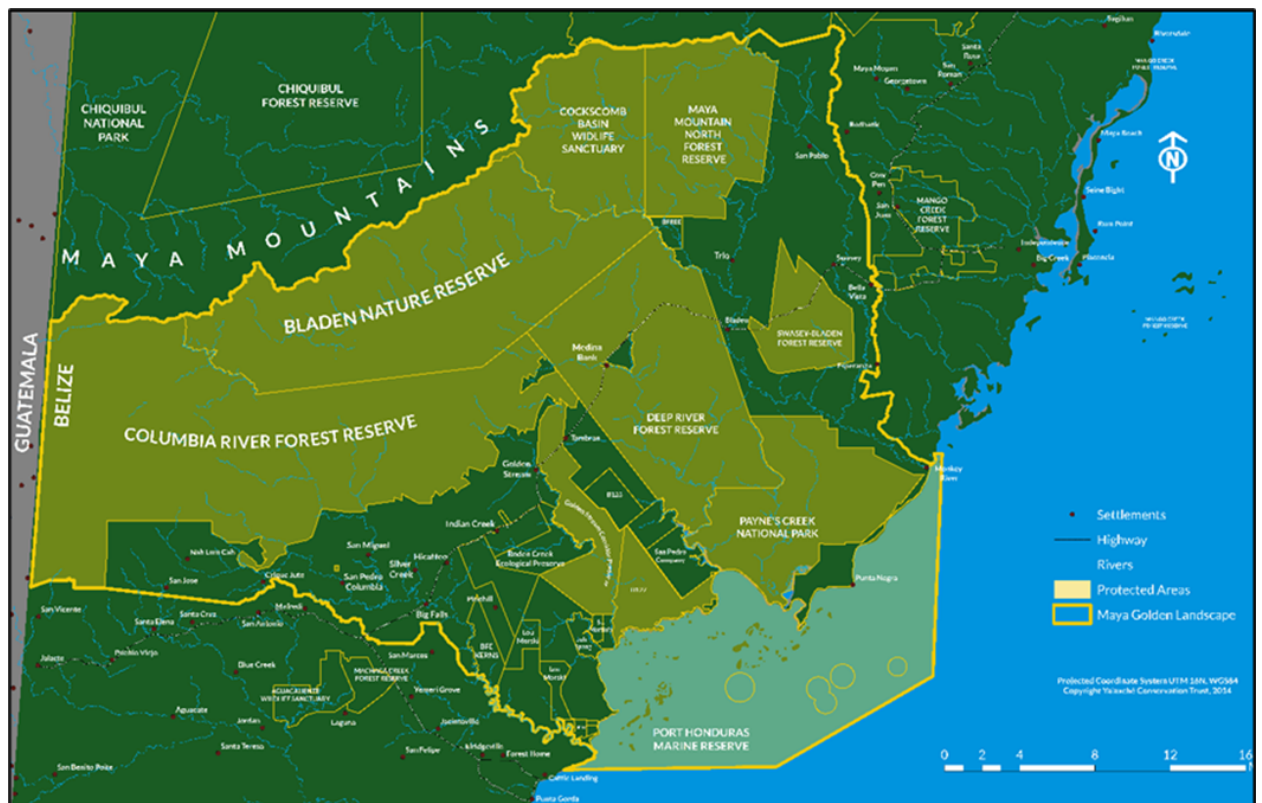


Figure 12. Detailed Map of Protected Areas and Community Zones ? Maya Golden Landscape.
Source: Ya?axch? Conservation Trust, 2019

The Project will intervene in the 311,610 ha Maya Golden Landscape (MGL) that covers approximately 67% of southern Belize?s Toledo district (Figure 12). The center (approximate) of the MGL has the following coordinates: 16?12'56.62"N, 88?54'27.74"W.

3 Priority Intervention Areas in PAs	Projected Coordinates (approx.)
Maya Mountain North Forest Reserve	16?32'29.8"N 88?38'50.6"W
Golden Stream Corridor Preserve	16?18'03.2"N 88?49'04.9"W
Bladen Nature Reserve	16?29'07.5"N 88?36'12.3"W

10 Communities for Project Intervention in Community Zone	
Big Falls/ Hicattee	16?16'14.8"N 88?53'03.1"W
Bladen	16?28'25.5"N 88?37'52.5"W
Golden Stream/ Tambran	16?20'50.2"N 88?47'26.0"W
Indian Creek	16?19'07.0"N 88?48'56.3"W
Medina Bank	16?26'38.8"N 88?43'43.5"W
San Jose	16?16'03.1"N 89?06'08.3"W
San Miguel	16?17'30.9"N 88?56'29.8"W
Silver Creek	16?16'48.7"N 88?53'30.2"W
Trio	16?31'11.4"N 88?38'12.3"W
Aguacate	15?52'20.7"N 89?05'35.6"W

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

1) Stakeholder Consultation in project formulation

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Consultation Findings	Date	Comments
Individual Farmers	Direct beneficiary	<i>Local community</i>	<i>Meetings, one-on-one visits, forums</i>			
Bladen Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>January 19, 2023</i>	
Big Falls Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>March 16, 2023</i>	
Silver Creek Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>March 4, 2023</i>	
San Miguel Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>March 2, 2023</i>	
Medina Bank	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>February 2, 2023</i>	
Golden Stream Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>February 4, 2023</i>	
Indian Creek Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>February 16, 2023</i>	

San Jose Village			Community meetings	Community members, village council and members of GCFC brainstormed project ideas which include rehabilitating old cacao farms, establishing riparian zone, demarcating waterfall and archaeological sites, entrepreneurship ventures for women and youth, ecotourism for GCFC, book grants for students and a resource center.	February 29, 2021 February 18, 2023 (Part of FPIC)	Brainstorming session led by Ya?axche
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Trio Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<p><i>Trio Village council members and villagers (particularly of de-reserved area adjacent to MMNFR) expressed interest in adopting cacao-based agroforestry systems. Farmers stated they planted plantains and pineapples but has yielded very little in return economically and it has very high maintenance. These farmers have observed fellow villagers working in the concession and see how production has increased. Approximately 10 farmers expressed interest in conducting an assessment of their current farms to possible convert to agroforestry systems.</i></p>	<p><i>August 24, 2022</i></p> <p><i>January 21, 2023 (Part of FPIC)</i></p>	<i>Meeting led by Ya?axche COL Team</i>
Aguacate Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Part of FPIC</i>	<i>March 18, 2023</i>	
Trio Farmers Cacao Growers Ltd.	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Annual General Meeting with TFCGL to report on achievement of groups. Also, election of executive committee.</i>	<i>August 27, 2022</i>	

Aguate Conservation and Development Committee	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Brainstorming of needs of group and potential capacity building.</i>	<i>August 24, 2022</i>	
Green Creek Farmers? Cooperative	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Community members, village council and members of GCFC brainstormed project ideas which include rehabilitating old cacao farms, establishing riparian zone, demarcating waterfall and archaeological sites, entrepreneurship ventures for women and youth, ecotourism for GCFC, book grants for students and a resource center.</i>	<i>February 29, 2021</i>	
Indian Creek Mayan Arts Women's Group (ICMAWG)	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Completion of business plan and identification of future capacity building (customer service and catering, product development, potential seed funding)</i>	<i>February, 2021</i>	
Maya Rose Women's Group	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Reviewed business plan and identified additional capacity building for group (inventory of product, pricing of product and documentation of revenue).</i>	<i>September 14, 2022</i>	

Village Councils	Direct beneficiary	<i>Local Community</i>	<i>Meetings</i>	<i>Presented project to village leaders and provided an opportunity for feedback.</i>	<i>May 23, 2022</i>	
Village Alcaldes	Direct beneficiary	<i>Local Community</i>	<i>Meetings</i>	<i>Presented project to village leaders and provided an opportunity for feedback</i>	<i>May 23, 2022</i>	
Ya?axche Conservation Trust	Partner	<i>non-governmental organizations</i>	Meetings, workshops, forums		<i>Ongoing</i>	
Forest Department	Partner	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Presented project and garner support. Discussed land use monitoring and technology</i>	<i>May 26, 2022</i>	
Agriculture Department	Direct Beneficiary	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Presented project and garner support.</i>	<i>May 26, 2022</i>	
Ministry of Agriculture	Other	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Presented project to Ministry of Agriculture</i>	<i>February 2021</i>	
Ministry of Sustainable Development Climate Change and Disaster Risk Management	Partner	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Presented project idea, discussed involvement of Ministry and garner support. Continuous update provided to Ministry. A letter of support was provided as GEF Focal Point.</i>	<i>July 2020 February 2021 Ongoing - 2022</i>	
Food and Agriculture Organization (FAO)	Partner	<i>resource partner/donor</i>	Meetings, workshops, forums	<i>FAO Representative in Belize has been updated on the project.</i>	<i>2020 and ongoing</i>	

FFI	Partner	<i>resource partner/donor</i>	Meetings upon request	<i>Boden Creek Ecological Preserve.</i>	<i>December 2021 March 2022</i>	
National Biodiversity Office	Indirect Beneficiary	<i>national government institution and body</i>	Meetings upon request	<i>Presented project and garner support. Requested co-finance support.</i>	<i>May 27, 2022</i>	
Maya Mountain Cacao	Indirect Beneficiary	<i>Other</i>	Meetings upon request	<i>Discussed farmers production, price and future market projections.</i>	<i>May 22, 2022</i>	

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Stakeholder Consultation foreseen in project Implementation

Stakeholder Name	Stakeholder Type	Stakeholder profile	Consultation Methodology	Expected timing	Comments
Individual Farmers	Direct beneficiary	<i>Local community</i>	<i>Meetings, one-on-one visits, forums</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>

Bladen Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Big Falls Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Silver Creek Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>

San Miguel Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Medina Bank	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Golden Stream Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2</i>	<i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>

Indian Creek Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
San Jose Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Trio Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.1</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 2.2.2</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>

Aguacate Village	Direct beneficiary	<i>Local Community</i>	<i>Community meetings</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Trio Farmers Cacao Growers Ltd.	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Year 1, 2, 3, 4</i>	<i>Output 2.1.1</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 2.2.2</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Aguacate Conservation and Development Committee	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Year 2, 3, 4</i>	<i>Output 2.1.2 & 2.2.1</i> <i>Output 2.2.2</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Green Creek Farmers? Cooperative	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>	<i>Year 2, 3, 4</i>	<i>Output 2.1.2 & 2.2.1</i> <i>Output 2.2.2</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>

Indian Creek Mayan Arts Women's Group (ICMAWG)	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>		<i>Output 2.2.2 Output 3.1.1 & 3.1.2 Output 3.2.1</i>
Marigold Women's Cooperative Society Ltd	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>		<i>Output 2.2.2 Output 3.1.1 & 3.1.2 Output 3.2.1</i>
Ancient Maya Women's Group	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>		<i>Output 2.2.2 Output 3.1.1 & 3.1.2 Output 3.2.1</i>
Maya Rose Women's Group	Direct beneficiary	<i>Local Community</i>	<i>Meetings, trainings, workshops, forums</i>		<i>Output 2.2.2 Output 3.1.1 & 3.1.2 Output 3.2.1</i>
Village Councils	Direct beneficiary	<i>Local Community</i>	<i>Meetings</i>	<i>Year 1, 2, 3</i>	<i>All Outputs</i>
Village Alcaldes	Direct beneficiary	<i>Local Community</i>	<i>Meetings</i>	<i>Year 1, 2, 3</i>	<i>All Outputs</i>
Ya'axche Conservation Trust	Partner	<i>non-governmental organizations</i>	<i>Meetings, workshops, forums</i>	<i>Year 1, 2, 3, 4</i>	<i>All Outputs</i>

Forest Department	Partner	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Agriculture Department	Direct Beneficiary	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Ministry of Agriculture	Other	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 2.1.2 & 2.2.1</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>

Ministry of Sustainable Development Climate Change and Disaster Risk Management	Partner	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Land's Department	Other	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Ministry of Rural Transformation	Other	<i>national government institution and body</i>	Meetings, workshops, forums	<i>Year 1, 2</i>	<i>Output 1.1.2</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Food and Agriculture Organization (FAO)	Partner	<i>resource partner/donor</i>	Meetings, workshops, forums		<i>All Outputs</i>
FFI	Partner	<i>resource partner/donor</i>	Meetings upon request		<i>As needed</i>

Ministry of Indigenous Affairs	Other	<i>national government institution and body</i>	Meetings upon request	<i>Year 1, 2, 3</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Commissioner of Indigenous Affairs	Other	<i>national government institution and body</i>	Meetings upon request	<i>Year 1, 2, 3</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
National Biodiversity Office	Indirect Beneficiary	<i>national government institution and body</i>	Meetings upon request	<i>Year 1, 2, 3, 4</i>	<i>Output 1.1.1</i> <i>Output 1.1.2</i> <i>Output 1.1.3</i> <i>Output 1.2.1</i> <i>Output 1.2.2</i> <i>Output 1.2.3</i> <i>Output 3.1.1 & 3.1.2</i> <i>Output 3.2.1</i>
Maya Mountain Cacao	Indirect Beneficiary	<i>Other</i>	Meetings upon request	<i>Year 2, 3, 4</i>	<i>Output 2.2.2</i> <i>Output 3.2.1</i>

Maya Leaders Alliance	Other	<i>civil society organization</i>	Meetings upon request		<i>As needed</i>
Toledo Alcalde Association	Other	<i>civil society organization</i>	Meetings upon request		<i>As needed</i>
Julian Cho Society	Other	<i>civil society organization</i>	Meetings upon request		<i>As needed</i>
Toledo Maya Women's Council	Other	<i>civil society organization</i>	Meetings upon request		<i>As needed</i>
Belize Tourism Board	Other	<i>national government institution and body</i>	Meetings upon request		<i>As needed</i>
Belize Tourism Industry Association	Other	<i>other</i>	Meetings upon request		<i>As needed</i>
Toledo Cacao Growers Association	Indirect Beneficiary	<i>other</i>	Meetings upon request		<i>As needed</i>
Banana Companies	other	<i>other</i>	Meetings upon request		<i>As needed</i>
The Belize Trade and Investment Development Service (BELTRAIDE)	Other	<i>national government institution and body</i>	Meetings upon request	<i>Year 2, 3, 4</i>	<i>Output 2.2.2</i>
Belize Chamber of Commerce	Other	<i>other</i>	Meetings upon request		<i>As needed</i>

[1] Please include identification and consultations of disadvantage and vulnerable groups/individuals in line with the [GEF policy on Stakeholder Engagement](#) and [GEF Environmental and Social Safeguard](#).

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier; Yes

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

The below Gender Analysis utilizes gender disaggregated data, examining the roles and resources of both women and men. Actions developed are to ensure women's increased access to decision making, equal access to project information and resources, equal participation throughout all stages of the project; and equal opportunities to benefit from the project.

Table 4. Communities of the Maya Golden Landscape

No.	Communities	Males	Females	Total	Households
1	Big Falls Village	412	433	845	169
2	Bladen Village	247	219	466	110
3	Golden Stream Village	349	363	712	117
4	Indian Creek Village	377	344	721	134
5	Medina Bank Village	109	128	237	34
6	San Jose Village	403	446	849	175
7	San Miguel Village	267	270	537	96
8	Silver Creek Village	245	231	476	83
9	Trio Village	481	418	899	188
10	Aguacate Village	N/A	N/A	369	59
Total		2890	2852	6111	1165

Gender Analysis:

Table 4 provides primary information on the communities as it relates to practices, access to resources, knowledge, legal status, power and impact of project. In the communities of the project's area of intervention, women would typically generate income through harvesting and sale of agricultural produce, home-made food spices and seasonings and small stock animals like chicken and ducks. Women operate and own corn mills, small stores, vegetable stands and conduct small-scale sewing. Men would be engaged mostly in subsistence farming and sale of produce, cattle ranching, cacao farms, logging, hunting, carpentry, ecotourism tour, among others. There are members of the community who have permanent employment as public servants in various ministries and departments. Women would typically spend 70% of their time working on domestic task while men would spend less than 5% in domestic chores. Work in the household is done every day with one day as sabbath. While women participate in collecting food material (such as jippi jappa, mushroom, arrow root, cacao, corn, beans, etc.) from farms and within the community zones/lands, it is the male who would typically access natural resources in protected areas and community lands. In the case of the registered farmer groups, it is the men that administer the groups' affairs. In women's group, it is the women who administer the affairs of the group.

In the communal land system, typically men 'hold the rights' to the land and also, own title to lands for private property. Access to credit is limited among women except for those who have permanent employment for example in the public service. In community, men are seen as leaders and would typically have the ability/power make the decisions, especially in community meetings, and often at times with minimal consultation with the household or spouses. At household level, typically, males would make decisions but there are very few cases that females would make the decision.

Table 5. Primary information on women and men of the ten communities of the MGL (adapted from Conservation International, 2019).

