



**GEF-7 REQUEST FOR CEO ENDORSEMENT / APPROVAL
CHILD PROJECT – MSP ONE-STEP**

PROJECT TYPE: FULL-SIZED CHILD PROJECT X

TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT INFORMATION

Project Title: Enhancing jaguar corridors and strongholds through improved management and threat reduction			
Country(ies):	Belize	GEF Project ID:	10241
GEF Agency(ies):	UNDP	GEF Agency Project ID:	6397
Project Executing Entity(s):	Forest Department, Ministry of Fisheries, Forestry, the Environment and Sustainable Development	Submission Date:	December 2020
GEF Focal Area (s):	Biodiversity	Expected Implementation Start	May 2021
		Expected Completion Date	May 2024
Name of Parent Program	GEF-7 Global Wildlife Program – WB-led PFD	Parent Program ID:	10200

1. FOCAL/NON-FOCAL AREA ELEMENTS

Programming Directions	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Confirmed Co-financing
BD-1-2a	Mainstream biodiversity across sectors as well as landscapes and seascapes through Global Wildlife Program for sustainable development	GEFTF	934,404	7,300,000
BD-2-7	Address direct drivers to protect habitats and species and Improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate	GEFTF	300,000	2,784,000
Total project costs			1,234,404	10,084,000

2. PROJECT DESCRIPTION SUMMARY

Project Objective: 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						
Project Components/ Programs	Component Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
1. Conserving wildlife and habitats	TA	<p>Information and data management systems contribute to improved conservation of jaguar and other wildlife at country level, with targeted application in 177,914 ha of Sibun River watershed landscape.</p> <p>-Improved management of 135,085 ha of protected areas</p> <p>- 42,829 ha under improved practices</p> <p>-Cameras cover 730,000 ha of jaguar habitat</p> <p>-At least 80% of existing and new camera trap data incorporated into the national database</p> <p>-Three forest reserves improve their management efficiency by 6 points measured by the METT.</p> <p>The capacity of CSFI, BAS, PFB, FCD, YCT and FD to capture and manage data is improved as measured by the UNDP Capacity Development</p>	<p>1.1 A standardized and integrated national database for wildlife and human presence monitoring, with emphasis on underpinning conservation of jaguars and associated (prey) species.</p> <p>1.2 Approximately 700-900 camera traps installed, complementing, improving and extending existing installations, with an additional effective coverage of 350,000 ha.</p> <p>1.3 A model of population dynamics and movement ecology of jaguars and wide-ranging prey species based on enhanced monitoring data</p> <p>1.4 Three new management protocols and regulatory measures, including a National Jaguar and Prey Policy, Strategy and Management Plan</p> <p>1.5 Enhanced data and information systems applied to design and initiate implementation of, a landscape management plan within the c. 178,000</p>	GEF TF	461,913	3,070,000

		Scorecard.	ha target area			
2. Promoting a more wildlife-friendly economy	TA	<p>Strengthened systems for responding to jaguar–livestock conflict and for encouraging sustainable ecotourism, with targeted application in Belize’s Northeast forest landscape totaling 116,913 ha.</p> <p>-Improved management of 36,040 ha of protected areas</p> <p>- 80,873 ha under improved practices</p> <p>At least 70% of jaguar-cattle conflicts are resolved satisfactorily.</p> <p>25 tour guides and landowners contributing to national camera trap network</p>	<p>2.1 Enhanced rapid response protocol and capacities for responding to jaguar-livestock conflict developed and applied in the target landscape</p> <p>2.2 Training and outreach program for wildlife-friendly economic activities</p>	GEF TF	342,213	5,000,000
3. Combatting wildlife crime and unsustainable hunting	TA	<p>Enhanced knowledge of the current status of the jaguar / prey / game species and hunting activities in 49,475 ha of the Maya Golden Landscape informs regulations for threat reduction and sustainable population management.</p> <p>-Improved management of 15,702 ha of protected areas</p> <p>- 33,773 ha under improved practices</p> <p>- A model of hunter-prey dynamics</p>	<p>3.1 Model, based on community-level assessments, estimating sustainable game species offtake, including jaguar prey offtake by viable predator populations</p> <p>3.2 A strategy and action plan for the monitoring, sustainable management and use of game species, including a pilot sustainable hunting quota system, developed and implemented in 6 communities</p>	GEF TF	177,213	950,000

		informs policy and decision making. - Drafting notes inform amendment of Wildlife Protection Act (WPA)				
4. Coordinating and enhancing knowledge	TA	Enhanced national / transboundary / jaguar range collaboration, knowledge management and communication measured by: -At least 5 case studies documented on lessons learnt and best practices captured and shared nationally and with experts in Mexico, Guatemala and other jaguar range countries.	4.1 Knowledge capture and sharing 4.2 Reinforced national multi-stakeholder mechanism for sustained jaguar communication and coordination 4.3 Project monitored and evaluated	GEF TF	142,426	206,784
Subtotal					1,123,765	9,226,784
Project Management Cost (PMC)					110,639	857,216
Total project costs					1,234,404	10,084,000

3. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Investment Mobilized	Amount (\$)
Recipient Country Government	Ministry of Fisheries, Forestry, the Environment and Sustainable Development	In-kind	Investment mobilized	950,000 ¹

Recipient Country Government	Ministry of Fisheries, Forestry, the Environment and Sustainable Development	In-Kind	Recurrent expenditure	3,200,000
Civil Society Organization	Panthera	Grant	Investment mobilized	460,000 ²
Civil Society Organization	Panthera	In-Kind	Recurrent expenditure	420,000
Civil Society Organization	Ya'axche Conservation Trust	In-kind	Recurrent expenditure	180,000
Civil Society Organization	Wildtracks	Grant	Investment mobilized	130,000 ³
Civil Society Organization	Wildtracks	In-Kind	Recurrent expenditure	104,000
Civil Society Organization	Belize Audubon Society	Grant	Investment mobilized	150,000 ⁴
Civil Society Organization	Belize Audubon Society	In-Kind	Recurrent expenditure	190,000
Civil Society Organization	Corozal Sustainable Future Initiative	Grant	Investment mobilized	550,000 ⁵
Civil Society Organization	Corozal Sustainable Future Initiative	In-Kind	Recurrent expenditure	2,400,000
Recipient Country Government	Protected Areas Conservation Trust	Grant	Investment mobilized	940,000
Civil Society Organization	University of Belize Environmental Research Institute (ERI)	In-kind	Investment mobilized	300,000 ⁷
GEF Agency	UNDP	Grant	Investment mobilized	110,000 ⁸
Total Co-financing				10,084,000

Notes on investments mobilized

1. Supporting the overall policy and administration activities of the project, as the responsible entity for jaguars in the country. Provide on the ground support for management activities in forest reserves of component 1. Provide existing equipment in terms of camera traps.
2. Technical and expert support on jaguar and wildlife monitoring. Provide extra equipment and monitoring capacity.
3. Technical management support in terms of management planning and logistical support up north for wildlife care.

4. Management and logistical support for Southern region of component 1, and general assistance with national database as one of the main stakeholders
5. Overall support to Outcome 2
6. General grants to support activities on the basis of need
7. Support of personnel and students in terms of training and creation of management capacity throughout the project with specific emphasis on the corridor sections of component 1
8. Support to project management

4. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country Name/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b)	Total (c)=a+b
UNDP	GEF TF	Belize	Biodiversity	NA	1,234,404	111,096	1,345,500
Total GEF Resources					1,234,404	111,096	1,345,500

E. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

F. PROJECT’S TARGET CONTRIBUTIONS TO GEF 7 CORE INDICATORS

Select the relevant sub-indicator values for this project using the methodologies indicated in the Core Indicator Worksheet provided in Annex E and aggregating them in the table below. Progress in programming against these targets is updated at mid-term evaluation and at terminal evaluation. Achieved targets will be aggregated and reported any time during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCC.

Project Core Indicators		Expected at CEO Endorsement
1	Terrestrial protected areas created or under improved management for conservation and sustainable use (Hectares)	186,827
2	Marine protected areas created or under improved management for conservation and sustainable use (Hectares)	
3	Area of land restored (Hectares)	
4	Area of landscapes under improved practices (excluding protected areas)(Hectares)	157,475
5	Area of marine habitat under improved practices (excluding protected areas) (Hectares)	
	Total area under improved management (Hectares)	344,302

6	Greenhouse Gas Emissions Mitigated (metric tons of CO ₂ e)	
7	Number of shared water ecosystems (fresh or marine) under new or improved cooperative management	
8	Globally over-exploited marine fisheries moved to more sustainable levels (metric tons)	
9	Reduction , disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products (metric tons of toxic chemicals reduced)	
10	Reduction, avoidance of emissions of POPs to air from point and non-point sources (grams of toxic equivalent gTEQ)	
11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	Male – 7,720 Female – 7,393

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.