Purpose	Women	Men
Practices and participation : peoples? behaviors and actions in life and how they vary by gender and social group	<p>Main sources of livelihoods and income for women:</p> <ul style="list-style-type: none"> Subsistence farming/climate-smart agriculture Crafts Food-based products and services (spices, recado, yellow ginger, black pepper, pumpkin seed) Tours (Cultural experience, cooking, dancing, craftmaking) Vegetable vendors Sale of chicken, pigs Sewing/seamstress Small shops Cornmill/corn tortilla and masa for sale Mid wives Outside employment: Nurses, tourism related, health workers, teachers/public service) Homestay program (ACDC). Indian Creek has interest to do similar home stay experience. <p>Women work: ? 7 out of 7 days per week</p> <p>How much time is spent on domestic and care work tasks? Who's primary responsibility it is? 70% spent working on domestic task Generally, responsibilities fall on the mother/wife, daughters, and other female in the household</p>	<p>Main sources of livelihoods and income for men:</p> <ul style="list-style-type: none"> Subsistence farming/climate-smart agriculture cacao agroforestry beekeeping cattle ranching Ecotourism on farm Logging Hunting Sale of farm produce Traditional healers Carpenters Alcalde (trad leaders) Outside employment: Tourism, banana/citrus farms, construction, security forces, NGOs, bartenders, waiters, maintenance workers, public service- males) <p>Men work: ? 7 out of 7 days per week</p> <p>How much time is spent on domestic and care work tasks? Who's primary responsibility it is? Less than 5% spent working on domestic task by men Generally, responsibility fall on the male children</p>

<p>Access to, and control of, resources: one's ability to use financial and other resources or assets.</p>	<p>Natural resources women have access to and use:</p> <p>Protected areas has system of extracting NTFP. In the instance of MMNFR, women maintain and harvest honey and other by-products. However, it is not typical for women to harvest NTFP in PA.</p> <p>Agroforestry concession: women and family members would harvest of cacao and waha leaves. Women participate in collecting food material (jippi jappa, mushroom, arrow root, etc) not in PA but in forest within Community Zones/Lands.</p> <p>San Jose Indigenous Community Conservation Area (ICCA)- women participate in planting and harvesting of products (garden of pepper field, vegetables, etc). Males would do the sales while women do the planting/harvesting.</p> <p>For individual farm in Community Zones/Lands: Harvesting of farm produce (corn, beans, vegetables, cocoa) is done by women.</p> <p>Organized/registered Groups (TFCA, ACDC, GCFC: In the case of GCFC, the women are more active in comparison to TFCA, the women are more reserved.</p> <p>Women's Groups (IC, Marigold, Ancient, Maya Rose): laptop, stove, chairs, cooking utensils for the business. Food resources for tours use family land/individual farms. Some food resources are bought at the store as well. Would go in communal land areas to collect jippa, leaves, etc. Currently, this group do not go into GSCP to get NTFP. Women control the resources as it relates to the women's group.</p> <p>Other resources (land, credit, information, training, etc) are available for women? Who uses these resources?</p> <p>Land ? women would typically use the land but do not necessarily own the land. In the communal land system, typically men ?hold the rights?.</p> <p>Credit ? women who have permanent jobs would access credit. However, women who would typically work in the household would not have access to credit or own a bank account.</p> <p>For women's group, they manage their own financial affairs. The group doesn't</p>	<p>Natural resources men have access to and use:</p> <p>Protected areas: Men would typically go into the Sustainable Extraction Zone of GSCCP and concession in MMNFR. Men would request permission to extract NTFP.</p> <p>Agroforestry concession: men would lead the planting, maintenance and management of plots. Men would do hunting as well.</p> <p>For individual farms within Community Zones/Lands, the planting, maintenance of farm, harvesting, done by men. However, in some instances, like in the Makin Family and Junajpu? (San Miguel Farm/Martin), the entire family is engaged. Men do not typically play a role in the women's group.</p> <p>For the organized and registered farmer Groups (TFCA, ACDC, GC): men would have full access to resources (equipment like pruning sheers, ATV, machetes, etc) and control it</p> <p>Community of Golden Stream has an easier access to GSCP to obtain cohune leaves. Indian Creek says it is far to get leaves. Medina Bank go into Sierra Area.</p> <p>Other resources (land, credit, information, training, etc) are available for men and women? Who uses these resources?</p> <p>Land- have access to land, title would be in men name and communal land it would be male name.</p> <p>Credit- male use land document to get credit. Those with full time job would typically go to the financial institutions.</p> <p>Information and training available to women ? open invitation is sent to beneficiaries, however depending on type of training, the individual would be invited.</p> <p>Men have access to project information:</p> <p>? Generally, the discussion would be with the male regarding information on project and training. It is expected that the male of the house should be informed first.</p>
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Knowledge, beliefs and perceptions: social norms of, and about, women, men, girls and boys

Barriers for women to attend meetings/trainings or to participate in decision making:

In most maya communities, public meetings are done and it is mostly male-dominated activity.

Communities have Fajina and is mainly male dominated. This is tied to cleaning of common grounds (cemetery) and women are not expected to do the cleaning.

For public meetings, the male would typically attend. In the case of Medina Bank, women would highly participate (sit at the front row).

Females have domestic responsibilities (prep food, children, etc) which hinders their participation.

Religion? church on Sundays or Saturdays

Husband do not encourage women to go to the meetings.

The village police would typically go to the head of the household to inform of the meeting. Although the woman is met at the household, the notice is addressed to the male/head.

Dependent on women's interest on topic of meeting.

Project provide transportation, food.

Weather may impede participation (rain, flooding, etc.)

Limited inclusion in decision making process due to minimal women in leadership.

Perception that women do not belong in leadership positions.

COVID ? restrictions on gatherings

Do women tend to voice their opinions during community decision making? Why or why not?

In some communities, women would voice their opinion (typical the vocal women)

Typically, women do not voice their opinions. However, when you go to women (one-on-one), they would be more vocal.

Language barrier (if meeting in English they may not express themselves well)

Women's self-confidence to express themselves

Do women share information they have gathered at a meeting/training with the household?

? It is more likely women will share with household than men

Do women consult others in the household before making community-level decisions?

? Women would typically make the following statement on decision making ? she would need to consult with the

Barriers for men to attend meetings/trainings or to participate in decision making:

Language barriers

Time of meeting and day (they need to go to the farm). Have meeting at more convenient times (late evening/nights/weekends).

Religion? church on Sundays or Saturdays

Farm activities ? farmers would not leave farm to go to a meeting

Meeting fatigue

Activities that are their interest (project activity versus other community activity

Weather

Do men tend to voice their opinions during community decision making? Why or why not?

? Yes. They are the head of household.

Do men share information they have gathered at a meeting/training with the household?

? Few men would share information. Share with older sons (help on the farm) or wife. Information may not be as detailed.

Do men consult others in the household before making community-level decisions?

? Male are the leaders and would typically make the decisions. Men would not typically consult with wife for decision making.

<p>Legal rights and status: how men and women are regarded and treated by the customary and formal legal codes and judicial systems.</p>	<p>What do formal codes say about men's and women's rights? Constitution of Belize The Law of Property Act (Cap.190), Section 40 The Inferior Courts Act (Cap. 94) The Village Councils Act (Cap. 88) The National Development Framework: Horizon 2030 (2010) The 2014-2024 National Environmental Policy and Strategy (2014) The National Protected Areas System Plan (2015) The National Culture Policy (2016) The National Climate Change Policy and Strategy (2014) The National Forest Policy (2015) The National Gender Policy (2012)</p> <p>Do the formal codes differ from customary codes? Alcalde role is typically male. Medina Bank had one female alcalde. Village Council ? more participation of women as part of VC</p> <p>Who can enter into legal agreements or contracts? ? Females do not typically enter into legal agreements. Once exception, Martha Cholom is a founding member of TFCA and part of executive committee.</p> <p>Who can inherit property? ? Women would inherit personal items (earings, grinding stones) to daughters.</p>	<p>What do formal codes say about men's and women's rights? Constitution of Belize The Law of Property Act (Cap.190), Section 40 The Inferior Courts Act (Cap. 94) The Village Councils Act (Cap. 88) The National Development Framework: Horizon 2030 (2010) The 2014-2024 National Environmental Policy and Strategy (2014) The National Protected Areas System Plan (2015) The National Culture Policy (2016) The National Climate Change Policy and Strategy (2014) The National Forest Policy (2015) The National Gender Policy (2012)</p> <p>Do the formal codes differ from customary codes? Alcalde role is typically male. Medina Bank had one female alcalde. Village Council ? more participation of women as part of VC</p> <p>Who can enter into legal agreements or contracts? ? Typically, male enter into legal agreements.</p> <p>Who can inherit property? ? Land would typically be given to the males. Father pass down inheritance to sons.</p>
<p>Power: the capacity to control resources and to make autonomous and independent decisions free of coercion.</p>	<p>Who has the ability/power to make decisions at the community level? Are women involved? Females do not typically make decisions at the community level. Often, women would state they need to consult their husband. At household level: Very few cases that females would make the decision.</p> <p>Who determines when land, livestock and agricultural products are sold? ? The owner of land, livestock and agricultural products would sell (mostly male). However, the small stock animals (chicken, turkey, ducks) the female would sell.</p>	<p>Who has the ability/power to make decisions at the community level? Are men involved? Males would typically have the ability/power to make decisions at the community level At household level: typically, males would make decisions. Very few cases that females would make the decision.</p> <p>Who determines when land, livestock and agricultural products are sold? The owner of land, livestock and agricultural products would sell (mostly male). However, the small stock animals (chicken, turkey</p>

<p>Impact: How might the project impact men and women of different ages and status?</p>	<p>Women: time asked of women by project to participate in certain planning and validating activities, meeting fatigue, opportunity of women to take leadership roles and/or become members of the farmer organized groups or women's groups, improved community land biodiversity and production contributing to increase access to resources, benefit from more forested environment, economic opportunities for women to enhance home-made products or local culinary/art knowledge and skills, more responsibilities for organized registered group, potential conflicts among women group due to increased demand of business, Wife of the households may participate more in project activities and leave the older women or daughters in charge of the house meanwhile they are out.</p> <p>Community benefits: increased local economy due to increased cacao production, increased wildlife and forested areas, registered/organized farmer group and women group business ventures increase tourism/visitation within communities, increased sales of food/arts from community.</p> <p>Income or earnings to directly to women of women's group. For organized farmers group or individual farmers, the women do not typically handle the finances. For women who do cooking/crafts/food products, the women would handle the finances.</p>	<p>Men: potentially spend more time on the farm and less time at home, household related duties and responsibilities given to women due to more time at farm, meeting fatigue, expand relationship with other farmers from community and other communities, more responsibilities as part of organized registered group, benefit from more forested environment, potentially conflicts with other members of community who do not support project, minimal responsibilities of men in household may shift to the girls of the house.</p> <p>Community benefits: increased local economy due to increased cacao production, increased wildlife and forested areas, registered/organized farmer group and women group business ventures increase tourism/visitation within communities, increased sales of food/arts from community,</p> <p>For organized farmers group or individual farmers, the men typically handle the finances from production.</p>
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Identifying Benefits, Risks, Barriers, and Opportunities:

The project will contribute to improving the local economy through increased productivity of land, increased cacao and honey production, improved product and service of community-based enterprises, resulting in increased tourism and business opportunities. In addition, forested areas will be maintained along with biodiversity and wildlife in community zones and nearby protected areas. These positive impacts will contribute to the community social structure as well as the organizational structure of community groups. Traditional and ecological knowledge will be captured and incorporated into project outputs via gender sensitive lens to improve access to natural resources, improve business enterprises, community development and overall wellbeing of community members.

However, due to the opportunities presented in the project, there are perceived risks and costs. For women, these include balancing duties and responsibilities and involvement in project activities. This may potentially look as socially unacceptable by some community members, affecting community support. Women who take up additional responsibilities or leadership roles may require more time from personal duties and responsibilities, potentially resulting in conflict within the household and/or

organized registered groups. Financial and economic opportunities in business may result in internal conflicts and administrative work as well. Men traditionally make decisions or are expected to make decisions, thus, excluding women from key decision-making. This can impact women's participation and may be compounded by the 'lag' of seeing results of investment and time in project.

These potential risks are derived from identified barriers which includes male typically dominating community meetings, competing priorities for women as it relates to responsibilities and participation, women and men uncomfortable speaking in public, limited access to information and limited knowledge of subject matter, religion, men not encouraging women to participate in meetings, varying interest of women on topic, inaccessibility of communities and need to travel to participate in project activities, unable to do overnight travel due to family commitment/cultural norms, weather, limited inclusion in decision making process due to minimal women in leadership, limited financial literacy, poor business management and accounting skills, and COVID restrictions on gathering (Table 5).

Despite the risks and barriers identified, the project provides opportunities for formal recognition of women's contribution to farm work and within the organized registered groups. This will create a pathway of gender sensitivity and inclusivity moving forward among community and organized groups but also for project outputs such as the protected area management plan, non-timber forest product policy guidelines and access, community diagnostic assessments, and other frameworks. To maintain and enhance community support, the project provides an opportunity for farmers and groups to collaborate in community development projects in conjunction with Ya'axche. The project will support targeted training, technical support and peer-to-peer learning, minimizing risks and barriers of social issues (Table 6).

Table 6. Identified Benefits, Risks, Barriers and Opportunities

		Indigenous Community	Farmers (individual or group)	Women group
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Women	Benefits	<p>Increased/improved local economy due to increase cacao, honey, food-based and craft products, increased tourism, etc.</p> <p>Increase forested areas in community zones and protected areas.</p> <p>Increased biodiversity and wildlife in community zones and protected areas.</p> <p>Increased visitation and tourism in communities.</p> <p>Improved trust within communities and members.</p> <p>Traditional knowledge of women captured and incorporated in project outputs (improve business enterprises, value-added, community lands diagnostic assessment, etc)</p>	<p>Increased productivity of women spouses? farm/plots.</p> <p>Increase income into the household.</p> <p>Increase forested areas in community zones and protected areas.</p> <p>Increased biodiversity and wildlife in community zones and protected areas.</p>	<p>Increased business environment for women's group.</p> <p>Potentially recruit new members.</p> <p>Improved business management structure of group.</p> <p>Increase forested areas in community zones and protected areas.</p> <p>Increased biodiversity and wildlife in community zones and protected areas.</p>
	Risks/Costs	<p>Women become overwhelmed - pushed to balance household duties and responsibilities and involvement in project activities.</p> <p>Disagreements or poor support from community members for those directly involved in project activities.</p> <p>The 'lag' of adopting sustainable agroforestry practices versus traditional slash and burn based agriculture and/or value-added product investment</p>	<p>Increased income in household may not trickle to women of household.</p> <p>Conflicts between women and men on economic gains/benefits based on project.</p>	<p>Potentially personal capital/labour investment in businesses.</p> <p>Increased demand/time and responsibilities for women in executive committee/Board of women's group.</p> <p>Internal conflict if business environment expands or more members recruited.</p>