The project covers three demonstration landscapes (see Annex 2 of the UNDP ProDoc, Maps). Components 1-3 are each associated with one of these landscapes. Each landscape includes a combination of protected areas and production areas. Three of the protected areas (all under Component 1) are major foci for project activities. Most of the other protected areas will benefit more indirectly from project activities. METT analyses (see Project Document, Annex 12 of UNDP ProDoc) have been prepared and are presented for all of the PAs located within the three landscapes. The table below presents these elements, by landscape. Totals shown correspond with the core indicators shown in section I.F. below.

Component	Landscape ID	Protected areas within landscape	Area (ha) protected	Area (ha) production
1 - Conserving wildlife and habitats	Central Corridor	Sibun, Sittee River, Manatee, Monkey Bay (2), Runaway Creek, Zoo-managed property, Chiquibul	135,085	42,829
2 – Promoting a wildlife-friendly economy	Northern Biological Corridor	Northern Biological Corridor	36,040	80,873
3 – Combatting wildlife crime and unsustainable hunting	Southern Corridor	Deep River Forest Reserve, Maya Mountains Forest Reserve	15,702	33,773
		TOTALS	186,827	157,475

G. PROJECT TAXONOMY

Level 1	Level 2	Level 3	Level 4
Influencing Models	Transform policy and regulatory environments		
	Strengthen institutional capacity/decision-making		
	Convene multi-stakeholder alliances		
	Demonstrate innovative approaches		
Stakeholders	Indigenous peoples		
	Private sector	SMEs	
		Individuals/Entrepreneurs	
	Beneficiaries		
	Local Communities		
	Civil Societies	Community Based Organization	
		Non-Governmental Organization	
		Academia	
	Type of Engagement	Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	Communications	Awareness Raising	
Public Campaigns			
Behavior Change			
Capacity, Knowledge and Research	Capacity Development		
	Knowledge Generation and Exchange		
	Learning	Theory of Change	
		Adaptive Management	
		Indicators to Measure Change	
	Innovation		
	Knowledge and Learning	Knowledge Management	
		Innovation	
Capacity Development			
Learning			
Stakeholder Engagement Plan			
Gender Equality	Gender mainstreaming	Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	Gender results areas	Access and control over natural resources	
		Participation and leadership	
		Capacity development	
		Awareness raising	
Knowledge generation			
Focal Area/ Theme	Biodiversity	Protected Areas and Landscapes	Terrestrial Protected Areas
			Productive Landscapes

Level 1	Level 2	Level 3	Level 4
			Community Based Natural Resource Management
		Mainstreaming	Tourism Agriculture & Agrobiodiversity
		Species	Illegal Wildlife Trade Threatened Species Wildlife for Sustainable Development Animal Genetic Resources
		Biomens	Tropical Dry Forests
	Rio markers	Sustainable Development Goals	

PART II: PROJECT JUSTIFICATION

1a. Project Description.

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description);

Belize has long been recognised for the beauty of its natural resources. As part of the Mesoamerican biodiversity “hotspot”—the land bridge between the North and South American continents—Belize has species representation from both continents, supporting 4,784 species of flora and fauna including over 118 globally threatened species, 10 critically endangered, 30 endangered and 77 vulnerable, and an additional 62 species near threatened or of least concern (IUCN, 2016).¹ Unlike many of its larger Central American neighbours, the natural landscapes of Belize still support viable populations of large mammalian species, such as jaguars, tapirs, and white-lipped peccaries.

The country’s 22,965 km² of landmass is comprised of 14 broad ecosystem types where 61.6% remains natural and intact forest cover. The country’s primary conservation intervention, under the Convention on Biological Diversity (CBD), is through the establishment and management of protected areas. Forty per cent (40%) of the country’s forested stands are found within the country’s 103 protected area units.²

¹ Belize 5th National Report to CBD

² See Annex 12 for additional details regarding Belize’s wildlife and other biodiversity and its protected areas.



Figure 1: Jaguar corridors and conservation units

Outside of these protected areas, Belize still has ~60% forest cover, assuring an impressive amount of natural habitat for jaguars. This landscape includes three major forest blocks, the first of which is the Belizean portion of the northern forest of the Northern Biological Corridor, the second concerns the Selva Maya in the North, consisting of the Rio Bravo Management Area, Spanish Creek and Labouring Creek Jaguar Corridor Wildlife Sanctuaries, and the third concerns the Maya Mountain Massive. Here several national parks, nature reserves and Wildlife Sanctuaries, including Cockscomb Basin, are surrounded by forest reserves, which allow logging concessions without any human habitation.

Camera trap monitoring efforts have shown that some of these forests can be considered as nearly optimal jaguar habitat, within the species range, with the highest recorded densities, certainly within Central America but also ranking high compared

with the South American habitats. This means that the small country of Belize can be considered as a critical part of the

Northern jaguar population and as an important node for connectivity for populations in Mexico, Guatemala and Honduras.

Despite the high forest cover and relatively intact nature of the Belize natural environment, the primary challenge for Belize is the reduction of fragmentation and the associated loss of species. Belize is reaching a tipping point as development-driven land use change is rapidly removing/depleting unprotected forest areas, reducing the natural environmental buffers, compromising ecosystem functions and connectivity.

The two large forest blocks approach each other in close proximity through the Central Belize Jaguar Conservation Unit (JCU), Manatee Forest Reserve and some smaller reserves. Although of impressive size, the Maya Mountain Massive and the still connected Central Belize JCU are likely not large enough for the long-term survival of jaguars in isolation. For this reason, connectivity to the northern Selva Maya is vital. Here a section of unprotected, privately-owned forest, currently called the Central Belize Corridor, represents a vital component of forest connectivity.

A large section of unique drier forest with salt water lagoon systems in the northern part of the country, the Northern Biological Corridor, is equally threatened with isolation. Here a tenuous patchwork of privately-owned forest can still provide connection with the Selva Maya in the north. Equally in the South some undesignated forest patches still connect the most southern national park of Sarstoon Temash with the Maya Mountains

The main threats to these corridors and adjacent unprotected forests are outlined below.

Logging

Belize was formerly a British colony that provided tropical hardwood for export. As a result, its forests were heavily logged. All forests are therefore in various states of recovery, while also being subject to frequent hurricanes. Belize has a 40-year logging cycle for mahogany as the most priced hardwood species. Some very rare wood species, like rosewood, are harvested illegally in the South at unsustainable rates. Emergency measures have been put in place to control this trade. In general, the annual logging quantities are decreasing, and Belize requires a rethink of its forestry policy including adopting variable logging cycles for different species. Around 93% of deforestation takes place outside of protected areas and mainly on private land, with a limited amount occurring on unprotected crownland (undesigned government land). As logging has traditionally been the main income source for the country from its inception, considerable thought is going into how to maintain and benefit from sustainable forestry practices, mainly through regeneration of local species rather than through the creation of monoculture forests through intensive replanting management.

Agriculture and fragmentation

In Northern and middle Belize, the farming practices have been most affected by intensification. Although some citrus and banana companies operate in the southern part, most intensive agriculture is in the North and middle, with extensive cattle farming in the core Cayo district and the North. Mennonites monopolise this market and their core population areas are in the North and middle of the country. Intensification of agriculture is driven mainly by foreign consortium money, who mainly have a 5-10 year profit system in mind and have no incentive for long-term investment in the country. This at a minimum the difference with Mennonite farmers who are invested in living in Belize and have a stake in its functioning and general health of water security and pollution. Farming consortiums simply do not have this.

The citrus industry and northern sugarcane industry are local orientated with a citrus and sugarcane processing facilities in-country. Recently a large-scale sugarcane facility was built in Central Belize with the assumption of large scale planting within the region, including the central corridor. Distance from the plant is an issue in terms of profitability. If too far, the diesel needed to transport will marginalise the profit to such an extent that general profit margins are too low. However, the Spanish-Guatemalan company has been running into financial trouble after the considerable investment of the plant, which is still the largest human structure in the country of Belize. Here again the King et al. 1993 report shows that the general area is not suitable for such crops as being too low and inundated.

In the North the sugarcane cooperative is slightly unravelling with farmers wanting to sell their farms and leaving the industry. Mennonite activity is increasing with cooperatives wanting to purchase any available land. It is difficult to predict to what extent agricultural produce will increase or decrease in demand. Diversification is likely the best strategy, while current Mennonite practices and the sugarcane industry seem to currently bet on a limited set of crops.

Belize is one of the countries which have demonstrated that naturally rewilded abandoned agricultural land can have high conservation value. There are a number of cases of removal of farms and these rewild very quickly due to the high presence of natural forest all around.