	Barriers	<p>Communities have Fajina and is mainly male dominated. This is tied to cleaning of common grounds (cemetery) and women are not expected to do the cleaning.</p> <p>For public meetings, the male would typically attend.</p> <p>Competing priorities: Females have domestic responsibilities (prep food, children, etc) which hinders their participation.</p> <p>Female uncomfortable speaking in public.</p> <p>Limited access to technology</p> <p>Limited access to information and/or sources of information</p> <p>Limited knowledge of subject matter.</p> <p>Religion? church on Sundays or Saturdays</p> <p>Men do not encourage women to go to the meetings.</p> <p>The village police would typically go to the head of the household to inform of the meeting. Although the woman is met at the household, the notice is addressed to the male/head.</p> <p>Varying interest of women on topic of meeting.</p> <p>Project provide transportation, food.</p> <p>Weather may impede participation (rain, flooding, etc.)</p> <p>Limited inclusion in decision making process due to minimal women in leadership.</p> <p>Perception that women do not belong in leadership positions.</p> <p>COVID ? restrictions on gathering</p>	<p>For public meetings, the male would typically attend. Women may not express or be vocal.</p> <p>Competing Priorities: Farmers need to attend farm.</p> <p>The village police would typically go to the head of the household to inform of the meeting. Although the woman is met at the household, the notice is addressed to the male/head.</p> <p>Unable to do overnight travel due to family commitment/cultural norms.</p> <p>Limited access to technology</p> <p>Limited access to information and/or sources of information</p> <p>Limited knowledge of subject matter.</p> <p>Limited organizational skills.</p>	<p>Women don't have personal bank account.</p> <p>Current management and business model cannot accommodate ?growth?.</p> <p>Poor bookkeeping and accounting skills.</p> <p>Limited organizational skills.</p> <p>Limited access to technology</p> <p>Limited access to information and/or sources of information</p> <p>Limited knowledge of subject matter.</p> <p>Competing priorities: Females have domestic responsibilities (prep food, children, etc) which hinders their participation. Also, farm activities.</p> <p>Female uncomfortable speaking in public.</p> <p>Unable to do overnight travel due to family commitment/cultural norms.</p>
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	Opportunities	<p>Communities have established working relationship with Ya?axche. Enhance relationship.</p> <p>Community development projects in collaboration with Ya?axche and organized registered farmer and women group.</p>	<p>Women become members of organized farmers? group.</p> <p>Contribution of women recognized in organized farmers? group.</p> <p>Community development projects in collaboration with Ya?axche and organized registered farmer and women group.</p>	<p>Training in entrepreneurship, business management, hospitality, etc. to improve product and services offered via women?s group.</p> <p>Community development projects in collaboration with Ya?axche and organized registered farmer and women group.</p>
Men	Benefits	<p>Increased/improved local economy due to increase cacao, honey, food-based and craft products, increased tourism, etc.</p> <p>Increase forested Increase forested areas in community zones and protected areas.</p> <p>Improved collaboration among leaders and community members.</p> <p>Traditional knowledge of women captured and incorporated in project outputs.</p>	<p>Improved production of land.</p> <p>Improved organizational structure. Strategic planning for group.</p> <p>Increased income into the household.</p>	<p>Men spouses (women) increased income stream in household.</p>
	Risks/Costs	<p>Men exclude women from key decision-making project activities or alter participation of women.</p> <p>Men directly involved in project activities focus on land they have ownership on.</p>	<p>The ?lag? of adopting sustainable agroforestry practices versus traditional slash and burn based agriculture and/or value-added product development and business venture.</p>	<p>? Create conflict within household if women earning same or more than men (??)</p>

	Barriers	<p>Language barriers</p> <p>Time of meeting and day (they need to go to the farm). Have meeting at more convenient times (late evening/nights/weekends).</p> <p>Religion? church on Sundays or Saturdays</p> <p>Meeting fatigue</p> <p>Activities that are their interest (project activity versus other community activity)</p> <p>Weather</p>	<p>Language barriers</p> <p>Time of meeting and day (they need to go to the farm). Have meeting at more convenient times (late evening/nights/weekends).</p> <p>Religion? church on Sundays or Saturdays</p> <p>Competing priorities: Farm activities ? farmers would not leave farm to go to a meeting</p> <p>Meeting fatigue</p> <p>Activities that are their interest (project activity versus other community activity)</p> <p>Weather</p> <p>Unable to do overnight travel due to family commitment/cultural norms</p>	<p>Language barriers</p> <p>Time of meeting and day (they need to go to the farm). Have meeting at more convenient times (late evening/nights/weekends).</p> <p>Religion? church on Sundays or Saturdays</p> <p>Competing priorities: Farm activities and household activities.</p> <p>Meeting fatigue</p> <p>Activities that are their interest (project activity versus other community activity)</p> <p>Weather</p> <p>Unable to do overnight travel due to family commitment/cultural norms</p>
	Opportunities	<p>? Community development projects.</p> <p>Improve administrative and organizational duties of organized registered groups.</p>	<p>Women become members of organized farmers? group.</p> <p>Contribution of women recognized in organized farmers? group.</p>	<p>Men?s knowledge of women?s group increases.</p>

Table 7. Possible Solutions for Identified Barriers, Risks and Challenges

Barriers, Risks and Challenges	Solutions
Women become overwhelmed - pushed to balance household duties and responsibilities and involvement in project activities.	Examine whether those with the increased workload are benefitting from the project: If yes, be sure that participants perceive the benefits to outweigh the cost of extra work . If no, make intervention to alleviate/remove unnecessary burden.
? Disagreements or poor support from community members for those directly involved in project activities.	<p>Continuous project updates with community leaders, individual farmers, organized registered farmer and women groups and overall community.</p> <p>Easy access to information for community.</p> <p>Encourage organized registered farmers and women group to invest in community development in partnership with project and Ya?axche.</p>

<p>? The ?lag? of adopting sustainable agroforestry practices versus traditional slash and burn based agriculture and or value-added product business development/venture.</p>	<p>? Incorporate benefits of sustainable agricultural practices in meetings, trainings, workshops, etc</p>
<p>Conflicts between women and men on economic gains/benefits based on project.</p>	<p>Conduct gender training and follow-up trainings with project managers and staff (budget an amount for trainings/activities). Consult with women organization who may be working with similar communities.</p>
<p>Potentially personal capital/labour investment in businesses. Current management and business model cannot accommodate ?growth?.</p>	<p>In-depth training in business management and healthy financials for organized registered farmer and women groups. Include financial literacy and best practices in community enterprises in capacity building of women groups. Share information on access to credit as a group (as opposed to individually which may not be acceptable by spouse?)</p>
<p>Increased demand/time and responsibilities for women in executive committee/Board of women?s group.</p>	<p>Identify time of day/season men and women tend to be available and schedule activities then. Activities may need to be implemented multiple times to accommodate all groups. Provide sub-activities to children if women need to bring them to meetings, trainings, workshops, etc.</p>
<p>? Internal conflict if business environment expands or more members recruited.</p>	<p>Training in conflict-resolution for organized registered farmer and women groups. Identify one person from staff to address conflicts and work with group to identify resolutions during project.</p>

<p>Communities have Fajina and is mainly male dominated. This is tied to cleaning of common grounds (cemetery) and women are not expected to do the cleaning.</p> <p>The village police would typically go to the head of the household to inform of the meeting. Although the woman is met at the household, the notice is addressed to the male/head.</p> <p>For public meetings, the male would typically attend.</p>	<p>Work with local leaders and male project participants to explain the importance of women's participation and identify culturally-appropriate ways to allow for their participation.</p>
<p>Competing priorities: Females have domestic responsibilities (prep food, children, etc) which hinders their participation.</p>	<p>Identify time of day/season men and women tend to be available and schedule activities then.</p> <p>Activities may need to be implemented multiple times to accommodate all groups.</p> <p>Provide sub-activities to children if women need to bring them to meetings, trainings, workshops, etc.</p>
<p>Female uncomfortable speaking in public.</p> <p>Men do not encourage women to go to the meetings.</p> <p>The village police would typically go to the head of the household to inform of the meeting. Although the woman is met at the household, the notice is addressed to the male/head.</p>	<p>Conduct separate activities (e.g. roundtables) with men and women (with same-sex facilitators) so that they feel comfortable.</p> <p>Provide a 'foundational' workshop for individuals or groups who have less background/experience on the subject so that they can be prepared and knowledgeable.</p> <p>Be explicit with invitations. Provide invitations to the entire household (men, women, youths, elderly?).</p> <p>Conduct activities in local language or provide translation as needed.</p> <p>Work with local leaders and male project participants to explain the importance of women's participation and identify culturally-appropriate ways to allow for their participation.</p>
<p>Limited access to technology</p>	<p>Project communication component target youths of the communities. Can be a key influencer in providing information to household.</p>
<p>Limited access to information and/or sources of information</p> <p>Language barriers</p>	<p>Project communications target youths of the communities. Can be a key influencer in providing information.</p> <p>Create communication materials in languages (or with images) that everyone can understand.</p>
<p>Limited knowledge of subject matter</p>	<p>Tailor messages for different groups through the most appropriate communication channels (radio, written, informal, community meeting, local forms of communication, etc.) depending on how each get their information.</p>

Religion? church on Sundays or Saturdays	Respect religious practices of communities and identify appropriate day and time to conduct project activities.
Varying interest of women on topic of meeting.	Identify interests of women. Be clear on expectations.
Project provide transportation, food.	Conduct/coordinate activities closer to communities where you want to engage people. Provide transportation and food for activities Understand cultural norms around overnight activities and work with households to identify appropriate ways to allow for both men's and women's participation. Compensate people for their time and travel.
Weather may impede participation (rain, flooding, etc.)	Cancel activities with inclement weather
Limited inclusion in decision making process due to minimal women in leadership. Perception that women do not belong in leadership positions.	Work with local leaders and male project participants to explain the importance of women's participation and identify culturally-appropriate ways to allow for their participation. Project staff to equally invite men, women and youths to project activities. Do not segregate participation. Project provide support to women who assume leadership positions via trainings, advice, mentoring, etc. Gender training as part of capacity building for registered organized groups. Project to encourage gender mainstreaming? Gender equity?
COVID ? restrictions on gathering	Adhere to clean and sanitized environments. Have in place protocols for when participants are feeling ill. Emergency response mechanism in place.
Women do not typically access resources from protected areas and rely on men to do so.	Management plans, NTFP policy guidelines, community diagnostic assessments, and other frameworks should be gender inclusive and gender sensitive
Men exclude women from key decision-making project activities or alter participation of women. Men directly involved in project activities focus on land they have ownership.	Identify organization that work with domestic issues of women and communities. Conduct separate activities (e.g. roundtables) with men and women (with same-sex facilitators) so that they feel comfortable.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

This project will engage with the private sector at multiple levels:

Private Reserves: The Project will work to effectively improve the management of private reserves within the area of influence of the broader Maya Golden Landscape. This will be done through the development of ILM action plans as in Outcome 1.1

Partnerships with Post-harvesting processing and commercialization companies: While the MGL has few private sector firms, the proposed project will engage one private sector agribusiness in the project activities. This will be done through the implementation of Outcomes 2.1 and 2.2 as part of the implementation of biodiversity-positive production practices in forest reserves and community zones. Deployment of these innovative production practices with Yaxché's support will have the potential to scale within the MGL, allowing for a greater income generating opportunities for the MGL's farmers. An example of such engagement is the co-financing support from MMC that will contribute with post-harvesting processing equipment.

Local Communities, cooperatives and associations: Local communities will be directly benefited from training and site implementation support for the promotion of biodiversity-positive farming practices on community lands (Outcome 2.2). This will be complemented by the community assessments, and community ILM planning workshops and strategies implemented by Outcome 2.2.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

1. Risks to the project have been identified and analyzed during the project preparation phase and mitigation measures have been incorporated into the Project design (see Table 8). With the support and supervision of FAO, the Project Coordinating Unit (PCU) will be responsible for managing these risks as well as for the effective implementation of mitigation measures. The M&E system will serve to monitor outcome and output indicators, project risks, and mitigation measures. The PCU will also be responsible for monitoring the effectiveness of mitigation measures and adjusting mitigation strategies as necessary as well as to identify and manage any new risk that has not been identified during the preparation of the Project, in collaboration with its partners.

2. The bi-annual Project Progress Reports (PPR) constitute one main instrument for monitoring and risk management. The PPRs include a section that covers the systematic monitoring of risks and mitigation actions that were identified in the previous PPRs. The PPRs also include a section for the identification of eventual new risks or risks that still need to be addressed, their qualification and mitigation actions, as well as those responsible for monitoring such actions and their estimated deadlines. FAO will monitor the risk management of the project closely and follow up as necessary, providing support for the adjustment and implementation of mitigation strategies. The preparation of reports on risk monitoring and their rating will also be part of the Project Implementation Report (PIR) prepared by FAO and submitted to the GEF Secretariat.

3. **Table 8.** Risks to the Project.

Risk Description	Level	Probability of Occurrence	Mitigation Measures	Responsible
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1. <u>Environmental/Climate change</u> : Risks due to the effect of climate change adversely affecting productivity of agricultural production and ecosystems in PAs and community zones	Medium	Medium	<p>This risk will be mitigated by the following:</p> <p>Integrated land management planning supported by this Project in the forest reserve and community zones incorporates climate change considerations into conservation and production/land use decision making.</p> <p>Capacity building at the national and local levels, including implementation partners, incorporates climate resilience issues into trainings, planning, conservation, outreach, and sustainable and climate smart agricultural practices that enhance adaptation to climate variability and change. The adoption of sustainable agricultural practices (climate smart production, agroforest, agroecology, forest restoration) will support adaptation to climate changes and variability. Support for value added production practices, particularly targeting women, also reduces the exposure and vulnerability of livelihoods through diversification.</p> <p>Enhanced management and protection of PAs and forests in community zones (through ILM support on a community-by-community basis) minimizes greenhouse gas emissions.</p>	PCU, in coordination with YCT and GoB
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<p>2. <u>Climate change</u>: Forest conservation and production activities can be seriously affected by the adverse consequences of climate change, e.g., droughts, high temperatures that increase likelihood of wildfires, particularly from the traditional milpa slash-and-burn forest clearing practice for production activities</p>	Medium	Medium	<p>This risk will be mitigated by the following: The Project is supporting the promotion of sustainable traditional agricultural practices that do not include the use of slash-and-burn and encourages more permanent plots to reduce forest loss. While some Indigenous communities continue to implement this method of land clearing and forest wildfires take place, the Project will expand YCT outreach, training, and implementation support throughout the MGL and beyond for the sustainable practices, ultimately aiming to reduce forest loss and forest wildfires.</p>	PCU, in coordination with YCT and GoB
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<p>3. <u>Social</u>: Resistance of Indigenous community members and producers to adopt sustainable and environmentally friendly practices and integrated land management.</p> <p>-</p>	Medium	Low	<p>This risk will be mitigated by the following: The Project's Executing Partner, YCT, has been working with the communities within the MGL since 1998, and specifically with supporting sustainable agricultural practices and conservation in communities who identify the need for, and support these practices, with endorsement of the Indigenous Community Elders. Trainings, outreach, and support for sustainable production will help raise awareness of 1) the need for sustainable agricultural production practices (integrating traditional milpa farming) to reduce forest loss and 2) the benefits that forests bring to livelihoods and biodiversity. These trainings and outreach can contribute to adoption and ownership of these practices and activities, both within the MGL and beyond by expanding these services (i.e., MoA Extension Services Officers throughout Beize's 6 Districts).</p> <p>This risk pertains to Indigenous Peoples producers throughout the MGL community zones. The FPIC process will be carried out during Project Inception, prior to implementation of activities. In addition, the Project through YCT, will carry out extensive communication and dialogue on a village by village bases to determine if there is interest in participating in the project's activities related to sustainable agricultural practices and integrated land use planning to ensure that only those villages that express interest and request Project support, endorsed by Indigenous Community Elders and a completed FPIC process, will be involved with these activities. YCT already has extensive collaborative experience working with and supporting communities within the MGL and will build on this mutual respect and trust earned in</p>	PCU, in coordination with YCT and GoB
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4. <u>Social</u> : Current land demarcation issues of Mayan lands in the Toledo district may result in resistance of communities to spatially demarcate land use areas within their communities for ILM planning	Low	Medium	Current Mayan land demarcation issues in the Toledo district, supporting land rights for Indigenous Peoples in Belize, may result in the lack of willingness of communities to identify and map geo-referenced resources and boundaries to support land management planning on community lands. To mitigate this, the Project will approach the community?s village by village to invite participation and will support communities interested in participating in land use planning, and only in the manner and to the extent the community requests. Creative alternatives associated with land use identification will be available that avoid geo-referenced delineations, including for example participatory 3D mapping, non-georeferenced hand drawn maps, and land use and planning strategies that do not address geo-referenced boundaries but can also be used in the future for ILM planning.	PCU, in coordination with YCT and GoB
5. <u>Political/Organization</u> : Changes in political circumstances and government priorities can affect decision-making, project support and continuity and post-project sustainability.	Medium	Low	This risk was mitigated through broad stakeholder engagement throughout the Project preparation, including support of the Government of Belize, and the continuation of this engagement throughout Project implementation will help ensure continued political support. Community land governance mechanism in the Toledo District is supported by local governance structures, including Maya Leaders Alliance and Toledo Alcaldes Association (organization of all the Alcaldes of the Toledo District and the customary elected leaders of the Maya Villages), which may serve as a safeguard against ad-hoc national policy changes.	PCU, in coordination with YCT and GoB

<p>6. <u>Gender</u>: Project implementation may continue existing gender inequality.</p> <p>ESS6. Gender equality and prevention of gender-based violence</p>	Medium	Low	<p>This risk will be managed through the Gender Action Plan (GAP) which was prepared and integrated into the Project proposal, provides equal opportunity to women and men to partake in decision making, participate in and benefit from, Project activities. This includes training, livelihood opportunities, enhanced sustainable, climate smart and conservation supported production practices. The Project's gender indicators and gender supported activities suggest positive gender results and impacts from the Project. The gender analysis and YCTs experience working with the Project's communities, women, and men, since 1998 has helped ensure that the design and implementation of the Project will avoid gender-based discrimination while respecting Indigenous People's culture and social structure</p>	PCU, in coordination with YCT and GoB
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<p>7. <u>New agribusiness:</u> The MGL is an attractive landscape for production of commodities associated with deforestation, including more recently cattle. It is possible that as global demand for this and other commodities rise, there will be increased pressures on the MGL's forests in community zones and forest reserves, from new agribusiness companies and farmers.</p>	Low	Low	<p>For the MMNFR, this risk is mitigated through Output 1.1.1 that focuses on development of the forest reserve management plans and its co-management by YCT. This plan will be developed for the purposes of supporting biodiversity, with clearly defined areas for sustainable agricultural practices to support livelihoods. Sustainable production areas will be situated on buffering areas of vulnerability of incursion along the forest reserves edge, supporting the existing sustainable and biodiversity friendly cacao agroforestry concession in this buffer area, and not supporting any concession for agribusinesses in its management planning and management rules. On community lands, this risk is mitigated in part by community ownership of lands and YCT's ongoing work supporting sustainable agroforestry, though agribusiness may be chosen as an alternative to traditional farming on community lands outside, and possible within, those with which YCT works.</p>	<p>PCU, in coordination with YCT and GoB</p>
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8. <u>COVID-19 in MGL</u>	Low	Medium	During the project implementation, World Health Organization and Belize Government measures will be used to address safety from COVID-19. On communication and awareness raising on the prevention of health risks, the project will continue to convey the use of safety measures following the Belize Ministry of Health guidelines. Executing partners will be informed for the integration of sensitization of communities on COVID-19 prevention in their activities. All project workshops will be conducted in line with the ministry of Health's Guidelines on the developing COVID-19 situation.	PCU, in coordination with YCT and GoB
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Climate Change Risk^[1]

4. The climate risk of the aforementioned project is **moderate**, on a scale of low, moderate, high, and very high. Although the project modulates to some extent the risk along the Maya Golden Landscape, particularly through mitigation and adaptation strategies, it is likely that the probability and exposure to hazards in the near and mid-term future will increase. Hence, despite of the proposed risk modulating measures, the moderate risk will remain constant overtime.