In Toledo district, for example, milpa is carried out on a large scale, distributed widely across the landscape. If done at small scale, it is not harmful, but the sheer widespread human pressure is now responsible for considerable deforestation. However, in some cases, the milpa system has been a threat to some protected areas, with illegal clearance of areas in especially the edges of the less managed forest reserves. De-reservations have happened within Vaca, Freshwater Creek and Maya Mountain forest reserves on the basis of long-term settlement and farming, which could not be reversed. The initial milpa incursions were illegal and not acted upon quickly, becoming permanent. Incursions into some of the forest reserves at the boundaries of Guatemala with Chiquibul have been common.

Game meat hunting and potential for illegal wildlife trade

Game meat consumption among the Maya community is also traditional, and some communities have a high reliance on game meat. Milpa farms attract game and thus hunting is done on farms. Here again, this can be sustainable if enough refuges and larger forest patches are distributed across the landscape, but these are disappearing creating doubt regarding the sustainability of these practices. Unfortunately, there is no data at all on population levels, in relation to offtake. Throughout Belize, small scale farming can be considered the traditional farming means with supplementary game hunting associated with it. Belizeans traditionally enjoy and frequently eat game, with nationally 7% of their meat diet consisting of game meat, which can go as high as 20% in Toledo. These numbers are changing and getting replaced by farmed species. Fortunately, Belize is a gun hunting country; snares and traps are hardly ever used. The culture of hunting is very deep and, for example, popular among law enforcement officers, with many police officers hunting in free time.

The high amounts of intact wilderness and potential for high-value natural wildlife products, creates the real potential for a flourishing illegal wildlife trade. Anecdotal evidence suggests that some trade is happening but it is in its infancy. The Belize government needs to stay on top of this to assure they are ahead of the curve and can stop high level organization before it emerges.

Conflict

The livestock industry is growing and almost all farms are at the edge of wilderness areas, creating high possibility of jaguar-livestock conflict. The high amount of edge equally creates the high possibility of game hunting with the country having a long tradition of game meat consumption. The high level of national attention on jaguars has led to the first government led jaguar conflict response team. However, this requires further expansion and resources to assure success.

As the only English-speaking country in the region, Belize attracts considerable attention in terms of tropical education studies from English speaking universities. This has been integrated income generation for many protected areas, providing the basis for an extensive network of camera trap monitoring effort, some consistent and some more haphazard. These efforts provide an important baseline for building a national monitoring system, through government regulation and delegation. Belize's relatively small size creates the possibility of truly knowing, with enough precision and accuracy, the distribution and abundance of jaguars throughout the country, allowing detailed management of its population. This requires building capacity within the government to manage and bring

together these data within a national system and communicate and liaise with all relevant stakeholders providing data. Some of the protected area units have high management capacity, with limited capacity for some of the forest reserve, meaning limited knowledge of wildlife distribution or management. Holes within the monitoring and management system need to be filled through an integrated system of a data warehouse management system under the currently developed Forest Information System of the Belize Forest Department. With the widespread implementation of SMART systems in the country, the combination of wildlife monitoring system and increased enforcement efforts can lead to an efficient system of wildlife management within the National Protected Area System (NPAS). Wildlife moving outside of this for wildlife management system can be regulated by the conflict resolution team per district. The Belize Forest Department has started such a system by having one forest ranger dedicated per district, but the system is in its infancy. The current program will strengthen this with further NGO involvement and financial and expert assistance within the current network.

2) The baseline scenario and any associated baseline projects

The baseline situation is described below by project component.

Component 1: Conserving wildlife and habitats

Baseline activities under Component 1 include landscape-level activities associated with management of the Sibun River Watershed landscape as well as national-level efforts to develop improved information and data management systems.

National database: Belize is the first English speaking tropical country south of the United States. As such it is extremely popular for US and European universities as a teaching ground for tropical ecology courses or for establishment of field sites for postgraduate research. In light of this, Belize can be considered one of the Neotropical sites with the highest density of camera trapping in Neotropics. The high density of camera trapping effort and the small size of Belize thus allows the ability to assess population status of wide-ranging species at the national level (e.g. jaguar, puma, white lipped peccary). For many of these species monitoring effort is insufficient at the local site level of protected areas and thus the combining of datasets for national assessments is essential. Preliminary efforts of combining some datasets has already shown remarkable results, with the furthers recorded moves of jaguars ever recorded (160 km), indicating considerable dispersal distances of jaguars moving between survey sites. One of the largest barriers for freely sharing data and consolidating collaborative efforts into single studies concerns the dispersed funding and research bodies that have paid for these studies. All entities require recognition to sustain their activities and in essence compete for the same funding. Here crediting and recognition are important considerations. Equally funding efforts mainly concentrate on field activity with limited to no consideration given to data storage. Cleaning up of badly managed datasets after 2-3 years, frequently shows that it is impossible to extract useful information, making many camera trap efforts useless. It is in this light that current efforts need to be streamlined and brought under good data management with transparent and honest systems of data-sharing, recognising and

involving the on the ground efforts when writing and publishing assessments (the ultimate calling cards of monitoring efforts).

Several initiatives and clearing house mechanisms have been proposed for standardisation of protocols and storage. Camera traps are by definition a standardised means of collecting data as they are standard automated units collecting similar data per location. Within the Key Biodiversity Areas project for GEF 5 camera traps were recognised as the most standardised survey method, which should be used to spearhead national monitoring database efforts. During this project, the 5 largest NGOs, together with major camera trap partners and the Forest Department were brought together to discuss, means, conditions and possible platforms for data sharing of camera data (KBA national monitoring document 2019). All partners agreed on the need for sharing, and under what conditions they were willing to do so, within a single platform. The KBA project stopped in September. The current proposed GEF7 funding can provide the necessary finishing impetus for assuring that this is brought to fruition, as an initial building block from which further national issues can develop. There are several international partners ready to assure assistance for this. It is the perfect starting point for wildlife database management at the national scale, brought in a framework of agreement with the five larger national NGOs and camera trap partners, together with the forest department. The camera database thus created a structure of data ordering and exchange and this format can than easily be expanded into further wildlife databases with more political sensitivities, such as game meat hunting (component 3) or wildlife conflict resolution (component 2), which frequently require camera trapping as part of their monitoring effort.

Area of implementation: The Forest Department manages a considerable number of Forest Reserves with limited financial resources. There is considerable variation in management capacity between the different forest reserves, based on revenue generation from extraction. Some are highly financially sustainable operations funded by logging with adequate presence (e.g. Chiquibul Forest Reserve, Mountain Pine Ridge). However, some of the reserves have limited presence as they are without revenue generating activities (e.g. too rugged to sustain logging operations or permanent infrastructures). These reserves are highly vulnerable to illegal extraction, especially of none timber products which do not require the heavy machinery and infrastructure necessary for wood extraction. Hunting and smaller plant gathering can be done on foot with backpacks and pick up trucks on smaller tracks. The forest department has been able to find management solutions for several of these reserves, not generating enough income from logging, finding suitable NGOs to develop and implement management plans (e.g. Freshwater Creek in the North with CSFI and Maya Mountains with Ya'axche Conservation Trust, and Vaca having a management plan and candidate management organisations). It is thus that management solutions for forest reserves are found at a case by case basis, with projects assuring sufficient logistical and financial attention, bringing partners and communities together for management solutions.

Baseline activity under component 1 is focused on three extremely vulnerable forest reserves in the centre of the country (Manatee, Sibun, and Sittee River). These three areas form the core connection, outside of the bottleneck of the Central Belize Corridor (renamed the Maya Forest Corridor), between Belize its largest contiguous forest block, the Maya Mountain Massive, and the Selva Maya in the North. With an extremely strong

international coalition of partners working together to secure the corridor, this is the right moment to bring an impetus to the neighbouring forest reserves, providing the vital protected connection, through vulnerable watershed areas. The presence of jungle training through the British Army Training Support Unit Belize (BATSUB), assures some positive presence in Manatee, with highly regulated international jungle training, including live firing. BATSUB is funding an intensive EIA project looking at the effects of live firing in both Manatee and Sibun, carried out by Panthera Belize. This project includes an initial camera trap effort. Results from this study show considerable hunting presence in Manatee (Wooldridge & Harmsen 2019) and potentially Sibun (no results yet available). The communities and loose settlements along the highways (coastal road and Hummingbird) consider the three forest reserves their backyard. There is considerable potential for easy non-timber extraction, if not checked. Anecdotal evidence indicates that this is the case for at least portions of these forest reserves. One of the main conservation issues for all three areas concerns lack of knowledge in terms of biodiversity status. The current project can therefore provide the necessary impetus for any conservation effort. The camera trap monitoring effort of the proposed coalition can create systems and management structures to bring these three areas together within a management umbrella within a single project. Camera trap surveys are a very good means of creating low key infrastructure and a great conservation colonising tool.