5. **Climate baseline.** According to Köppen's climate classification map, southernmost parts of Belize (including the Maya Golden Landscape) have a tropical rainforest climate (Af) whereas the northernmost parts have a tropical monsoon (Am) and savanna climate (Aw). The Maya Golden Landscape is characterized for its very wet conditions (2000-3000mm/year), with monthly average precipitation exceeding 80mm. The highest precipitation is observed between May and November (>200mm/month), coinciding with the hurricane season in the North Atlantic. Precipitation often exceeds 300mm/month between June and October in Punta Gorda, to the south of the Maya Golden Landscape. During this time of the year, tropical storms are formed at 5 to 10°N over Western Africa and are slowly drifted by easterly winds towards the Gulf of Mexico; where they can become major hurricanes (>180km/h) depending on how much the depressions are fueled by air moisture from warm sea surface temperatures. Overall, interannual precipitation within the region is controlled by sea surface temperatures, due to its connection with the tropical upper tropospheric trough. Because of its tropical maritime location, temperature changes throughout the year are generally small, with average temperatures around 23°C during the boreal winter and 27°C during the summer months. While the annual average temperature is of 25°C, daytime temperatures rarely exceed 30-35°C and nighttime temperatures often remain above 15 to 20°C.

6. **Historical climatic trends: temperature and precipitation.** According to the World Bank Climate Change Knowledge Portal, since 1960 mean annual temperatures in Belize have increased by 0.45°C, equivalent to an average rate of 0.10 °C/decade. Additionally, the frequency of hot days and nights has increased by 67 days/year and the number of cold nights has decreased by 21 days/year, respectively

with respects to the 1960 and 2003 baseline period. Although Belize has a scarce weather observation network, some studies conclude that precipitation has decreased at an average rate of 3.1mm/decade; however, the latter precipitation trend is not statistically significant. There has also been an intensification of maximum 5-day rainfall, with an increasing trend of 5.4mm/decade over the 1960-2006 baseline period. Historical weather information retrieved from Belize's International Airport shows statistically significant difference with a positive trend on maximum daytime temperatures higher than the 90th percentile and a significant negative trend on minimum daytime and nighttime temperatures along the 1961-2003 period (Aguilar et al., 2005).

7. **Future climatic trends: temperature and precipitation.** Studies using regional climate models (RCMs) show a temperature increase of 2-5 °C (2-4°C) over the Caribbean region under the A2 (B2) future climate scenario (Campbell et al., 2011). This increase is comparable to that projected by the IPCC at a global scale. Additional studies using statistical downscaling models to investigate future projections under the worst-case scenario (IPCC-A2) estimate an (i) increase in the number of very wet days, (ii) increase in the number of consecutive dry days, (iii) slight decrease in maximum 5-day rainfall amount, particularly between October and December, and (iv) annual increase in precipitation overtime along Belize (Jones et al., 2016). Finally, sea level rise is projected to increase by a range of 18 to 60 cm by the end of the century with respects to the 1980-1999 baseline period.

8. **Vulnerability and exposure to natural hazards.** As a low-lying coastal country, dependent on climate-sensitive industries, including fisheries, agriculture and tourism, Belize is recognized as one of the most vulnerable countries to weather hazards and climate variability (from El Niño Southern Oscillation). According to the ND-GAIN index (2017), Belize has a moderate to high vulnerability to weather related extremes (ranked 123 out of 181 countries), being the result of a moderate exposure to natural hazards (placed 126/192 countries) which are, to some extent, counteracted by a moderate adaptive capacity (placed 113/175 countries).

9. Over the past 30-years, floods and storms have been the most recurrent hydrological and meteorological hazards in Belize. However, in 1990, an extreme and unprecedented cold wave had an estimated economic damage of USD 2.25 million. The country is prone to hurricane impacts as it lies on the path of the majority of Atlantic storms. Specific high-impact events include tropical cyclone Mitch (1998) and Keith (2000), being among the most destructive hurricanes to ever hit the country and having the highest death tolls. At that time, early disaster response systems in Belize were very much reactive with no structured mechanisms nor anticipatory responses to mitigate its impacts. More recent high-impact events include hurricane Eta (in 2020), which resulted in total precipitation accumulations of 250-600mm in few days and affecting over 50,000 people across the country.

10. Overall, climate change is expected to have irreversible losses to Belize's economy, with a decline in tourism demand, facility losses and destruction of coral reef-based ecotourism from sea level rise. Additionally, some of the projected impacts on agriculture, forestry and ecosystems include, with a very high probability, the impoverishment of crops in the warmest regions due to increasing heat-stress conditions and more frequent insect infestation just like higher risk of uncontrolled fires (ECLAC, 2013). It is also very likely that, during episodes of more intense and frequent precipitation, crops will be damaged, soil erosion aggravated, and soils saturated with water making it difficult to cultivate the land. With a lower level of likelihood when compared to the previous hazards, increase in drought events will likely result in loss of livestock heads, besides damaging crops. Finally, sea level rise will adversely impact water resources by salinizing water estuaries and freshwater systems.

11. **Climate resilience.** The Global Facility for Disaster Reduction and Recovery (GFDRR) has ongoing projects on climate resilient infrastructure and resilience to climate change in Belize. However, the GFDRR acknowledges very little attention to resilient cities, hydromet services and early warning systems, financial protection, social resilience, and resilient recovery. Additionally, some studies have reported barriers and limitations when delivering climate services to agricultural end-users. Some of these barriers are related to the coproduction of services and limited national capacity for weather forecast modelling[2]. Despite of the previous, the National Meteorological Service has implemented a bundle of forecast services including general weather forecast, marine forecast, aviation forecast, fire forecast, and sargassum forecast. Additionally, it contains a whole set of tropical weather outlooks, advisories and reports that are produced during the hurricane season. With regards to the agricultural services, and of interest for this project, agrometeorological forecasts and bulletins, seasonal outlooks, and drought forecast are delivered on regular basis (Figure 11).

12. Furthermore, Belize has developed a toolkit for the Green Climate Fund in order to maximize financing opportunities for executing climate change adaptation and mitigation projects. The country is also part of the Coral Reef Early Warning System (CREWS) network in the Caribbean that monitors ocean acidification and thermal stress affecting coral reefs and lead to coral bleaching. It also belongs to the Central American Flash Flood Guidance System that provides reliable and effective local flash flood warnings and improves disaster management efficiency.

13. With regards to the National Action Plan (NAP), Belize has identified different priority sectors, including agriculture, forestry, fisheries, coastal management, and water. With regards to forestry, the country has committed to reduce its greenhouse gas emissions by 3.3 million tons/annually and has a program to provide subsidies for increasing carbon sequestration and imposing taxes on carbon releases.

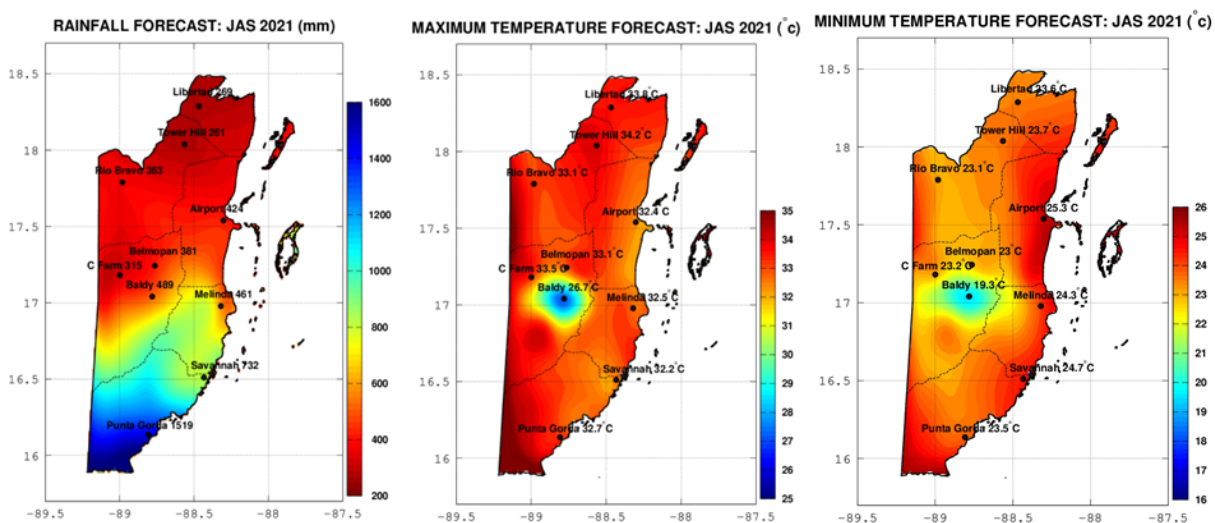


Figure 11. Long-term outlook (July, August, and September 2021) of precipitation, maximum and minimum temperature across Belize (<http://nms.gov.bz/>)

[1] From the Climate Risk Screening Report prepared at PIF stage. Full report in Annex x

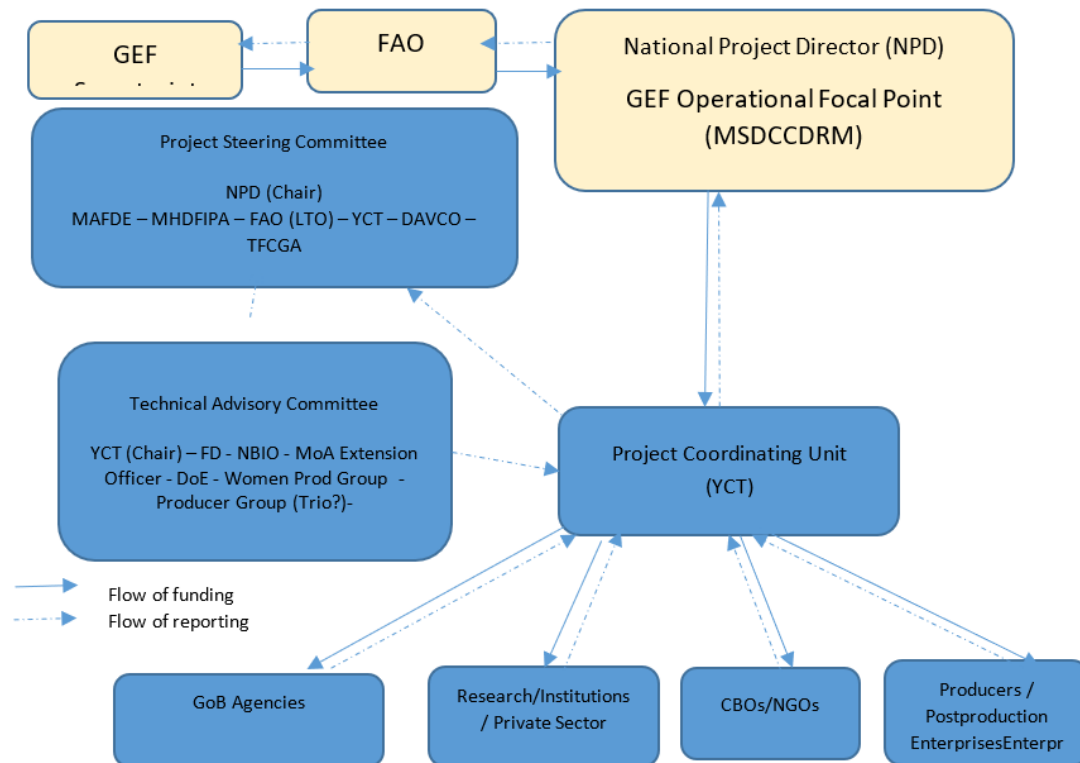
[2] (Haines, 2019).

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

6.a. Institutional arrangements for project implementation.

1. Ya'axch' Conservation Trust will act as the lead executing agency and will be responsible for the day-to-day management of project results. FAO will provide oversight as GEF implementing agency as described below.
2. Letters of Agreement (LoAs) will be signed between FAO and Ya'axch' Conservation Trust, to serve as the Project's Executing Partner for the implementation of the Project's activities and ensure timely and effective implementation of all Project Components, and their component Outcomes, Outputs and Activities. Details of the LoA and the Executing Partner commitments will be included in the Terms of References for the LoA prepared by FAO, in consultation with the Project's Executing Agency, Ministry of Sustainable Development, Climate Change and Disaster Risk Reduction. This LoA will be supervised by FAO's Lead Technical Officer (LTO). The funds received by the service provider will be used to carry out proposed project activities ensuring alignment and conforming to the rules and procedures of FAO.
3. The project organization structure is as follows:



4. The GEF Operational Focal Point (MSDCCDRM) will be the Government of Belize's focal point for the Project, also referred to here as the National Project Director (NPD). The NPD will liaise directly with FAO as needed on Project related matters. The NPD will chair the Project Steering Committee (PSC) which will be the main governing body of the project. The PSC will meet bi-annually, approve annual work plans and annual budgets on a yearly basis, and will provide strategic guidance to the Project Coordinating Unit (PCU) and to all executing partners. YCT will be responsible for implementation of Project activities and all day-to-day activities, with the Project Coordinating Unit reporting to the NPD and PSC.

5. The PSC will be comprised of representatives from MSDCCDRM (NPD, Chair), MAFDE, MHDFIPA, District Association of Village Council Organization (DAVCO), and Trio Farmers Cacao Growers Association (FCGA, President of the Board).

6. The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and links between the project activities and the work plan of their agency; and (iv) facilitate the provision of co-financing to the project. Members of steering committee has right to invite other entity to speak and contribute information to the PSC, including members of the Technical Advisory Committee.

7. The Project Coordinator (within YCT) will be the Secretary to the PSC. The PSC will meet at least twice per year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of governmental partners work under this project; vi) Approval of the six-monthly Project Progress and Financial Reports, the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the National Project Coordinator of the PCU.

8. A Technical Advisory Committee (TAC) will advise the PSC on all technical matters related to the Project and will provide information to the PSC enable informed decision-making. This will be facilitated by YCT. Members of the TAC will have the right to directly address the PSC on specific matters of interest or concern. The TAC also has the right to invite a specialist to present to or participate on TAC for meetings on a specific topic for which their expertise

9. A Project Coordinating Unit (PCU) will be co-funded by the GEF grant and established within Ya?axch? Conservation Trust, Golden Stream, Toledo District, Belize. The main functions of the PCU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation, and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The PCU will be composed of a Project Coordinator who will work full-time for the project lifetime. In addition, the PCU will include an Administrative Assistant/Finance Associate (full-time), supported by National Advisors (part-time consultancies for a Gender Specialist, Indigenous Peoples Specialist, Monitoring & Evaluation Specialist, Biodiversity/Conservation Specialist, and Sustainable Agriculture/Agroecology Specialist)[1].