Component 2: Promoting a wildlife-friendly economy

Baseline activities under Component 2 include landscape-level activities associated with management of Belize's Northeast forest landscape as well as national-level efforts to develop improved information and data management systems. Important among these activities are ongoing efforts led by the Corozal Sustainable Future Initiative to consolidate management of the recently established Northern Biological Corridor. Baseline activities related to demonstration areas of jaguar-livestock conflict and development of a wildlife-friendly economic activities are outlined below.

Live capture: The success story of Belize as a conservation beacon, having 60% of its landmass under natural wilderness cover, equally has unwanted side-effects for the Belize economy. The intact trophic species structure of the wilderness environment means a relative high density of top predators. The largest predator, the jaguar, frequently preys on livestock when farms are in close proximity to wilderness areas. Most intensive livestock production takes place in predator free areas and livestock has been bred to be docile and have lost all anti-predator behaviour. It is thus that livestock, without extra protective measures, is extremely vulnerable to jaguar predation. In Belize all rural communities and farms are surrounded by wilderness with jaguars living at the edges of farms and communities. Jaguar predation of livestock is widespread and a problem across the country. Retaliatory killing of jaguars is common and allowed by law as the current wildlife act indicates that people can protect their livelihood.

Several trials have been initiated by two NGOs (Panthera and Ya'axche), in close collaboration with the forest department, helping and assisting with these trials. Here a limited number of farms with historic records of jaguar predation, were targeted for help with introduction of anti-predation measures. The NGOs financially supported these

farmers with the measures as it concerned small scale farmers with limited financial means. They are unfortunately representative of the majority of farmers across Belize; mostly small farms with limited ability for management change, usually having 20-50 head of cattle or livestock (pigs/sheep). This makes that jaguar predation problems are spread across many actors with limited financial means, exacerbating the problem considerably. Solving jaguar depredation problems are easiest when dealing with a limited number of actors, occupying a maximum amount of land. Large landowners equally have the financial means to finance management changes.

The targeted model farms were concerned 10 farms in rural Belize and 10 farms in Southern Belize, introducing different measures of protection: guard animals like donkeys, electric fences, automated lights, night corrals, food banks to concentrate livestock in safe zones. The trials were successful for the individual farms, showing a considerable reduction in predation on the farm itself but not within the wider landscape. The problem was merely moved to neighbouring farms (path of least resistance for jaguars). Equally there was resentment among neighbouring farmers about not being included in the trial and not receiving help, which could potentially lead to a greater incentive to use lethal control of solving their (intensified) problems. The conclusion was that within a small farmer community, with high number of farms, the problems should be solved at the landscape level, moving away from the few single model farms receiving financial help with management. A jaguar working group was started to discuss these complex problems with limited finance and to assure a network of data-sharing, with greater understanding the problem at the national level, setting priorities.

Unfortunately, this group has not been given enough time to make structural national changes, as most of their time was occupied by discussing and trying to solve immediate urgent cases of jaguars moving very close to communities and farms (killing dogs close to people's houses). These cases usually cause considerable fear among people with communities providing bad press for jaguars in social media and among rural communities. The main immediate problem concerns the lack of ability by government and NGO managing stakeholders to act when jaguars pose a genuine problem. Currently there is no permanent team having the ability to safely live capture a jaguar, being able to judge the necessity of situations and act (independent of the discussion of euthanasia or translocation). The expertise to trap jaguars safely when they truly pose a danger or cause considerable fear among the public is simply not permanently present.

To assemble, train and test, a professional Belizean trapping team, with government support and endorsement, requires training and testing at a smaller scale. We propose to do this in the North-Eastern part of the country, in the area managed by the Corozal Sustainable Future Initiative (CSFI). CSFI can be considered one of the most stable and financially viable NGOs in the country with considerable long-term support of outside donors, allowing them to maintain trained staff and build capacity after projects. They equally have a thriving livestock industry surrounding the areas they manage, with a high chance of potential conflict from the jaguars under their direct management. There is equally uncertainty regarding the remaining unprotected forest areas, which are privately owned. Conversion of these forests to agriculture would mean displacing jaguars, who are subsequently more likely to search for food within the livestock industry areas. As Belize has hosted several live capture projects for collar and follow projects of jaguars (including

CSFI), there is the logistic knowledge to support trapping. There is equally the international contacts with experienced trapper/veterinarians who have worked in Belize, with several interested Belizean vets ready for training.

Wildlife economy around camera pictures: CSFI carries out large scale camera trap monitoring within their area of management. Camera trapping has been fully internalised within CSFI as an organisation, with experienced staff able to train new recruits. All camera activity has focussed on scientific monitoring, as proposed in component 1. However, CSFI has considerable experience in tourism, letting tourists experience Northern Belize and its nature. The likelihood of tourists or visitors actually seeing a jaguar in the wild is slim in Belize, as anywhere within the jaguar range. Only a select few areas within the jaguars range have specific environmental conditions that can provide for the reliable sighting opportunity for jaguars and other wildlife (e.g. Pantanal) to create a safari experience. As this is not possible in most of the Neotropics, camera traps can be used to indicate the story of wildlife to tourists. The photos become a resource for tourism, in terms of informing tour guides, creation of postcards, letting people view areas where jaguars have passed (you might not see them but we can prove they walked here).

Equally, unprotected areas with tourist activity can provide proof that they have wildlife (e.g. lodges etc). It is in this manner the northern area of CSFI is equally a good testing ground for increasing economic activity around monitoring and camera trapping.

Component 3: Combatting wildlife crime and unsustainable hunting

Baseline activities under Component 3 include landscape-level activities associated with management of the Maya Golden landscape as well as national-level efforts to develop systems for sustainable game species management.

Belize has a strong hunting and game meat consumption culture, with high levels of hunting rifle ownership and widespread hunting. However, this hunting is scarcely regulated. The current wildlife act requires the purchase of a hunting license at a relatively high price (around \$2,000 BZ); this high price, together with a policy of limited enforcement to respect traditional use of game meat extraction, means that few hunters—only two in 2016—take out hunting licenses. Most hunting by rural people is carried out through with guns that are licensed through the farm license system, which allows them to go armed on their own farm / property in order to protect themselves and their livelihood. As such, they have the right to shoot game on their property under the logic of protecting their crops. Nearly all gun ownership is justified through farm licenses. Little information is therefore collected regarding quantities of hunted game and few people apply for licenses.

It is also quite easy to purchase game meat—food stalls openly sell it by the side of the road—including deer, peccary, paca, armadillo and others. Selling of game meat falls under a different part of the wildlife act, and here regulation has improved recently. Public selling appears to have become less common, with a recent publicized enforcement campaign on seller licenses. This does not seem to have reduced the availability of game meat, however, but simply made it is less visible.

Nationally, about seven per cent of all meat consumption (including fish) is estimated to come from terrestrial game—a considerable proportion. In Southern Belize, in Toledo district, this figure may be as high as 20% (Foster et al. 2016). Here, the traditional farming method of Milpa (some corn, some beans, some fruit trees, cacao) creates a relatively high-yield and varied produce that attracts many game species to profit from the overabundance of food. Farmers compensate the food loss with hunted game. The majority of hunting therefore takes place within a human-dominated landscape that is still rich in wildlife, especially in areas neighboring some of the larger protected areas.

The baseline situation is marked by limited understanding of game species populations, availability of game, hunting effort and offtake levels and by informal bush meat markets. Many of the species in question also represent food sources for jaguars. Growing human populations and shrinking forests outside protected areas are contributing to the challenge. A further factor on the demand side is the presence of a growing and relatively affluent resident Asian community, some of whose members may be supplementing traditional medicine and cuisine from Asian with locally acquired substitutes. This trend has already been observed in Suriname, Bolivia and Peru Verheij 2019). In Belize, there is some evidence (personal comment, B. J. Harmsen) that Chinese traders are in contact with local hunters and providing price lists for jaguar meat and teeth. So far, uptake for this seems to be low.

A 2016 US Fish and Wildlife grant, a set up collaboration between Wildtracks (Belizean NGO in the North) and the Forest Department, the program aimed to inform the public about illegal trade and illegal ownership of primates and parrots. The campaign equally held training sessions for the identification of wildlife species. Apart from these efforts the few wildlife officers are trying to deal with human-wildlife conflict and day to day permitting and enforcement issues. As such any hands on addition to the current shorthanded program with NGO staff is very welcome.

3) The proposed alternative scenario with a description of outcomes and components of the project

The project design has shifted somewhat since the concept note, in line with GEFSec comments and guidance (see Annex B for details).