10. The Project Coordinator (PC) will oversee daily implementation, management, administration, and technical supervision of the project, on behalf of the Operational partner and within the framework delineated by the PSC. S/he will be responsible, among others, for:

- i) Coordination with relevant initiatives:
- ii) Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels.
- iii) Ensuring compliance with all Operational Partners Agreement (OPA) provisions during the implementation, including on timely reporting and financial management.
- iv) Coordination and close monitoring of the implementation of project activities.
- v) Tracking the project's progress and ensuring timely delivery of inputs and outputs.
- vi) Providing technical support and assessing the outputs of the project national consultants hired with GEF funds, as well as the products generated in the implementation of the project,
- vii) Approving and managing requests for provision of financial resources using provided format in OPA annexes.
- viii) Monitoring financial resources and accounting to ensure accuracy and reliability of financial reports.
- ix) Ensuring timely preparation and submission of requests for funds, financial and progress reports to FAO as per OPA reporting requirements.
- x) Maintaining documentation and evidence that describes the proper and prudent use of project resources as per OPA provisions, including making available this supporting documentation to FAO and designated auditors when requested.
- xi) Implementing and managing the project's monitoring and communications plans.

- xii) Organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan.
- xiii) Submitting the six-monthly Project Progress Reports (PPRs) with the AWP/B to the PSC and FAO.
- xiv) Preparing the first draft of the Project Implementation Review (PIR).
- xv) Supporting the organization of the mid-term and final evaluations in close coordination with the FAO Budget Holder and the FAO Independent Office of Evaluation (OED).
- xvi) Submitting the OP six-monthly technical and financial reports to FAO and facilitate the information exchange between the OP and FAO, if needed.
- xvii) Informing the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support.

11. The Food and Agriculture Organization (FAO) will be the GEF Implementing Agency (IA) for the Project, providing project cycle management and support services as established in the GEF Policy. As the GEF IA, FAO holds overall accountability and responsibility to the GEF for delivery of the results. In the IA role, FAO will utilize the GEF fees to deploy three different actors within the organization to support the project (see Annex x for details):

- ? The Budget Holder (BH), which is usually the most decentralized FAO office, will provide oversight of day-to-day project execution.
- ? The Lead Technical Officer(s), drawn from across FAO will provide oversight/support to the projects technical work in coordination with government representatives participating in the Project Steering Committee.
- ? The Funding Liaison Officer(s) within FAO will monitor and support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements.

12. FAO responsibilities, as GEF agency, will include:

- ? Administrate funds from GEF in accordance with the rules and procedures of FAO.
- ? Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, Operational Partners Agreement(s) and other rules and procedures of FAO.
- ? Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned.
- ? Conduct at least one supervision mission per year; and
- ? Reporting to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, the Mid Term Review, the Terminal Evaluation, and the Project Closure Report on project progress.
- ? Financial reporting to the GEF Trustee.

6.b Coordination with other relevant GEF-financed projects and other initiatives.

13. During the formulation of this Project Document, the need was identified to coordinate actions with other initiatives. While various projects are outlined in the Project's baseline initiatives that include past projects from which to incorporate lessons learned, there are 2 key GEF-funded projects whose implementation will coincide with this MGL Project and with which it will coordinate, which are described below (Table 10) in more detail.

Table 10. Other projects with which to work in close coordination

Project	Description	Relevant outputs for the MGL Project
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<p>Integrated management of production landscapes to deliver multiple global environmental benefits (GEF Project ID# 9796)</p>	<p>Objective: The objective of the project is to mainstream biodiversity conservation and sustainable land/water management into production landscapes in Belize.</p> <p>Duration: 2019-2024 Source of financing: GEF / UNDP <u>Executing agency:</u> Ministry of Agriculture, Fisheries, Forestry, the Environment and Sustainable Development (MAFFESD) <u>Responsible parties:</u> Ministry of Natural Resources (MNR) and the Friends of Conservation and Development (FCD) Amount of funding (GEF): US\$ 5,108,933</p>	<p>This UNDP-GEF project integrates BD conservation and sustainable production practices with a focus on water and watershed management in the Belize River Watershed in Central Belize, primarily the Cayo District which is located north of the Maya Golden Landscape. While this MGL Project is complimentary to some similar national efforts for biodiversity conservation (supporting Forest Department GIS Office, capacity building for sustainable production with small scale producers, training) to reduce forest loss and reduce emissions while promoting sustainable agriculture for livelihoods, the UNDP-GEF Project's community and watershed activities focus on capacity building within the BRW. The MGL Project focuses on the Maya Golden Landscape, and while efforts will enhance management and implementation systems at the national level, efforts in this MGL Project focus on enhancing efforts on the Forestry Department co-management partner, YCT, to ensure continued conservation and sustainable production for and within the biodiversity rich MGL. Both projects synergize with the support for sustainable farming production in community zones outside of protected areas and will work with Mayan communities to support value-added production and market support for additional income generation through small enterprises in a gender responsive way. Collaboration, synergies, and lessons learned will continue to be explored and benefited from throughout Project implementation, with communication and sharing of programmes and plans to continue to ensure that duplication of efforts is avoided.</p> <p>The main activities are:</p> <p>Output 1.3: Diversified financial incentives developed and established through a participatory process (including women, Indigenous peoples, and other vulnerable groups) to implement biodiversity-friendly production practices and sustainable water management and use strategies.</p> <ul style="list-style-type: none"> ? an incentive program to promote biodiversity conservation, and sustainable land and water management in production lands. ? Review of the existing strategies, programs, policies, and legislation that may lead the sustainable/unsustainable use of natural resources and propose amendments <p>Output 1.4: Expanded information management systems includes mechanisms and protocols such as databases and online map viewer for data gathering access and information sharing between institutions to strengthen biodiversity conservation, land/water resource management, and sustainable agricultural management.</p> <p>Output 2.1: Landscape management tools used in priority areas for biodiversity conservation: c. Improved Forest Monitoring system for enhanced land-use change monitoring within the BRW.</p> <p>Output 2.6: Awareness program for producers, technicians, and government officials in the production sector (agriculture, tourism, forestry, and urban development and industry) informs</p>
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<p>Enhancing jaguar corridors and strongholds through improved management and threat reduction (GEF Project ID# 6397)</p>	<p>To secure jaguar corridors and strengthen the management of jaguar conservation units through reduction of current and emerging threats, development of sustainable wildlife economy and enhanced regional cooperation</p> <p>Duration: 2021-2024 Source of financing: GEF / UNDP <u>Executing agency:</u> Ministry of Fisheries, Forestry, the Environment and Sustainable Development (MFFESD) US\$ 1,234,404</p>	<p>This UNDP-GEF Jaguar Project complements the implementation of MGL Project activities in the MGL. Coordination will take place to ensure no duplication of efforts. This will be explored further during Project inception and will be informed further based on status of implementation of the activities of the UNDP-GEF Jaguar project. As YCT is responsible for implementation of Jaguar project activities within the MGL, this will help ensure coordination and that no overlap or duplication of efforts take place. Furthermore, data gathered and supported by YCT for the Jaguar Project will ensure integration into this FAO MGL Project to further support conservation decision-making.</p> <p>Component 3 will take place within the MGL. Its main activities are the following:</p> <p>? Estimating general abundance measures for the different wildlife species present on community farms, providing an informed baseline for presence of about the presence and abundance wildlife and other biodiversity in the community zones. This will help enhance this MGL Project's baseline biodiversity information and inform MGL wide conservation planning.</p> <p>? Output 3.1.1 Recruit community members to participate in camera trap surveys on community lands to assess game species abundance and jaguar presence. This will support community capacity through training of use of camera traps and enhanced knowledge of BD use of forests, supporting the MGL Projects objectives.</p> <p>? 3.2.1 Develop community resource use management plans. While this pertains to hunting of game and Jaguar species, planning efforts may contribute to this MGL Project's ILM planning efforts</p> <p>? YCT's participation in data-sharing protocol/framework for the Jaguar Project and contribution to data gathering and management, which will be coordinated with, and integrated into this MGL Project's database management support.</p>
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[1] Please attach in annexes the TOR of the members of the PCU and TOR of profiles budgeted on Project Management Costs (PMC)

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

7.1 Consistency with National development objectives and policies

1. The Project is well aligned with **Belize's National Biodiversity Strategy and Action Plan** (NBSAP; 2016 ? 2020) based on Belize's commitment to the conservation and sustainable development of national biological diversity. Project is aligned with five goals of the NBSAP (as they pertain to terrestrial ecosystems). The NBSAP's goal is to mainstream biodiversity into all sectors of society so that by 2020 there will be an improved environmental stewardship, understanding and appreciation of terrestrial biodiversity, their benefits, and values[1]. It furth aims to reduce direct and indirect pressures on terrestrial ecosystems to sustain and enhance national biodiversity and ecosystem services, as well as protect functional ecosystems and viable populations of Belize's biodiversity. Its further goal is the derive benefits through strengthened provision of ecosystem services, ecosystem-based management, and to carry out these goals through effective implementation through capacity building, informed strategic decision making and integrated public participation.
2. The Project is aligned with the **National Protected Area System Act** (2015), in particular Act PART II, Section 5 objectives: (b) promote long-term conservation, management, and sustainable use of Belize's protected areas; (c) promote conservation of ecologically viable areas representative of Belize's biological diversity and its natural landscapes and seascapes; (d) ensure maintenance of genetic diversity and the diversity of species and habitats within these areas, including but not limited to threatened species and species of economic, social or cultural value.
3. The Project is also consistent to the **National Protected Area System Plan** Revised Edition 2015, updated and aligned with the NPAS Act (2015), reflects the Constitution of Belize, and is founded on the need to ensure that biodiversity conservation becomes an important and integral part of national social and economic development. The guiding principle is to ensure that the potential contribution of the protected areas system to national development and poverty alleviation is maximized.
4. This Project is also consistent with **Belize's National Development Framework ?Horizon 2030?** that asserts the tenet that Belize's economic development is contingent on preserving its environment and its wealth of natural resources, including planning for the effects of climate change. Agriculture features prominently as a driving force for economic stability and the need to support its resilience is elaborated through emphasis on appropriate infrastructure, technology, financial access, incentives, and security (insurance) for farmers, marketing, value adding and education in agriculture and entrepreneurship. The framework also elaborates on the critical need for community cooperation and planning for effective agriculture development. **Horizon 2030** also aligns closely with this Project and FAOs mandate on ?building economic resilience by increasing sustainable agricultural production, value-added products and agro-processing?[2].
5. This Project is aligned with the **National Agriculture and Food Policy of Belize** (2015 ? 2030), in particular the objectives of raising the level of productivity of smallholders, supporting market driven production, and increasing resilience of the sector to (in this Project's instance) natural shocks through value added and more diversified income streams from sustainable production.

6. This Project is also aligned with the **Plan of Action for Disaster Risk Reduction in Agriculture** (POA)_which elaborates strategies and action plans that include improve knowledge and access of local communities to climate information and early warning messages tailored to the needs of agricultural producers, enhance application of good practices interventions at local level to increase resilience against natural hazards and climate risks.

7. The Project is also aligned with Belize's **First Nationally Determined Contribution (Updated submission 2022)**, which includes contributing to: 1) avoided emissions (total across all sectors of 5,647 KtCO₂e between 2021 and 2030)[3]; 2) in Agriculture by improving the management of 80,000 hectares of the agro-landscape through good agricultural and silvopastoral practices, including by bringing 30,500 hectares under sustainable agriculture systems with biodiversity benefits and 15,000 hectares in production systems under sustainable land management; and 3) in Land Use Change and Forestry by reducing degradation in 42,600 hectares of forest within protected areas by reducing fire incidence, improving logging practices, and controlling other human disturbance by 2030, *and* incorporate and monitor agroforestry practices into at least 8,000 hectares of agricultural landscapes by 2030 by planting shade trees, in line with the draft National Agroforestry Policy, with 4,500 hectares of this being implemented by 2025 conditional on adoption, implementation and financing of the agroforestry policy. Though still in draft, the Project will align with Belize's National Action Programme (NAP) under UNCCD which will identify measures that contribute to, and to combat desertification.

8. The **National Land Use Policy (NLUP)** explicitly states that it is intended to guide Belize towards an environmentally and socially responsible use of land resources that enables national development. It recognizes that Belize's principal natural resources are land, forestry, the natural terrestrial ecosystems with their fauna and flora, marine ecosystems, and that these resources form the base for a number of important industries in the economy. The Project is also aligned with its Natural Resource and Conservation Strategy that states that the integrity of protected areas that fall under the National Protected Areas System (including forest reserves that fall under the Forests Act) that must be guaranteed by ensuring a high level of administration, with comprehensive management plans being developed for each of them, being supported by this Project. The policy also proposes the establishment of biological corridors as a set of ecosystems intended to ensure the connectivity of protected areas across the country, a key component of the MGL within the PA network and forests of Belize.

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7.2 Consistency with FAO's Strategic Framework and Objectives

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9. This project is in line with FAO's Strategic Framework 2022-31 and its 3 Global Goal to more efficient, resilient, and sustainable agri-food systems for its *four betters*[4]. The Project alignment with Programme Priority Areas (PPA) includes, but is not limited to, the following:

PPA Better Production: Ensure sustainable consumption and production patterns through efficient and inclusive food and agriculture supply chains at local, regional, and global level, ensuring resilient and sustainable agri-food systems in a changing climate and environment.

- ? BP1: Innovation for sustainable agriculture production: Sustainable crop, systems that are productive, resilient, innovative, and competitive, and create integrated entrepreneurial and business opportunities, inclusive of small scale and vulnerable producers, supported through enabling technologies and policies.

- ? BP4: Small-scale producers? equitable access to resources: Enhanced equitable access of small-scale producers and family farmers to economic and natural resources, markets, services, information, education, and technologies ensured through improved policies, strategies, and programmes.

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PPA Better Environment: Protect, restore, and promote sustainable use of terrestrial and marine ecosystems and combat climate change (reduce, reuse, recycle, residual management) through more efficient, inclusive, resilient, and sustainable agri-food systems.

- ? BE1: Climate change mitigating and adapted agri-food systems: Transformation and resilience of agri-food systems to achieve sustainability and Paris Agreement goals enabled through the establishment and implementation of climate-smart agricultural practices, policies, and programmes.
- ? BE3: Biodiversity and ecosystem services for food and agriculture. Biodiversity for food and agriculture maintained and sustainable use, conservation and restoration of marine, terrestrial and freshwater ecosystems, and their services promoted through adoption of targeted policies and practices.

PPA Better Life: Promote inclusive economic growth by reducing inequalities (urban/rural areas, rich/poor countries, men/women).

- ? BL1: Gender equality and rural women?s empowerment: Women?s equal rights, access to, and control over resources, services, technologies, institutions, economic opportunities, and decision-making ensured, and discriminatory laws and practices eliminated, through gender-responsive policies, strategies, programmes, and legal frameworks.
- ? BL5: Resilient agri-food systems: Resilience of agri-food systems and livelihoods to socio-economic and environmental shocks and stresses strengthened through improved multi-risk understanding and effective governance mechanisms for implementation of vulnerability reduction measures.

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7.3 Consistency and alignment with SDG?s.

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10. The Project is aligned with a number of the SDGs; SDG 15 - Life on land, through strengthening governance structures, including clear mandates regarding water and forest resources management, improving habitat to biodiversity, improving water quality, and reducing pressures to KBAs by promoting sustainable production practices and enhancing ecosystem connectivity in their surrounding landscapes; SDG 1: No poverty, by targeting vulnerable small farmers (men and women equally) and supporting sustainable production practices that will contribute to food security; SDG 5 ? Gender equality and women?s empowerment, through benefits to women and men from biodiversity conservation and sustainable agricultural activities, and women empowerment through their activity participation in related decision-making processes; SDG 8 ? Decent work and economic growth, by focusing on production sectors (agriculture and forestry) that employs a large sector of the population and adding value to selected

products and decoupling economic growth from environmental degradation; and SDG 13 ? Climate action, by building ecosystem resilience to climate change and mitigation greenhouse gas (GHG) emissions.

[1] National Biodiversity Strategy and Action Plan. 2016.

[2] FAO 2015. COUNTRY PROGRAMMING FRAMEWORK FOR BELIZE. 2016 ? 2019.
<https://www.fao.org/3/br880e/br880e.pdf>. Accessed 4 July 2022.

[3] Maintaining deforestation outside of protected areas below 0.6% annually, in line with the REDD+ strategy, could deliver an additional 24 MTCO₂e in avoided emissions.

[4] <https://www.fao.org/3/cb7099en/cb7099en.pdf>

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

1. Knowledge management will be a cross-cutting activity throughout the project, to develop institutional memory, promote continuous learning, produce documentation to support scaling-up of project results with continued capacity development. The MLG knowledge management activities will be aligned with the principles defined in the FAO Knowledge Management Strategy[1] that are aimed at government stakeholders, project beneficiaries and their partners, including taking into account cultural sensitivities, particularly as they relate to Indigenous Peoples, and will incorporate the following guidelines in its design and implementation: a) participatory and gender approach, b) support ongoing processes of high acceptance and focused on finding solutions to local problems, c) differentiated training for different target groups at multiple scales, and d) implement a mechanism for monitoring and evaluating the results and impact of the capacity-building initiatives.