The project's theory of change stems from the identification of key baseline characteristics underlying any effort to conserve biodiversity conservation in the country (not shown in diagram for reasons of space). These are:

- Belize is likely the only Central American country which can still boast a fully connected forest system. The intact trophic species structure of its wilderness environment is evidenced by a relatively high density of top predators, notably including jaguars.
- Jaguars are a national landscape species (impressive recorded 'dispersal distance'), which require connectivity for genetic exchange. This creates a driving force / need for currently fragmented management and monitoring activities (see below) to be integrated at national level.
- Belize maintains three functional, but threatened (see below), biodiversity corridors, each with significant populations of jaguars, tapirs and ungulates. Within these corridors, rural

communities and farms are surrounded by wilderness, with jaguars living at the edges of farms and communities.

- Belize's history demonstrates that abandoned agricultural land can be naturally rewilded and return to a high level of wildlife conservation value.
- The country's small size and relatively high density of camera trapping effort to date creates an opportunity to manage still viable wildlife populations at the level of connected landscapes. To do so, data, information and modeling needs to be integrated in order to enable science to inform political processes and decisions on land-use planning and change, e.g. where the agricultural boundary should be allowed to expand, where wildlife losses may be inevitable and where conservation efforts need to be strengthened.

The project closely reflects the Global Wildlife Program (GWP) Theory of Change (TOC). The project structure is aligned with three of the four GWP pillars, namely Conserve Wildlife and Habitats, Promote Wildlife-Based Economy, and Combat Wildlife Crime, as well as with several of the activities/outputs outlined in the TOC (see Table 1 below for details of correspondence). In turn, these activities will contribute to the short-term outcomes established for the GWP, such as landscapes with improved biodiversity management practices, increased incentives to protect wildlife and capacity to co-exist with wildlife, and strengthened institutional capacity to combat international wildlife trade (IWT), among others. Over the medium term, the project will contribute to the GWP outcomes of wildlife conservation and crime prevention, and in the long-term to the outcomes of global biodiversity conserved, livelihoods for local communities improved, and resilience enhanced. The project, together with other possible projects emerging following the Jaguar 2030 High-level Statement and Roadmap, plans to make full use of GWP coordination processes and structures for stimulating action across the jaguar range. The present project is expected to be a cornerstone in these efforts.

GEF funding will focus on support to incremental costs associated with conserving jaguars and their habitats. These include mainstreaming biodiversity conservation across economic sectors and addressing direct drivers to protect habitats and species. GEF incremental support will have an important impact on the long-term viability of jaguars and associated prey species in particular, as well as on other globally significant species and ecosystems.

How the project can assist the target beneficiary communities during the Covid-19 situation / Benefits this project will provide communities in the context of Covid-19

The project will directly and indirectly mitigate any COVID-19 risks by encouraging stakeholders to undertake preventive behavior to stop COVID-19 infection and spread. This will include:

- project staff/ consultants will be required to observe relevant practices – such as not organizing in-person meetings or big gatherings and reducing travel and in-person meetings, in line with general guidelines in effect at the time
- project staff and consultants will also be asked to reinforce government and international best practice behaviours in communities where they are working through direct

communication, and disseminating government and other produced information / posters, etc.

The project will also operate in line with the concept of build back better by contributing to a green recovery in ecotourism sector. The project's interventions will contribute to enhanced ecosystem services, improved livelihoods and enhanced income diversification options for engaged communities and beneficiaries. The project's landscape approach will contribute to their more rapid diffusion and uptake across the project's sizable landscapes.

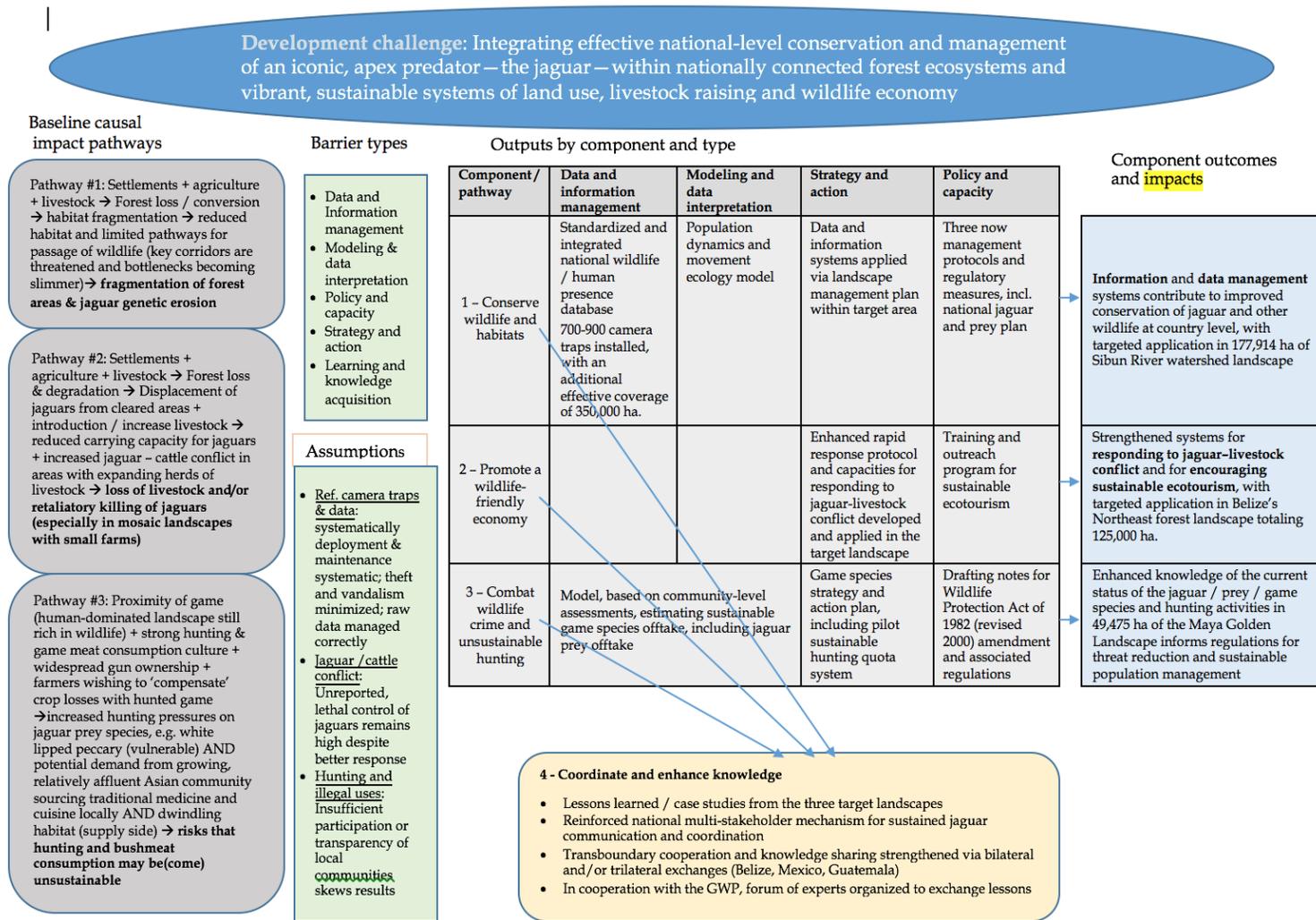
Finally, COVID-19 is acknowledged as a risk (see risk table below) and relevant mitigating measures have been included.

Project target landscapes were selected based on their essential contributions to jaguar conservation in Belize. Each demonstrates a particular type of threat to the species as follows:

- The Sibun River Watershed Landscape (see Map 1, p.50) was chosen as a central site within the jaguar range with limited management and enforcement ability. The monitoring efforts are equally meant as an initial effort to create infrastructure and planning to allow surveillance and monitoring of the overall site. The area appears to suffer from moderate to high levels of poaching of game species, linked to fragmentation and increased access. As a result, the carrying capacity for these areas to sustain jaguar populations is lowered considerably, with a knock-on effect of increased human-jaguar conflict as jaguars are forced to leave the forest reserves in search of food.
- The Northeast Forest Landscape (see Map 2, p.51) was chosen on the basis of the sharp edge between livestock rearing and the protected area, creating high opportunity for human-wildlife conflict. Here, the objective is to mitigate and set up a system for managing wildlife-cattle conflict on the basis of lessons learned in this high contact zone area.
- The Maya Golden Landscape (see Map 3, p.52) was chosen on the basis of high hunting of jaguar prey species by communities, mainly for consumption. The establishment of a regulatory system will ensure sustainable use of an unregulated offtake system, helping coming communities come to grips with using wildlife as a protein source.

All three sites and processes have the ability to contribute to more organised trade in wildlife. Human jaguar conflict can feed into an illegal wildlife trade under the guise of protecting livelihoods. Subsistence hunting can change into commercial hunting with networks. Monitoring of the three sites and engagement of stakeholders will enable enhanced monitoring the situation of national and international wildlife trade in Belize.

Figure 2: Theory of change



Component 1: Conserving wildlife and habitats

Outcome 1: Information And Data Management Systems Contribute To Improved Conservation Of Jaguar And Other Wildlife At Country Level, With Targeted Application In 177,914 Ha Of Sibun River Watershed Landscape

The project will help to ensure Belize's ability to monitor jaguars and their prey throughout the country. This outcome will be significantly enhanced via the consolidation of a wildlife monitoring network, based largely on camera trap data, and of a means of bringing data together within a single database. This will require key stakeholders to work together to populate the database and to assure the systematic upkeep of its constituent elements. Outstanding gaps in existing monitoring have been identified and will be filled, thus providing the added data needed to ensure a significantly enhanced understanding of jaguar distribution and presence across a contiguous core area of the jaguar landscape. Understanding will be further enhanced through the development and application of a population dynamics and movement ecology model.

In addition to its national-level aspects, the project will demonstrate its gap-filling and information-using approach in a contiguous area of central Belize, the Sibun River watershed (see Annex 2 of UNDP ProDoc, Map 1). The area consists of a variable landscape in terms of habitat, with majority broadleaf forest and some pine savannah habitat at the edges. The more accessible areas in the Northern (flatter) portions of Manatee Forest Reserve have been selectively logged through several logging concessions. The Southern forest reserves of Sibun and Sittee River are extremely rugged and stream rich and as such difficult to traverse with heavy machinery. Here the vegetation is more intact. Manatee Reserve has considerable hunter presence and as such could be depleted of larger ungulate species (white lipped peccary extinct).

Outputs needed to deliver the above outcome, and associated indicative activities, are described below.

1.1 A standardized and integrated national database for wildlife and human presence monitoring, with emphasis on underpinning conservation of jaguars and associated (prey) species

The project will implement a standardized and centralized system of data management, with detailed systems for sharing data among contributing partner organizations. All camera trapping entities, both national and international, are expected to contribute data to the national database to allow national assessment of the state of wildlife across Belize. This will enable country reporting to the Convention on Biological Diversity (CBD) and other international bodies to be done in far greater detail, based on enhanced knowledge of the viability of larger mammalian wildlife populations.

The following indicative activities are expected:

1.1.2 Conclude an MoU governing data sharing amongst all camera trap partners, including agreement on design of new camera trap studies

1.1.3 Introduce cloud-based camera trap data management platform universally and ensure adoption by all partners

1.1.4 Train users of data management system, including central hub managers

1.1.5 Equip satellite input agencies with hardware adequate to support regulated dataflow from field to database at fixed intervals, thereby assuring timely entry of data into the system

1.1.6 Support platform management capacities within the Forest Department

1.2 Approximately 700-900 camera traps installed, complementing, improving and extending existing installations, with an additional effective coverage of 350,000 ha.

This output will expand upon the existing baseline camera trap monitoring infrastructure, present mainly within the currently active areas of NGO management. An important camera trap monitoring gap—located between the Rio Bravo and Maya Forest Corridor, previously the Central Belize Corridor, and the current most Northern monitoring efforts of the Maya Mountain Massive around Chiquibul, Mountain Pine Ridge and Cockscomb Basin Wildlife Sanctuary—will be filled with approximately 100 new camera traps to be procured by the project. Filling this gap will enable monitoring of the most important, contiguous jaguar conservation units—together with the most important central corridor—as a single unit, allowing monitoring and management of this overall landscape without any gaps. Together with strategic placement of previously purchased but not yet installed camera traps in other areas—mainly protected areas, but also within the productive landscape—a total of 700-900 new camera traps will be installed and resulting images brought into the national database (see Output 1.1), with an additional effective coverage of 350,000 ha.

The following indicative activities are expected:

1.2.1 Establish a well-trained camera trapping field team, under guidance of the forest department

1.2.2 Scout out and assess appropriate locations for deploying camera traps across the target landscape

1.2.3 Procure, deploy and maintain camera grid throughout the target landscape

1.3 A model of population dynamics and movement ecology of jaguars and wide-ranging prey species based on enhanced monitoring data

The increased monitoring system, setting up a national collaborative network will result in monitoring information at the appropriate national scale. This improved scale will require and stimulate the development of new analytical tools by a network of international collaborators. The unique scale of the national Belizean dataset will allow Belize to spearhead a new means of management and monitoring, bringing together stakeholders from management and scientific communities.

The following indicative activities are expected:

1.3.1 Develop the analytical tools needed to continuously assess variation across the landscape in: jaguar density, distribution, dispersal distances, survival, habitat use with emphasis on fresh water availability, enhancing knowledge on climate change within the upper regions of the jaguar range

1.3.2 Develop the analytical tools needed to continuously assess variation across the landscape in: prey density, and distribution, habitat use with emphasis on freshwater availability

1.4 Three new management protocols and regulatory measures, including a National Jaguar and Prey Policy, Strategy and Management Plan

Belize's wildlife laws date back to the times of British Honduras and the country lacks species-specific management strategies. The well-designed protected area system plan provides solid management structures within a co-management framework. However, this has the downside that the fragmented management structure of human defined protected areas boundaries is insufficient to assure management of wide-ranging species, with population structures transcending the individual protected area boundaries. To address this barrier, the project will develop management protocols and regulatory measures for these species at national and landscape scales. This will include, inter alia, a National Jaguar and Prey Policy, Strategy and Management Plan.

The following indicative activities are expected:

1.4.1 Develop National Jaguar Action Plan to improve national structures and systems of collaboration for the maintenance of Belizean jaguar populations

1.4.2 Develop National Guidelines for prey species management, with a focus on white-lipped peccary

1.4.3 Develop national protocols for assessing major game species in Belize

1.5 Enhanced data and information systems applied to design and initiate implementation of, a landscape management plan within the c. 178,000 ha target area

Manatee, Sibun and Sittee River Forest Reserves are located at the heartland core of protected areas. They provide a vital link between the North and the South of the country. They are, however, among the areas currently receiving the least amount of attention and management. Expanding camera trap monitoring under Output 1.1 will greatly enhance knowledge of this landscape. This knowledge will be used to underpin a constructive dialogue regarding further management and monitoring of the reserves. This output will thus fill an extremely important gap by providing a data-based assessment of the status, distribution, and security of jaguar and prey populations in general, while initiating processes of increased management structures for the area. The latter will include the mapping out of efficient access routes to move around the landscape (e.g. drop off points, easiest pathways to traverse) by management personnel, which will allow presence, monitoring, and full landscape assessment for the area.

The following indicative activities are expected:

1.5.1 Identify high priority conservation areas for jaguar / wildlife conservation corridors within existing forest reserves with recommendations for reclassification for enhanced protection

1.5.2 Develop a landscape management plan for the target area, including, inter alia, road barrier management, in support of the national jaguar corridor system

Component 2: Promoting a wildlife-friendly economy

Outcome 2: Strengthened systems for responding to jaguar–livestock conflict and for encouraging sustainable ecotourism, with targeted application in Belize’s Northeast forest landscape totaling 1216,913 ha.

This outcome aims to assure the capacity of Belizean authorities to safely and professionally capture individual jaguars that may be threatening lives or livelihoods of people in the human dominated landscape. This team needs to be able to capture jaguars, using the latest techniques with the least possible harm to jaguars, or possible harm to team members or public. The team need to be well versed in jaguar ecology in human dominated landscapes and able to make expert assessments of whether trapping is necessary or not in any given situation. In this way, the project will contribute to a more harmonious relationship with the livestock sector in particular.

In broader economic terms, the project will aim to stimulate jaguar-themed tourism outside of protected areas in conflict areas, as a remedy against negative perception of jaguars. Several initiatives for creating economic activity around tourism and citizen science projects will be tested.

Outputs needed to deliver the above outcome, and associated indicative activities, are described below.

2.1 Enhanced rapid response protocol and capacities for responding to jaguar-livestock conflict developed and applied in the target landscape

The testing of a field team will be done in the North of the country, spearheaded by the Corozal Sustainable Future Initiative (CSFI). Here an expert jaguar trapper, together with a jaguar expert in ecology of jaguars in human-dominated landscapes, will provide training to the newly established team on how to trap jaguars and when, developing protocols in close collaboration with the Forest Department as the government entity. These trainers will help recruit and build a team. The team will be tried and fielded during the GEF7 project.