2. The knowledge management products will be prepared in appropriate formats and in language adapted to the different audiences of the project, including authorities, technicians, and communities. A special emphasis will be placed on preparing information that includes a gender approach in the knowledge products generated by the project, which highlight the experiences of women's work and participation in the implementation of Project activities and the development of initiatives.

3. Knowledge management will also include a communication plan that focuses on sharing of lessons learned and Project experiences and knowledge gained from the Project, including through the benefits of sustainable agricultural processes, implementation of ILM strategies, forest conservation and their sustainable uses. This knowledge management will also be an integral part of the Projects M&E process.

Output	Activities	
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Output 3.1.1: Experiences, best practices, and lessons learned captured, exchanged, and made available through multi-stakeholder forums and various platforms to support use in forest reserves and production lands in the MGL and in landscapes elsewhere in Belize	<ul style="list-style-type: none"> ? Systematize and disseminate best practices, and lessons learned about sustainable traditional production practices with Indigenous communities, biodiversity conservation and integrated land management in production landscapes both within forest reserves and community zones to make these available in other production landscapes in the Toledo District and Belize ? Multi-stakeholder forums, community presentations, and discussion groups to support information exchanges and gathering lessons learned ? Peer to peer learning among model farmers in the MGL and farmer's exchange program with farmers from northern and western Belize ? Videos, social media, multimedia, radio, written and other forms of information exchange ? Annual YCT Farmers Expo ? Lessons learned and best practices will be compiled, collated, and packaged into several formats (e.g., brochures and flyers, electronic forms, short videos, and impact documentaries, geared towards specifically targeted groups and audiences, using community groups and/or NGOs to assist in capturing lessons learned and best practices 	
Output 3.1.2: Project knowledge and lessons learned are systematized and monitored to support Project adaptive management.	<ul style="list-style-type: none"> ? Systemize knowledge gained throughout the execution of Project activities at the Project management level, stakeholder engagement level, and implementation level to gather lessons learned from Project activities. ? Thorough monitoring of the Gender Action Plan throughout Project implementation and through the support of a Gender Specialist, best practices and lessons learned on gender mainstreaming and gender responsive actions will be documented and shared. ? As with the GAP, the monitoring of the Indigenous Peoples Plan throughout the Project's implementation and through the support of a National IP Specialist, best practices and lessons learned will be documented and shared. 	

[1] http://www.fao.org/fileadmin/user_upload/capacity_building/KM_Strategy.pdf

9. Monitoring and Evaluation

Describe the budgeted M and E plan

1. The Project Coordinating Unit will be responsible for monitoring Project performance as outlined in the Strategic Results Framework (Annex 1), which will include monitoring of the Project's indicators (baseline and target), work plans, procurement plans and annual budgets. Monitoring and evaluation activities will follow FAO and GEF monitoring and evaluation policies and guidelines. The monitoring and evaluation system will also facilitate learning and replication of project results and lessons in relation to the management of protected areas and natural resources. During project inception an M&E expert will provide support in developing a detailed M&E plan for each Project indicator, ensuring timely and appropriate data is gathered for ongoing Project reporting. FAO will be responsible for monitoring of the budget management by the Executing Partner, YCT.
2. The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.
3. Monitoring and evaluation functions and responsibilities specifically described in the monitoring and evaluation table (Table 11) will be carried out through: (i) missions to monitor and supervise the progress of the project on a day-to-day basis by the Project Coordination Unit (PIU); (ii) technical monitoring of indicators to measure improvements in biodiversity conservation and sustainable use (PCU and LTO in coordination with partners); (iii) mid-term review and final evaluation (independent consultants); and (v) monitoring and supervision missions (FAO).
4. With the commencement of Project Implementation, the PCU will develop a system to monitor the progress of the project. This system will include participatory and gender inclusive mechanisms to support the monitoring and evaluation of performance indicators (as outlined in the Projects Strategic Results Framework, Annex 1) and Project outputs. The inception workshop will include outlining the monitoring and evaluation framework, including a presentation of the project's Strategic Results Framework with project stakeholders which will also entail a review of the monitoring and evaluation indicators and their baselines as well as an explanation of the division of responsibilities and action for their monitoring and evaluation. The PC with the PCU will prepare a monitoring and evaluation matrix (M&E matrix) that will be implemented during the execution of the project with timeframes and means of verification for monitoring the achievement of the Project indicators.

Table 11. Monitoring and evaluation table

<i>M&E Activity Type</i>	<i>Performed by</i>	<i>Budget US\$*</i>	<i>Timing</i>
Inception Workshop	Project Coordinator, FAO Regional Office/LTO, FAO-GEF	USD 3,000	Within three months of project document signature
Inception Report	Project Executing Partner (YCT), FAO LTO (review)	None	Within two weeks of inception workshop
Impact monitoring ?on the ground?	National Project Coordinator, M&E Specialist, Gender Specialist, IP Specialist, project partners, local organizations	PCU time	Continuous

<i>M&E Activity Type</i>	<i>Performed by</i>	<i>Budget US\$*</i>	<i>Timing</i>
Annual Plan of Operations (APO) and budget based on outcomes (AWP/B)	PCU in consultation with the LTO	PCU time	Within one month of project inception and then annually, covering the reporting period (January to December).
Updated SRF information	PCU in consultation with the LTO	PCU time	Beginning of each project year
Monitoring visits and assessment of progress in PPR and PIR	PCU, FAO-Jamaica/Belize/LTO	FAO field visits under GEF Agency's fees (others from the project travel budget, as required) Project coordination visits will be borne by the project travel budget	Annual
Project Progress Reports (PPR)	PCU, BH, LTO (review), with contributions from stakeholders and other participating institutions	PCU time	Biannual. To coincide with reporting from Executing Partner/YCT. Combined reports submitted within 1 month of end of progress reporting period (January-June and July-December).
Biannual review of implementation of GAP, SEP, and IPP, included into PPR	PCU, Ministry of Sustainable Development, Gender Specialist, IP Specialist, M&E Specialist	Project operating expenses.	Bi-annual
Annual Project Execution Review Reports (PIR)	Drafted by the PC, under supervision by the LTO and BH. Approved and submitted to GEF by the FAO-GEF Coordination Unit	FAO staff time is funded by GEF agency fees. PCU time covered by the project budget.	August 1 of each reference year.
Meetings: National Steering Committee and Project Management Committee	BH, CTA-B with contributions from other co-financiers	Annual or more	--

<i>M&E Activity Type</i>	<i>Performed by</i>	<i>Budget US\$*</i>	<i>Timing</i>
Co-financing reports	PCU, FAO (LTO, FAO-Barbados)	PCU time	Annual, together with PIR
Technical reports	External Consultants, Project partners, and/or YCT, consultations with the project team, including the LTO, FAO-GEF Unit and others.	As required	PCU time covered by the project budget.
GEF Tracking Tools (METT)	PCU, YCT	PCU time	Project's mid- and terminal points.
Mid-term Review (Decentralized evaluation under BH responsibility)	BH, External Consultant, in consultation with the PMU, including the GEF Coordination Unit and other stakeholders, and with possible support from FAO Independent Evaluation Unit OED	GEF: USD30,000	Midway through project implementation
Terminal Independent Evaluation (including Terminal Report) (Decentralized evaluation, under Regional Office responsibility)	The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED.	GEF: USD 40,000 for Terminal Evaluation and USD 6,550 for Terminal Report	At least six months prior to project completion
Terminal Workshop	? PCU (with support from FAO LTO, FAO-GEF)	GEF: USD 3,000	Two months prior to project completion
Total M&E Budget		GEF	82,550

9.1 Reporting

5. A series of reports will be prepared as part of the monitoring and evaluation programme:
6. **Project Inception Workshop.** The Project Inception Workshop will take place within 3 months of signing of the Project Document, followed closely by an Inception Report developed by the Project Coordinator, in consultation with PSC and the LTO. The workshop is intended to:
 - i) Re-orient project stakeholders to the project strategy.
 - ii) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms.
 - iii) Review the results framework and finalize the indicators, means of verification and monitoring plan.

- iv) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF Operational Focal Point in M&E.
- v) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; SESP, Environmental and Social Management Plan and other safeguard requirements; project grievance mechanisms; the gender strategy; the knowledge management strategy, and other relevant strategies.
- vi) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
- vii) Plan and schedule Project Board meetings and finalize the first-year annual work plan.

7. The **Project Inception Report** will outline progress made in the Project, establishment of managing and monitoring systems, and start-up activities, as well as an update of any changes in external conditions that may affect the execution of the project. It will also include a detailed annual work plan and budget for Year 1 and the M&E matrix, as indicated above that incorporates the components of the M&E plan outlined below, with information to be gathered, means of verification and the reporting detailed in this section. The draft Inception Report will be distributed to FAO and PSC for their review and comments prior to completion, no later than three months after the start of the project. The report must be approved by the BH, the LTO and the FAO-GEF Coordination Unit.

8. **Annual Work Plan and Budget.** The PC will present to the PSC a draft annual work plan and budget no later than December 10 of each year. This should include the detailed activities to be executed monthly for each output and outcome and the dates in which the targets and milestones of the outputs and outcomes will be achieved throughout the year. A detailed budget of the project activities to be carried out during the year will also be included, along with all necessary monitoring and supervision activities during the year. The AWPB will be distributed and reviewed by Min of Sustainable Development, FAO, PSC, PCU, and the final AWPB will be sent to PSC for approval and to FAO for final no objection.

9. **Project Progress Reports (PPR).** PPRs are used to identify limitations, problems, or bottlenecks that prevent timely implementation, and to take appropriate corrective action. The PPRs will be prepared based on the systematic monitoring of the output and outcome indicators identified in the Project Results Framework (Annex A1), the Annual Work Plan and Budget, and the Monitoring Plan. The Project Coordinator will prepare a draft PPR for comment, including FAP, LTO and will present the final PPRs to the FAO LTO every six months, before July 10 (covering the period between January and June) and before December 15 (covering the period between July and December). The report covering the July-December period must be accompanied by the updated Annual Work Plan and Budget for the following year for its review and no objection by FAO. The BH is responsible for coordinating the preparation and finalization of the PPR, in consultation with the Project Implementation Unit, LTO, and Funding Liaison Officer (FLO). Following the approval of the LTO, BH, and FLO, the FLO will ensure that project progress reports are uploaded to FPMIS.

10. The Project's Executing Partner, under contract with FAO, has the responsibility to ensure all commitments outlined within the Project Document and within the signed LoA are fulfilled. This includes commitments under this M&E Plan. Bi-annual PPR as part of this M&E Plan (M&E PPR) will incorporate the LoA bi-annual Progress Reports and will be submitted as one report to the PSC and LTO. This report must be presented as an M&E PPR and contain all requirements of the M&E PPR, with any additional information required as part of the LoA Progress Report to be clearly identified within the M&E PPR.

11. **Annual Project Implementation Review (PIR).** The Project Coordinator, under the supervision of the LTO and the BH and in coordination with the national partners of the project, will prepare a draft PIR corresponding to the period of July (of the previous year) and June (current year) for the year of implementation, to be completed no later than 15 June of each year. The Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The LTO will finalize the PIR and submit it to the FAO-GEF Coordination Unit for review by July 2. The FAO-GEF Coordination Unit, the LTO and the BH will discuss the PIR and qualifications. The LTO is responsible for conducting the final review of the PIR and providing technical approval. The BH will present the final version of the PIR to the FAO-GEF Coordination Unit for final approval. The FAO-GEF Coordination Unit will present the PIR to the GEF Secretariat and the GEF Independent Evaluation Office as part of the Annual Monitoring Review of the FAO-GEF portfolio.

12. **Technical reports.** The technical reports will be prepared as part of the project outputs and will serve to document and disseminate the lessons learned. The Project Coordinator must present the drafts of all technical reports to the PSC and the LTO for their review and approval and with the FAO-GEF Coordination Unit for their information and eventual comments, before finalization and publication. Copies of the technical reports will be distributed to PSC and other project stakeholders, as appropriate.

13. **Co-financing reports.** The CTA will be responsible for compiling the necessary information on the co-financing in kind and in cash provided by all the co-financiers of the project, including those included in this Project Document, and any new co-financing. The Project Coordinator will present these reports to the LTO before June 15 of each year, covering the period from July of the previous year to June of the year of the Report. This information will be also included in the PIRs.

14. **GEF Core Indicator Worksheet.** In compliance with GEF policies and procedures, the GEF Core Indicator Worksheet will be sent to the GEF Secretariat at three times: (i) together with the Project Document for approval by the GEF Executive Director; (ii) together with the mid-term review of the project; and (iii) together with the final evaluation of the project. It will be filled out by the CTA of the project. The baseline/CEO Endorsement GEF-7 Core Indicators (Annex B of this Project Document) will be updated by the Project Coordinator/PCU (not the evaluation consultants hired to undertake the MTR or the TE) and shared with the mid-term review consultants and terminal evaluation consultants before the required review/evaluation missions take place.

15. **Terminal report.** Within two months prior to the project completion date, the CTA will present a draft Terminal Report to the PSC and the FAO Representation in Ecuador. The main purpose of the Terminal Report is to offer guidance at the authority level on the policy decisions necessary to monitor the Project and present the donor with information on the use of funds. Therefore, the Terminal Report will consist of a brief summary of the main products, results, conclusions, and recommendations of the Project. The report will be aimed at people who are not necessarily technical specialists and who must understand the policy implications of the findings and technical needs to ensure the sustainability of the project results. The Terminal Report will evaluate the activities, summarize the lessons, and express the recommendations in terms of their application to conservation and sustainable use of biodiversity in the intervention areas, in the context of development priorities at the national and provincial levels, as well as in terms of practical application. This report will specifically include the findings of the final evaluation. An evaluation meeting of the project should be held in order to discuss the draft Terminal Report with the PSC before its completion by the CTA of the Project and its approval by the BH, LTO and the FAO-GEF Coordination Unit.

MTR and Evaluation provisions

Mid-Term Reviews (MTRs)

16. As outlined in the GEF Evaluation Policy, or mid-term evaluations (MTEs) are mandatory for all GEF-financed full-sized projects (FSPs), including Enabling Activities processed as full-sized projects. It is also strongly encouraged for medium-sized projects (MSPs). The Mid-Term review will (i) assess the progress made towards achievement of planned results (ii) identify problems and make recommendations to redress the project (iii) highlight good practices, lessons learned and areas with the potential for upscaling.

17. The Budget Holder is responsible for the conduct of the Mid-Term Review (MTR) of the project in consultation with the FAO-GEF Coordination Unit halfway through implementation. He/she will contact the FAO-GEF Coordination Unit about 3 months before the project half-point (within 3 years of project CEO Endorsement) to initiate the MTR exercise.

18. To support the planning and conduct of the MTR, the FAO GEF CU has developed a guidance document 'The Guide for planning and conducting Mid-Term Reviews of FAO-GEF projects and programmes'. The FAO-GEF CU will appoint an MTR focal point who will provide guidance on GEF specific requirements, quality assurance on the review process and overall backstopping support for the effective management of the exercise and for timely the submission of the MTR report to the GEF Secretariat.

19. After the completion of the Mid-Term Review, the BH will be responsible for the distribution of the MTR report at country level (including to the GEF OFP) and for the preparation of the Management Response within 4 weeks and share it with national partners, GEF OFP and the FAO-GEF CU. The BH will also send the updated core indicators used during the MTR to the FAO-GEF CU for their submission to the GEF Secretariat.

Terminal Evaluation

20. The GEF evaluation policy foresees that all Medium and Full-sized projects require a separate terminal evaluation. Such evaluation provides: i) accountability on results, processes, and performance ii) recommendations to improve the sustainability of the results achieved and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

21. The Budget Holder will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project taking into account the 'GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects'. FAO Office of Evaluation (OED) will provide technical assistance throughout the evaluation process, via the OED Decentralized Evaluation Support team. In particular, it will also give quality assurance feedback on selection of the external evaluators, Terms of Reference of the evaluation,

draft, and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

22. After the completion of the terminal evaluation, the BH will be responsible to prepare the management response to the evaluation within 4 weeks and share it with national partners, GEF OFP, OED and the FAO-GEF CU. The BH will also send the updated core indicators used during the TE to the FAO-GEF CU for their submission to the GEF Secretariat.