The following indicative activities are expected:

2.1.1 Work with CSFI to build a national jaguar conservation / capture team.

2.1.2 Provide intensive training in ecological assessments of jaguars in human-dominated landscapes, allowing accurate threat assessments

2.1.3 Conduct field work / learning-by-doing to capture 20 jaguars in human-dominated landscapes and follow their subsequent movements through GPS telemetry

2.1.4 Engage local communities and management entities in the development of early warning and wildlife conflict incident reporting protocols.

2.2 Training and outreach program for wildlife-friendly economic activities

The project's promotion of a wildlife-friendly economy will aim to foster co-existence between wildlife and people. Local peoples, including herders, ranchers, farmers, artisans and indigenous peoples, will benefit from ecosystem-based livelihoods in parallel with their active participation in conservation measures and their adoption of non-lethal co-existence practices. Sustainable ecotourism, including cultural / educational and ecosystem-based tourism products, will provide an opportunity for community participation in a wildlife-friendly economy, while enhancing local support for wildlife conservation by encouraging jaguar-focused visitation and mitigating negative attitudes arising from conflict. The project will support, in cooperation with the Belize Tourism Board, the development of a new ecotourism package which can be certified as wildlife friendly and promoted by communities buffering the national jaguar corridor. Relevant private sector tourism operators will be fully engaged throughout this process.

Also under this output, the project will enable landowners to participate in conservation practices as citizen scientists, i.e. as contributors to the national camera trap network.

During the first year of implementation the project will conduct livelihood analysis/ assessments to establish sustainable livelihood alternatives through a thorough stakeholder consultation process within the buffer communities of the northern "Jaguar Corridor". Once defined, such alternative livelihood activities will undergo the environmental and social risk screening process following the UNDP SES procedure. If risks are identified, the project will develop the appropriate management measures and plans, such as a Livelihood Action Plan to avoid, reduce or mitigate the impact of such risks.

Finally, the project will make seed funding accessible to communities buffering the Jaguar corridor to build new sustainable opportunities for livelihoods. These opportunities will be designed to improve quality of life as well as benefiting conservation in the area.

The following indicative activities are expected:

2.2.1 Engage the Belize Tourism Board to develop a specialized tourism product and certification linked to jaguars, including camera trapping activities, honey and other products and services to be developed under Activity 2.2.3

2.2.2 Provide technical support to participating guides and landowners enabling them to contribute to the national camera trap network.

2.2.3 Support selected livelihoods alternatives within buffer communities of the northern "Jaguar Corridor", e.g. buffer zone honey, while conducting necessary risk screening procedures.

Component 3: Combatting wildlife crime and unsustainable hunting

Outcome 3: Enhanced knowledge of the current status of the jaguar / prey / game species and hunting activities in 49,475 ha of the Maya Golden Landscape informs regulations for threat reduction and sustainable population management

Under the GEF alternative, six communities will be empowered to manage wildlife sustainably on community lands in Toledo District, within an area known as the Mayan Golden Landscape. The habitat here is edge habitat, meaning logged, recovering and fragmented. Hurricane Iris in 2001 caused considerable damage in this area. The area is water rich and this southern region is the wettest part of the country. This area is the transition zone from the higher elevation Maya Mountain Massive to the coastal plain with changing into Pine-savannah habitat and literal forest. All this habitat is at the edge of large stretches of intact protected broadleaf forest habitat and as such, wildlife spillover can be considerable. Hunting is traditional and widespread. Species assemblages are still complete.

Sustainable offtake—including that associated with hunting by the area’s jaguar population—will be estimated through a combination of camera trap data, community surveys and modeling. A quota system will be designed and tested. Information derived from surveys and a community-based monitoring system will be instrumental in establishing an early warning system for overhunting of prey species, as well as for any signs of emerging commercial trade in wildlife, including jaguar parts. Results will be captured and will be made available for use in ongoing efforts to update the Wildlife Law and for potential adaptation to other areas of the country.

Outputs needed to deliver the above outcome, and associated indicative activities, are described below.

3.1 Model, based on community-level assessments, estimating sustainable game species offtake, including jaguar prey offtake by viable predator populations

To assess how much wildlife is potentially available for legal offtake within the rural landscape, the project will place camera traps on farms in community land, which will provide visitation rates and frequencies of capture on camera for the different game species. General abundance measures will be estimated for the different wildlife species present on farms, providing an informed baseline for presence of wildlife. The camera trap data will likewise inform about the presence and abundance of jaguars in the area.

In addition to camera trap data, surveys will be undertaken at specified intervals throughout the project period, in which hunter/farmers will be interviewed regarding hunting frequency, area covered, average offtake per species, offtake of jaguars and other aspects of hunting practices. A broader subset of villagers will be interviewed regarding consumption of wildlife/game species for subsistence. Significant differences between hunting levels and local game consumption will serve to indicate a commercial market for game.

The following indicative activities are expected:

3.1.1 Recruit community members to participate in camera trap surveys on community lands to assess game species abundance and jaguar presence.

3.1.2 Design and administer social surveys in six communities as a means of estimating current hunting levels and local subsistence use (consumption), as well as degree of commercialization of game

3.1.3 Estimate the economic value of the wildlife resource to local communities and the potential economic loss if it were to collapse through unsustainable offtake

3.2 A strategy and action plan for the monitoring, sustainable management and use of game species, including a pilot sustainable hunting quota system, developed and implemented in six communities

Communities will be supported in moving from a “free for all”, unchecked hunting system to a regulated, controlled system in which abundance of game species is known and, with the help of data-driven expert opinion, quotas are negotiated with local hunter community and implemented. The wildlife economy surrounding this legal activity will be assessed and quantified.

The following indicative activities are expected:

3.2.1 Based on enhanced data and understanding emerging from Output 3.1, develop community resource use management plans

3.2.2 Seek community support in the mainstreaming of wildlife / game species monitoring in community governance systems

3.2.3 Build capacities of local communities to monitor wildlife levels with cameras, in collaboration with Forest Department and managing NGOs

3.2.4 Develop recommendations for broader national-level application / uptake, i.e. how lessons learned can be implemented nationwide, e.g. creation of other “hunting community” structures.

3.2.5 Develop technical guidance/ drafting notes on sustainable hunting levels, per game species, to inform amendment of Wildlife Protection Act.

Component 4: Coordinating and enhancing knowledge

Outcome 4: Enhanced national / transboundary / jaguar range collaboration, knowledge management and communication

The project will pay close attention to knowledge management, which will take place at multiple geographic and thematic levels:

Within the Global Wildlife Program: As a child project under the Global Wildlife Program (GWP), the present project will maintain especially close ties with other child projects under the GWP. It will support the diffusion of knowledge, know-how and ingenuity: (i) across the Jaguar Corridor, which extends across 16 countries and 6,000 km², and (ii) with

other projects and regions that may be addressing the conservation of big cats or other umbrella species.

Within Belize: Throughout its implementation, the project will develop knowledge sharing products such as: report of lessons learned and good practices, south-south cooperation, triangular cooperation, as well as tools and methodologies that can be applicable to the jaguar as well as other species, at different levels, both locally and nationally. Additionally, the obtained results will be shared with countries in the region (LAC), in a way that contributes to the strengthening of the Jaguar Roadmap 2020-2030 as well as the implementation of the Agenda 2030, mainly associated with SDG 15.

Within GEF: The project will liaise and exchange knowledge with relevant GEF-7 Impact Programs, particularly the Food Systems, Land Use and Restoration Impact Program (FOLUR), which will support transformational shifts in large landscapes by taking into account competing demands for production of staple foods and major agricultural commodities, while harnessing opportunities to protect natural environments and restore degraded landscapes. Given the importance of expanding production of agricultural commodities as a threat to jaguars and a driver of habitat loss within the Jaguar Corridor, the FOLUR programme—both its methodological approaches and the on-the-ground support afforded—will be a target for knowledge sharing by the project.

4.1 Knowledge capture and sharing

The project will commission programmatic impact assessments of each of the three main outcomes. This action will inform case studies which will be shared nationally, including through public fora. It will support Belize's active participation in transboundary/ jaguar network sharing events, which will support, *inter alia*, implementation of the COP 71 decision on jaguars. Particular attention will be paid to coordinating with national jaguar-focused projects in Ecuador and Panama on lessons learned with respect to jaguar management, particularly in the area of camera trapping and data management systems being developed under Component 1. More generally, knowledge sharing efforts will engage other jaguar range countries and will reflect priority issues agreed by these countries in the Jaguar 2030 Roadmap, including conservation-compatible sustainable development models in jaguar conservation units and corridors.³ Finally, Belize is considered an important partner in maintaining jaguar populations and in ensuring connectivity in the regional jaguar range. As the project is expected to generate useful information, pilot innovative management models, etc., it will support the broader dissemination of lessons learned through the country's hosting of a regional forum on jaguar management, to be organized in close cooperation with the GEF's Global Wildlife Forum (GWF).