Disclosure

23. The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCE/SCCF)?

1. The proposed project will contribute several environmental (including Global Environmental Benefits), social, and economic benefits from biodiversity-friendly sustainable agricultural practices and integrated land management in the MGL's forest reserves and Community Zones, as well as environmental benefits throughout the MGL. This Project will benefit the Mayan communities within the MGL and with the Government of Belize, the Project's primary beneficiaries. 60,106 ha of landscape will be under improved management in 3 priority PAs, of which 13,568 ha are KBA). A further 34,893 ha of community zone will be under improved land management, with diagnostic information supporting integrated land management and/or sustainable production practices with BD supported. Benefits will also include improved biodiversity conservation through habitat management, with enhanced biodiversity data collection and monitoring to inform management, particularly of threatened species, including species monitoring programmes for IUCN Red-listed threatened species such as EN Geoffrey's spider monkey *Ateles geoffroyi* and VU White-lipped Peccary *Tayassu pecari*.

2. Project direct beneficiaries include a total of 1176 residents living in the 10 communities in the Community Zones, all Mayan Indigenous People, of which 50% are women. In addition, 12 GoB personnel from the MSDCCDRM, MAFDE and MHDFIPA are beneficiaries of technical equipment and strengthened capacities, and 2 members of YCT, the co-managers of the Project's priority intervention sites within the MGL that support biodiversity conservation and sustainable production within the MGL. Total direct beneficiaries incorporates 196 producers, sustainable agricultural value-added producers and agricultural co-op/ association participants from these communities.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification *

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

1. **Identification of environmental and social risks.** The project's environmental and social risks are moderate. Interventions for all PAs in the MGL will take place through landscape level data gathering (biodiversity, satellite image classification of forest cover, annual monitoring of land use cover and land use change). Priority areas for intervention are the: Maya Mountain North Forest Reserve, a multi-use protected area (per Forest Act 2017) within the MGL; GSCP, a private protected area that supports limited and sustainable NTFP extraction; and Bladen Nature Reserve, a highly protected site for which the project will only collect biodiversity data and land cover change. The project's positive impacts will surpass its negative impacts, as the project will put considerable emphasis on the protection of natural resources and biodiversity. The project will reduce deforestation and biodiversity loss, while supporting livelihoods through sustainable and biodiversity friendly agricultural production practices of Indigenous community members.

2. In line with the FAO Environmental and Social Management Guidelines (ESMG), the implementing agency has conducted an Environmental and Social Safeguards (ESS) screening at PIF stage.

3. Table 9 below summarizes the environmental and social risks identified in relation to the proposed project:

Table 9. Environmental and Social Risks

Environmental and Social Safeguard (ESS) triggered	Potential (negative) impacts	Mitigation actions	Follow-up indicators	Progress in mitigation actions

<p>ESS 1. Biodiversity conservation, and sustainable management of natural resources</p> <p>This project will be implemented within a legally designated protected area or its buffer zone.</p> <p>Risk Classification: Moderate</p>	<p>The PAs fauna and flora will be disturbed in areas of sustainable production.</p>	<p>The project aims to reduce forest loss in protected areas and support biodiversity conservation within PAs of the MGL and proposes to strengthen the capacity of Indigenous communities to promote sustainable agricultural production and biodiversity conservation to reduce forest loss in PAs (in addition to community zones) in the MGL.</p> <p>The Project will support the development of integrated forest reserve management planning along with management rules for the MMNFR. This will include a zoning plan to support forest conservation that also includes identification of areas for sustainable production (areas identified based on degraded and vulnerability to incursion). No new production areas within forest reserves or any PA will be implemented as part of this project, only implementation support will be provided to the existing legal sustainable agroforestry concession for livelihoods and conservation that is currently under production in the MMNFR forest reserve.</p> <p>The proposed actions will help to improve the livelihoods of local people, while reducing the pressure on biodiversity.</p> <p>Management rules for the MMNFR (multi-use per Forest Act 2017), will ensure that livelihoods will be supported through sustainable and biodiversity supported agricultural production (i.e., organic agroforestry, sustainable NTFP extraction based on use assessment and sustainability plans) within</p>	<p>60,106 ha of improved PA management effectiveness.</p>	
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<p>EES 8. Indigenous peoples and cultural heritage</p> <p>There Indigenous peoples living in the project area where activities will take place?</p> <p>Risk Classification: Moderate</p>	<p>The programme could lead to changes in the traditional livelihoods of Indigenous peoples.</p>	<p>The majority of Project beneficiaries are Indigenous peoples. In accordance with FAO directives, a Free Prior and Informed Consent (FPIC) process will be carried out with the communities with which the Project is engaging, and Phase 1 of this process was initiated through consultations carried out through the Project preparation phase. Plans and actions will adhere strictly to the process of Free, Prior and Informed Consent, developed with the Maya Indigenous People in Project interventions communities, in coordination with the Maya Leaders Alliance and Toledo Alcaldes Association. An Indigenous Peoples Plan (IPP) was developed during Project preparation, and will be reviewed, adapted, and validated as the FPIC process continues.</p> <p>A grievance redress mechanism has been incorporated into the Project Document that parties involved have access to fair, transparent, inclusive, and no-cost processes and mechanisms to redress grievances and resolve conflict.</p>	<p>FPIC Process completed for the 10 communities and signed approval of relevant Project activities received from the Maya Leaders Alliance and Toledo Alcaldes Association</p>
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4. The following instruments and measures have been identified for the mitigation of environmental and social risks; (1) define conservation zones for the MMNFR, according to biodiversity and forest information; (2) map forest cover (either for conservation and to monitor land cover / land use), intended to facilitate identification of areas of forest incursion and areas for conservation action; (3) strengthen governance to support sustainable production activities in forest reserves; (4) include the management of threatened and endemic species in the MMNFR management plan and management rules, indicating follow-up activities for their protection; and (5) increased

biodiversity data gathering to support conservation decision making within all MGLs PAs and on a landscape scale, including broad spatial planning for the MGL.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Belize MGL ESS Screening Checklist	Project PIF ESS	
Risk Certification Belize MGL	Project PIF ESS	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Objective: To mainstream biodiversity in the Maya Golden Landscape's key biodiversity areas (KBAs).						
Component 1. Integrating conservation and production planning in KBAs						
Outcome 1.1 Forest reserve in KBA conserves biodiversity and promotes sustainable production through ILM.	<u>Project Indicator 1 (GEF Core Indicator 1):</u> Area (hectares) of landscapes under improved practices (Project 3 priority protected areas) and ha of KBAs	0 0	12,021 (of which 4,522 ha is a KBA)	60,106 (of which 13,568 ha is a KBA)	Project Implementaion Review (PIR), annual Mid-term Review and Terminal Evaluation Updated GEF 7 Core Indicator	There is ongoing interest on the part of national government and Indigenous communities in supporting biodiversity, forest conservation, and sustianable production practices for integrated land managemnt in forest reserves, FR concessions, and forest and biodiversity conservation in protected areas.
	<u>Project Indicator 2 (GEF Core Indicator 6):</u> Avoided emissions (tCO ₂ -e) over a 4-year Project period (includes 3 priority PAs and 10 communities in Community Zones)	Annual reference level at X tCO ₂ -e	1,712,404 tCO ₂ eq (avoided / eliminated deforestation over a 2-year period)	6,849,616 tCO ₂ eq (avoided / eliminated over a 4-year period)	Updated GEF7 Core Indicator 6 (using FAO Exact Tool)	

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Output 1.1.1. Gender-inclusive & culturally sensitive ILM action plans developed for select forest reserve	<u>Project Indicator 3 (GEF Core Indicator 1.2):</u> Terrestrial protected areas under improved management effectiveness, as measured by the GEF Management Effectiveness Tracking Tool (METT) over 61,169 ha (Target): i) Maya Mountain North Forest Reserve (14,764 ha) METT ii) Golden Stream Corridor Preserve (6,070 ha) METT iii) Bladen Nature Reserve (40,335 ha) METT	i) 61 ii) 74 iii) 70	i) 66 ii) 74 iii) 71	i) 85 ii) 86 iii) 85	GEF Protected Area Management Effectiveness Tracking Tool (METT) Executing partner reports (Ya'axche Conservation Trust) Project Implementaion Review (PIR), annual GEF Mid-term review (MTR) and Terminal Evaluation (TE)	There is ongoing interest on the part of national government and Indigenous communities in supporting BD and sustianable production practices for integrated land management
	<u>Project Indicator 4:</u> Integrated Land Management Plan developed for the MMNFR with spatial conservation and production targets identified, annual operational plans, submitted to the Forest Department for approval.	0 ILM Plan for MMNFR 0 Operational Plans	0 ILM plan. Expanded BD data identifies spatial conservation targets and production targets, with maps prepared. 0 Operational Plans	1 ILM plan for the MMNFR completed and submitted to FD for approval. 2 Operational Plans (for Project Yrs. 1 & 2)	ILM plan for the MMNFD, received by the FD	There is ongoing interest on the part of national government and Indigenous communities in supporting BD and sustianable production practices for integrated land management

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
	<u>Project Indicator 5</u> : Increased monitoring of biodiversity in the Project's 3 prioritized PAs, as indicated by: <ul style="list-style-type: none"> i) increase in number of sites sampled, ii) increase in frequency of sites sampled, iii) species monitoring programme for 2 IUCN threatened species Geoffrey's spider monkey <i>Ateles geoffroyi</i> (EN) and White-lipped Peccary <i>Tayassu pecari</i> (VU) developed, implemented, and incorporated into YCT monitoring programme.	No additional monitoring	<ul style="list-style-type: none"> i) Number: 10% increase in locations/monitoring sites sampled ii) Frequency: ? sites monitored at least 1 additional time/year iii) 1 IUCN listed species monitoring programmes developed and initiated 	<ul style="list-style-type: none"> i) Number: 30% increase in locations/monitoring sites sampled ii) Frequency: All sites monitored at least 1 additional time/year iii) 2 IUCN listed species monitoring programmes developed and monitoring initiated 	Technical Reports PPRs Database entries Field data reports	Importance of monitoring of IUCN listed species valued, including its contribution to conservation targets Data collection methods produce intended outputs
Output 1.1.2: New National governance structures support biodiversity-friendly non-timber forest products (NTFP) use in-forest	<u>Project Indicator 6</u> : Number of drafted governance documents to support NTFP policy and use in forest reserve concessions.	0	2 Draft of i) NTFP Policy guideline/framework and (ii) Forest Rule recommendation submitted to GoB, Forest Department for review	2 i) Forest Policy NTFP guideline/framework and (ii) Forest Rule recommendation submitted to GoB, Forest Department	NTFP guideline/framework and (ii) Forest Rule recommendation reprot	Forest Department, Government of Belize continues to support sustainable NTFP use in Forest Reserve

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
reserves	<u>Project Indicator 7:</u> Pilot NTFP use assessment for National Forest Policy framework/guidelines and Forest Rule recommendation for sustainable extraction of NTFP, using cohune palm leaf (<i>Orbignya cohune</i>) stocks in GSCP as example of use assessment.	No Pilot NTFP sustainable use assessment	Pilot NTFP use assessment for GSCP in progress, supporting the development of policy NTFP framework/guideline and Forest Rule recommendation, with sustainable yield of 1812 cohune leaves extracted.	Pilot NTFP use assessment for GSCP completed and supported the development of NTFP policy framework/guideline and Forest Rule recommendation, with increased sustainable yield of 3624 cohune leaves extracted.	GSCP NTFP Use Assessment Report	
Output 1.1.3: Community-supported monitoring system designed to support ILM conservation targets in the forest reserve	<u>Project Indicator 8:</u> Annual deforestation/forest cover loss identified based on (i) annual land use and land cover maps, and (ii) annual mapped forest fire for the MGL from satellite imagery classification with ground truthing, and data submitted annually to GoB -	Baseline land use and land cover maps developed	Maps of i) land use and forest cover loss, and ii) forest loss from forest fires Maps sent to GoB Maps sent for inclusion in Annual GoB Land Use/Land Cover Report and State of Protected Area Annual Report	3 (annual) maps of i) land use and forest cover loss, and ii) forest loss from forest fires Maps sent to GoB Maps sent for inclusion in Annual GoB Land Use/Land Cover Report and State of Protected Area Annual Report	Dataset in YCT GIS dataset Maps produced and distributed	Continued interest in deforestation in PAs by Government of Belize and the Indigenous communities.

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
	<u>Project Indicator 9</u> : Percent land cleared for cultivation and agricultural incursion in MMNFR, as measured by forest loss analysis from satellite imagery.	0.22% (2019) To be determined Project Yr.1	Land clearance is reduced by 2%	Land clearance is reduced by 4% over the project period	Satellite image land cover analysis, compared annually. State of the PA Reports Project Reports	
Outcome 1.2: Community zones adjacent to KBA conserve biodiversity and promote sustainable production through ILM.	<u>Project Indicator 10 (GEF Core Indicator 4)</u> : Area of landscapes under improved practices (hectares; excluding protected areas) - - - - - - -	0	12,289 ha under improved management, with diagnostic information supporting integrated land management and/or sustainable production practices, and with BD supported (= 12141 ha ILM planning, 108 ha enhanced production over 3 villages, 40 ha new agroforestry)	34,893 ha under improved management, with diagnostic information supporting integrated land management and/or sustainable production practices, and with BD supported (=33,893ha ILM planning, 900 ha enhanced production over 10 villages, 100 ha new agroforestry)	Project Implementaion Review (PIR), annual Mid-term Review and Terminal Evaluation Updated GEF 7 Core Indicator YCT reports	Communities will be interested in and value land use assessments and land strategies for management of community lands. The Indigenous communities and producers continue involvement in, and support of, sustainable production practices that support biodiversity. Forest conservation and its integration into community lands is valued.
Output 1.2.1: Community spatial, land use and resource diagnostic assessments	<u>Project Indicator 11</u> : Number of communities participating in spatial, land use planning and/or resource diagnostic assessments for production (including NTFPs, beekeeping) and forest conservation.	0	1 community requested assessments carried out	4 community requested assessments carried out.	Report of assessment results PPR/PIR YCT and field reports	

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Output 1.2.2: Gender inclusive & ethnic sensitive community ILM planning workshop series	<u>Project Indicator 12</u> : Community members and producers participate in workshop series to validate findings of assessments (<u>Project Indicator 11</u>), as measured by % of community members, disaggregated by gender	0	30 % of community members and producers participate in workshop series, of which 10 % are women	60 % of community members and producers participate in workshop series, of which 30 % are women	Report of assessment results PPR/PIR YCT and field reports Workshop sign-in sheets	Community member will attend and support validation Indigenous Authorities and Community Elders support activities, as indicated by the community consultations and FPIC process.
Output 1.2.3: Community ILM strategy developed and endorsed	<u>Project Indicator 13</u> : ILM plan and/or zoning strategy developed, prioritizing Indigenous community request	0	1	3	Report, ILM plan/zoning strategy developed PPR/PIR YCT and field reports	
Component 2. Strengthening Indigenous Peoples and local communities? production systems to deliver positive impacts on biodiversity in KBAs						
Outcome 2.1: Indigenous Peoples and local communities implement biodiversity-positive production practices in forest reserves	<u>Project Indicator 14</u> : Area (hectares) of landscapes under improved practices of sustainable production that supports biodiversity in forest reserve concessions	0 ha	150 ha	368 ha		

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Output 2.1.1: Support to Indigenous Peoples and local communities in acquiring NTFP concessionary rights in forest reserves.	<u>Project Indicator 15:</u> Administrative and procedural tasks associated with acquiring a concession for NTFP use in forest reserves (based on agroforestry concession for MMNFR) detailed and supports enabling environment for acquisition of NTFP concession for livelihoods and conservation.	No administrative and procedural tasks in place for acquiring an NTFP concession for forest reserves.	Administrative and procedural tasks in place for acquiring an NTFP concession for forest reserves drafted and submitted to Forest Department for approval and use, with outreach materials for Indigenous community producers drafted.	Final version of administrative and procedural tasks for acquiring an NTFP concession for forest reserves, with feedback incorporated, submitted to Forest Department along with finalized outreach materials.	Report submitted to the Forest Dept and other relevant departments of the Government of Belize.	Indigenous producers in communities find NTFP use and its value-added production beneficial and profitable and are interested in pursuing an NTFP concession in forest reserves.
Output 2.1.2: Implementation of biodiversity positive production practices in line with forest reserve concessions .	<u>Project Indicator 16:</u> Number of farmers and value-added producers from the Indigenous community members receive training and site implementation support (modules, FFS, farmer exchange, on-site tech assistance) for biodiversity-friendly sustainable production practices in Forest Reserves (agroforestry, beekeeping, NTFPs), disaggregated by gender.	No additional training	12 (10%)	31 (10%)	Participant Lists Programme of scaled-up training programme Content of training modules delivered FFS curriculum Photographs, reports, social media	There is ongoing interest on the producers in Indigenous communities and Indigenous Peoples Authorities and Community Elders in the communities in supporting BD and sustainable production practices for integrated

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Outcome 2.2: Indigenous Peoples and local communities implement biodiversity-positive production practices in community zones, to support income generating opportunities for both men and women	<u>Project Indicator 17 (contributing to GEF Core Indicator 4):</u> Improved sustainable production practices that benefits biodiversity on: i) Area of landscape (ha) of new agroforestry farmland (10 community model farms @ 10 ha each) ii) Area of landscape (ha) existing production farmland.	0	i) 30 ha ii) 270 ha	i) 100 ha ii) 900 ha	PPR/PIR Updated GEF 7 Core Indicator Field Reports MTR	The Indigenous communities and producers continue involvement in, and support of, sustainable production practices that support biodiversity. Forest conservation and its integration into community lands is valued.
	<u>Project Indicator 19 (GEF Core Indicator 11):</u> Number of direct beneficiaries (in 10 communities) disaggregated by gender as co-benefit of GEF investment	0	294 (50% women)	1190 (50% women) from 196 families family in 10 communities (average family size = 6) + 12 government officials +2 YCT Staff	PPR/PIR/Updated GEF 7 Core Indicator Participant Lists Photographs, reports, social media	Indigenous Authorities and Community Elders support activities, as indicated by the FPIC process.

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Output 2.2.1: Culturally sensitive and gender responsive trainings and technical implementation support delivered to Indigenous Peoples and local communities promoting biodiversity-positive farming and forest habitat conservation on community lands.	<p><u>Project Indicator 20 (contributes to GEF7 Core Indicator 11):</u> Number of persons having received training and/or site implementation support (modules, FFS, farmer exchange, on-site tech assistance) in culturally sensitive best practices for biodiversity supported sustainable production, value added production, and planning in community zones (disaggregated by gender)</p> <p>(i) Indigenous community members (inga alley cropping, agroforestry, beekeeping, NTFPs: xx (% women) (ii) Beekeepers (% women) (iii) GoB staff: xx (% women) (iv) YCT staff: xx (% women)</p>	No additional training	<p>Total =</p> <p>i) 357 (% women) ii) 10 (30% women) iii) 5 (x % women) (iv) 2 (50% women) -</p>	<p>Total =</p> <p>i) 1176 (% women) ii) 35 (30% women) iii) 12 (x % women) (iv) 2 (50% women)</p>	<p>Participant Lists</p> <p>Programme of scaled-up training programme</p> <p>Content of training modules delivered</p> <p>FFS curriculum</p> <p>Photographs, reports, social media</p>	There is ongoing interest on the producers in Indigenous communities and Indigenous Peoples Authorities and Community Elders in the communities in supporting BD and sustainable production practices for integrated

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Output 2.2.2: Strengthened market linkages through action-learning processes between small scale farmers (specifically targeting women, youth, Indigenous Peoples, and local communities) and local and regional markets, to support conservation through biodiversity-friendly production practices.	<u>Project Indicator 19:</u> Pilot Cacao agroforestry fermenting, drying, and processing production in place, using 10% of wet cacao beans from the MMNFR agroforestry concession, with value-chain analysis identifying value-added benefits and marketing opportunities.	0	Cacao processing training initiated, 4% of wet cacao from processed with quality control measures in place. Value chain analysis in progress.	Cacao processing of 10% of annual wet cacao, quality control in place with external verification. Value chain analysis completed with 1 market opportunity identified.	YCT reporting PPR PIR	Agroforestry cacao producers continued interest in processing wet cacao.
Component 3. Knowledge Sharing and Project M&E						
Outcome 3.1: Project knowledge is managed, systematized, and disseminated.	<u>Indicator 20:</u> Knowledge Management Strategy developed and approved by the PSC	0	Knowledge Management Strategy approved by the end of Yr. 1, with implementation initiated by the 1 st quarter of Yr2.	Knowledge management strategy approved by PSC	PSC reports, PPRs and PIRs indicate approval and initiation of implementation according to mid-term and final targets.	Continued interest in developing project knowledge management.

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
<u>Output 3.1.1</u> Experiences, best practices, and lessons learned, captured, exchanged, and made available through multi-stakeholder forums and various platforms to support forest reserves and production lands in the MGL and in landscapes elsewhere in Belize	<u>Project Indicator 21</u> : Number of forums, media platforms and documents on successful farmers' and community experiences, lessons learned, Indigenous Technical Knowledge, and best practices from biodiversity supported sustainable production practices, land use planning, integration of gender mainstreaming, others. are disseminated in the MGL Belize and internationally.	0	5	10	Publications, photographic records, press releases, social media. Exchange visit reports, PPR, PIR.	Continued interest in developing project knowledge management and perceived value of dissemination of knowledge to benefit future action
<u>Output 3.1.2</u> : Proposed Project knowledge and lessons learned are systematized and monitored to support Project adaptive management.	<u>Project Indicator 22</u> : Number of social media accounts from model farms and farmer exchanges and case study reports developed to systematize lessons learned	0	3	10	Social media videos/reports Written case study accounts YCT Farmer expo pamphlets	Continued interest in developing project knowledge management and the value of lessons learned to improve current and future efforts for biodiversity friendly sustainable production practices and ILM.

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions
Outcome 3.2: Monitoring & Evaluation strategy informs the project for management and decision-making.	Project Indicator 23: Project M&E strategy defined and operational, including project results framework with results and output indicators, baseline, and project targets and GEBs monitored and evaluated, including the Gender Action Plan and the Indigenous Peoples plan.	None	Monitoring system is defined in Yr 1 and operational in Yr 2, informing PIR and Mid-term Review.	Monitoring system is in operation providing information to PPRs, PIR and Final Evaluation Report	Mid-term and Terminal evaluation report Strategic Results Framework indicators updated Field Reports PIRs/PPRs	The results of the Mid-Term Review and the Final Evaluation are used to review the progress of the project and define corrective actions to achieve the results and objective. Continued interest in and support for the monitoring and evaluation of the Projects objectives, outputs, and Project results. M&E system designed for the project, including the monitoring of activities, the mechanisms for verifying compliance with the indicators of results and products, and responsibilities for M&E, deadlines, and budgets.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status in the table below:**

PPG Grant Approved at PIF:			
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
International Consultant ? Project Design Expert	35,000	27,738	7,262
Contracts ? Project Baseline (socioeconomic and Indigenous peoples), Stakeholder consultations	12,620	0	12,620
Salaries Professional	2,380	0	2,380
Total	50,000	27,738	22,262

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

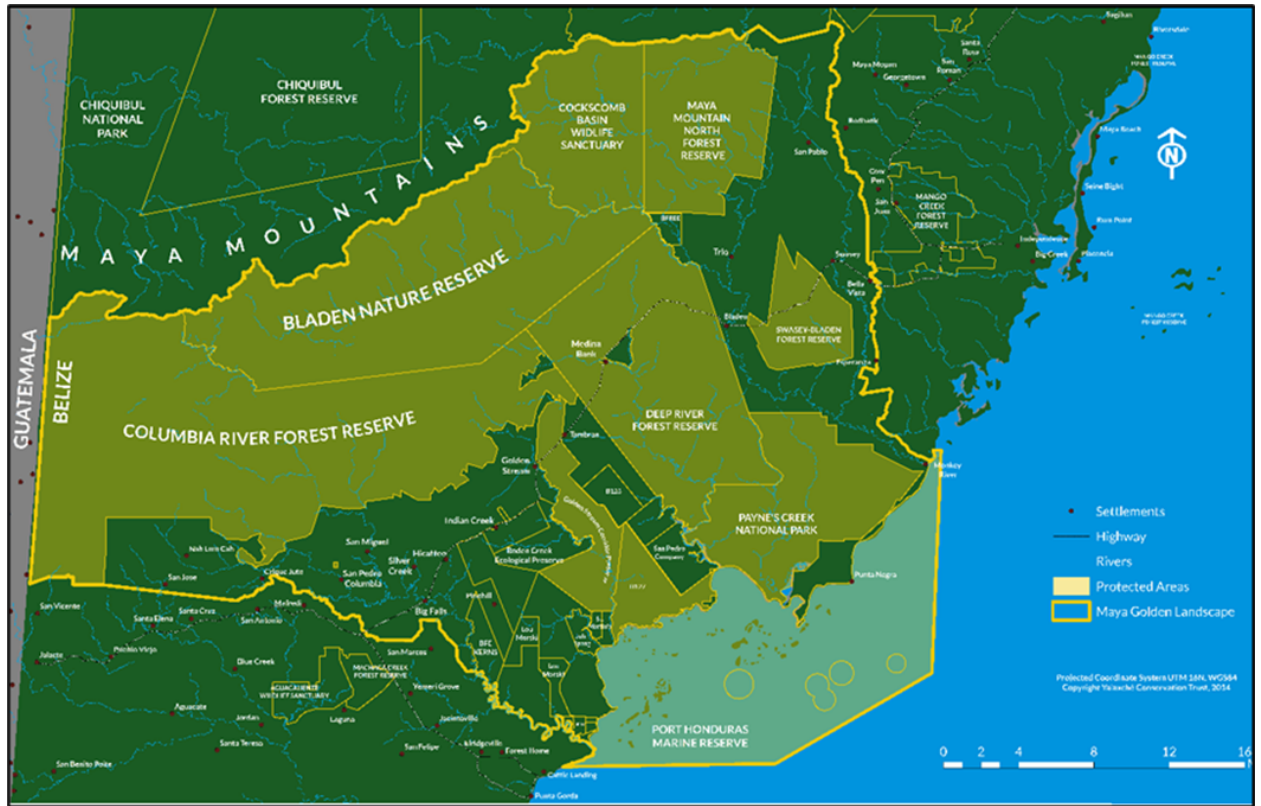


Figure 12. Detailed Map of Protected Areas and Community Zones ? Maya Golden Landscape.

Source: Ya?axch? Conservation Trust, 2019

The Project will intervene in the 311,610 ha Maya Golden Landscape (MGL) that covers approximately 67% of southern Belize's Toledo district (Figure 12). The center (approximate) of the MGL has the following coordinates: 16°12'56.62"N, 88°54'27.74"W.

3 Priority Intervention Areas in PAs	Projected Coordinates (approx.)
Maya Mountain North Forest Reserve	16°32'29.8"N 88°38'50.6"W
Golden Stream Corridor Preserve	16°18'03.2"N 88°49'04.9"W
Bladen Nature Reserve	16°29'07.5"N 88°36'12.3"W

10 Communities for Project Intervention in Community Zone	
Big Falls/ Hicattee	16°16'14.8"N 88°53'03.1"W
Bladen	16°28'25.5"N 88°37'52.5"W
Golden Stream/ Tambran	16°20'50.2"N 88°47'26.0"W
Indian Creek	16°19'07.0"N 88°48'56.3"W
Medina Bank	16°26'38.8"N 88°43'43.5"W
San Jose	16°16'03.1"N 89°06'08.3"W
San Miguel	16°17'30.9"N 88°56'29.8"W
Silver Creek	16°16'48.7"N 88°53'30.2"W

Trio	16°31'11.4"N 88°38'12.3"W
Aguacate	15°52'20.7"N 89°05'35.6"W

ANNEX E: Project Budget Table

Please attach a project budget table.

FAO Cost Categories	Unit	No. Units	Unit Cost	C1	C2	C3	Subtotal	M&E	PMC	T
				Total	Total	Total				
5013 Consultants										
National consultants										
4 Forest Rangers (full time @ 4500/yr)	Months	48	1,500	36,000	36,000	0	72,000	0	0	
2 Extension Officers (full-time @ 5400/yr)	Months	48	900	21,600	21,600	0	43,200	0	0	
Farm Manager (full-time)	Months	48	750	18,000	18,000	0	36,000	0	0	
Temp Labour/Per-diem	Lumpsum	1	14,000	7,000	7,000	0	14,000	0	0	
Protected Area / Biodiveristy Specialist to undertake the Maya Mountain North Forest Reserve Management Plan (ILM) (A.1.1.1.1, 1.1.1.2, 1.1.1.3)	Lumpsum	1	50,000	50,000	0	0	50,000	0	0	
GIS/Spatial Assessment Expert to support Spatial Analysis, spatial planning and training, including MMNFR Management Plan, LU/LC Baseline Zoning Map for MMNFR w support for annual update, MGL & Toledo District LC/LU with Spatial analysis training provided (YCT,Gob) (A.1.1.1.1, A.1.1.1.2, A.1.1.3.2, A.1.1.3.3)	Lumpsum	1	35,000	35,000	0	0	35,000	0	0	
Legal consultant to develop biodiversity-friendly non-timber forest products (NTFP) policy guidelines and Forest Rule recommendation (A.1.1.2.1, A.2.1.1.1)	Lumpsum	1	12,000	12,000	0	0	12,000	0	0	
Data Mgt Consultant to support, expanded, and operationalized YCT data management system (A.1.1.3.1)	Lumpsum	1	12,000	12,000	0	0	12,000	0	0	
20 community researchers @ 2000/each to carry out BD monitoring, analysis (A.1.1.3, A.1,3,3,5)	Lumpsum	20	2,000	20,000	20,000	0	40,000	0	0	
Pilot Cacao agroforestry fermenting, drying and processing consultant (advisory, quality control, operations/managemnt planning & implementation support) (A.2.2.2.3)	Lumpsum	1	5,000		5,000	0	5,000	0	0	
Value chain analysis consultant for fermented and dried cacao (A.2.2.2.4)	Lumpsum	1	6,000	0	6,000	0	6,000	0	0	
M&E Specialist	Days	25	300	0	0	7,500	7,500	0	0	
							332,700			
International consultants										
BD Endangered Species Specialist to i) develop data collection and monitoring programme for 2 IUCN listed species with implementation initiated and staff and technical support trained (A.1.1.3.4), ii) support development of expanded ongoing YCT BD Monitoring Programme for 3 PAs, integrated into BRIM (A.1.1.3.4)	Lumpsum	1	15,000	15,000			15,000	0	0	
							15,000			
5013 Sub-total consultants				226,600	113,600	7,500	347,700	0	0	
5650 Contracts										
National Project Coordinator/Gov't Liaison (incl 24,000-Exec Dir)	Months	48	1,300	0	0	0	0	0	62,400	
National Finance Officer/Administrative Assistant	Months	48	850	0	0	0	0	0	40,800	
National Indigenous People's/Community Outreach Specialist	Months	48	500	12,000	12,000	0	24,000	0	0	
Technical Advisor/Officer - Biodiversity/Conservation Specialist/Science Director	Months	48	350	8,400	8,400	0	16,800	0	0	
Technical Advisor/Officer - Sustainable Agriculture/Agroecology	Months	48	350	8,400	8,400	0	16,800	0	0	
National Communication & Knowledge Management Specialist	Months	48	300	0	0	14,400	14,400			
National Gender Specialist	Days	25	300	3,750	3,750	0	7,500	0		
National PA Management Director	Months	48	770	18,480	18,480	0	36,960	0	0	
Mid-term Evaluation	Lumpsum	1	30,000	0	0	0		30,000		
Terminal Evaluation	Lumpsum	1	40,000	0	0	0	0	40,000	0	
Terminal Report	Lumpsum	1	6,550	0	0	0	0	6,550	0	
5650 Sub-total Contracts				51,030	51,030	14,400	116,460	76,550	103,200	
5021 Travel										
Travel	Travel	48	1,200	28,800	28,800	0	57,600	0	0	
Travel Component 2 (International exchanges, Agroecological course Cuba)	Travel	1	25,000	0	25,000	0	25,000	0	0	
5021 Sub-total travel				28,800	53,800	0	82,600	0	0	
5023 Training										
Inception Workshop	Workshop	1	3,000	0	0	0	0	3,000	0	
Final Workshop	Workshop	1	3,000	0	0	0	0	3,000	0	
Local Exchanges	Training/ Site	1	18,000	0	12,000	6,000	18,000	0	0	
Workshops for Component 1 & 2, including consultations, capacity building workshops, stakeholder engagement, information exchange, lessons learned, symposium, annual YCT expo.	Lumpsum	1	40,500	13,500	13,500	13,500	40,500	0	0	
Training for Component 1 & 2	Training/ Site	1	20,000	0	20,000	0	20,000			
Community Meetings	Lumpsum	1	7,000	3,000	4,000	0	7,000			
5023 Sub-total training				16,500	49,500	19,500	85,500	6,000	0	
5024 Expendable procurement										
Technical Equipment for Component 1- (Field equipment-field computers YCT&GoB; GPS-YCT&FD; Wildlife camera traps, drones-YCT&FD, Images/GIS software)	Lumpsum	1	65,448	65,448		0	65,448	0	0	
Technical Equipment for Component 2 - Sustainable Production and deomnstration farms (Seedlings and farm goods, field supplies, Field Equipment, cacao drying a fermenting station)	Lumpsum	1	349,000	0	349,000	0	349,000			
5024 Sub-total expendable procurement				65,448	349,000	0	414,448	0	0	
6100 Non-expendable procurement										
Equipment for projec personel and project activities	Lumpsum	1	20,250	6,750	6,750	6,750	20,250			

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit a finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).