The following indicative activities are expected:

4.1.1 Lessons learned / case studies from the three target landscapes are captured and disseminated

³ See [Jaguar 2030 Roadmap: Regional plan to save America's largest cat and its ecosystems](#), which has been endorsed by 14 of 18 jaguar range countries.

4.1.2 Transboundary cooperation and knowledge sharing strengthened via bilateral and/or trilateral exchanges (Belize, Mexico, Guatemala) with a focus on key transboundary landscapes

4.1.3 In cooperation with the GEF Global Wildlife Programme, a forum of experts organized to exchange lessons learned regarding key topics such as landscape management of jaguars and wildlife crime / trafficking

4.1.4 Ensure that knowledge gained through association with the Global Wildlife Program (GWP) is shared widely within Belize

4.2 Reinforced national multi-stakeholder mechanism for sustained jaguar communication and coordination

The project will help to reinvigorate a coordinating mechanism that was originally established in 2009. The Ministry of Fisheries, Forestry, the Environment and Sustainable Development will lead this National Jaguar Working Group. The group will also include representatives of the organizations (mostly NGOs) responsible for managing protected areas in the project landscapes. Participation by other Ministries will be determined during the first year of the project, when a consultant will be recruited to define the ToR and protocols guiding the work of the group. Development of a terms of reference and protocols to guide the work of the group will be supported. The group will help to coordinate efforts in a number of areas, including: (i) maintenance of yearly monitoring and camera trapping efforts, database updates and records; (ii) record keeping and updating of jaguar – cattle conflict situations throughout the country; (iii) enforcement issues related to jaguar and prey hunting; (iv) funding constraints and grant applications, and; (v) assessing research permit proposals on jaguars and prey.

The following indicative activities are expected:

4.2.1 Support the functioning of the National Jaguar Working Group

4.3 Project monitored and evaluated

During the preparatory phase, significant outreach was made to indigenous groups who will be impacted by project activities under component 3. These consultations will be complemented by a process to obtain full FPIC of the final project document during the inception phase. The project includes three safeguard plans—gender, indigenous peoples and stakeholder—along with associated risks. Together, these will require careful monitoring. Finally, in the final months of the project, a terminal evaluation will be conducted.

The following indicative activities are expected:

4.3.1 Inception workshop and FPIC under Indigenous People’s Plan

4.3.2 Monitoring of all stakeholder plans and risks

4.3.3 Project evaluation conducted

4) Alignment with GEF focal area and/or impact program strategies;

The project is closely aligned with the strategies put forward by one GEF focal area and one impact program, as follows

- BD 1-2.a Mainstream biodiversity across sectors as well as landscapes and seascapes through Global Wildlife Program for sustainable development: The project's close alignment with the GWP extends to multiple aspects of its strategy. It addresses several of the barriers identified by the GWP theory of change, including shortcomings in institutional frameworks and management and insufficient community engagement. The project structure is based largely on the GWP model, including components for wildlife conservation, reducing human wildlife conflict and combating wildlife crime and unsustainable hunting. As such, it will contribute significantly to GWSP outcomes (see section 1.c below for additional details).
- BD 2.7 Address direct drivers to protect habitats and species and Improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate: One of the critical issues facing Belize's protected area estate, like many around the world, is the gradual fragmentation and isolation of its constituent parts. This pattern is placing significant pressure on jaguars, as a wide-ranging apex predator. The project recognizes the importance of the protected area system to the jaguars' long-term survival in the country, as well as the need to manage and maintain connective landscapes. Addressing key additional drivers such as hunting and human - wildlife conflict are equally important elements of the strategy.

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

While most activities regarding biodiversity protection requiring very localized application (e.g. small scale site protection of wetlands or micro-ecosystems), management of jaguars requires national management and communication. Most biodiversity issues therefore do not require local NGOs to collaborate, communicate or standardize actions in relation to neighboring areas. They frequently become highly engrossed in the preservation of very localized areas at the cost of larger picture thinking. The necessity for large-scale thinking—including accounting for global benefits and values—for jaguar management provides the perfect binding mechanism, assuring that monitoring and management activities of the species takes place under a centralized system, with the different stakeholders having an essential role in contributing to, and participating in decision making on, such joint activities. Management will only succeed in total if all contribute

their data and assist with building expertise in this regard. The building of systems of national monitoring and management will provide opportunities for any new entity (outside international or local NGO) to contribute and become part of the combined effort, while learning from a rapidly developing network of expertise.

The above logic is clear within each of the four components, as follows:

Component 1: setting up a national monitoring network within the larger NGOs, allowing outside new contributors to add data and thus easily request data from the developed system to contribute and learn. Existing members will increase their knowledge capacity with increasing input in both time (more years of monitoring in the same location) and space (more cameras in different locations). This network will be the first national monitoring and management unit truly sampling the full extent of the jaguars' range in the country, bringing together all on the ground stakeholders within a single network. This will allow Belize to learn about jaguar natural history and ecology at the fundamental population scale, which has not been possible under the baseline. It will also benefit Belize as an ecotourism and nature / wilderness stronghold, spearheading issues of knowledge building and science-based monitoring and management.

Component 2: the interface between jaguars and the rural, human-dominated landscape is becoming blurrier with weakening buffer areas and jaguars forced to prey on livestock. This is happening all over Belize. Here any lesson learned at the local scale can feed into national and global knowledge, with contributors to a jaguar network learning about successes and mistakes on jaguar conflict resolution and capture of problem jaguars in the North.

Component 3: most hunted game species are important jaguar prey, and hunting is a big issue all over Belize. Here again the network and data-sharing assures that all interested stakeholder parties can learn from the proposed intervention in the South, and implement and research similar subjects in their areas of interest.

Component 4: provides the opportunity to circulate these issues within and beyond the borders of Belize, providing funding to assure dissemination.

6) Global environmental benefits (GEFTF)

By focusing on jaguars, an apex predator, the project ensures that scale and the landscape-level needs of a wide-roaming top predator remain not just high on the conservation agenda, but a fulcrum around which conservation efforts can turn. In helping to assure the maintenance of jaguars across the Belizean landscape, reducing lethal sinks, and creating systems for a healthy prey base, the project works to ensure a range of global benefits associated with Belizean ecosystems. As identified in the project's theory of change, the project will work in opposition to the following causal pathways: (i) fragmentation of forest areas and jaguar genetic erosion; (ii) conflict, including retaliatory killings of jaguars in mosaic landscapes, and (iii) potential that hunting and bushmeat consumption become ecologically unsustainable or that commercial trade in jaguar parts takes hold. This will include support for strengthening protected areas covering 184,389 ha.

7) Innovativeness, sustainability and potential for scaling up

Innovativeness: The project takes an innovative approach in its use of a single iconic apex predator as a fulcrum around which to design its activities. The logic of this approach depends on the jaguar's status as an umbrella species, its importance in local culture and conservation and its unique potential to support wildlife branding efforts. The jaguar's need for connectivity has inspired the project's emphasis on maintaining the integrity and connections among the country's remaining wildlife corridors.

The current development of AI algorithms to automatically process camera trap images can be considered a game changer in terms of processing incoming camera trap data. Where previously, surveys required months of processing individual images into spreadsheet format, now automated systems extract the necessary meta-data of the downloaded images (location, date, time), while equally through machine learning classify the image up to species level (e.g. human, vehicle, jaguar, tapir etc). Individual pattern recognition software can equally process images of species with features allowing individual identification. The jaguar has particularly suitable rosette patterns for easy individual identification, meaning we can track individuals wherever they are photographed in Belize when all images are processed within a single connected database. The automated system will reduce processing time from months to days. This has never been done anywhere across jaguar range at the proposed scale, giving a government and its partners the capacity to build a database tracking the fate of individuals across the country through camera sampling across the protected area system and outside in virtual real-time.

Sustainability: The national project structures set up will be financially sustained through various mechanisms. Some larger international wildlife NGOs are, and have been, highly active in Belize, working in close collaboration with many of the on the ground NGOs. For example, Wildlife Conservation Society (WCS) is growing its terrestrial programme capacity in Belize, and Panthera has been active for a considerable time. Large portions of the camera trap network are assisted and managed by their activities, together with a substantial number of international university research groups. Here, through the jaguar group, fundraising capacity will be mobilized to assure sustained maintenance of the activities.

This project will be the impetus to show the successful operation of national systems. The assurance of sustained data and wildlife management posts will be done through long-term MoUs with the larger NGO partners, guaranteeing commitment from these parties and assuring integration into government plans and roles through their expert guidance. On previous occasions, the FD has absorbed NGO personnel on temporary contract working with the government. Through this mechanism, the FD has absorbed well-trained people, working through NGO projects, within their ranks and retained the knowledge gained through these temporary projects. The trained people were employed and integrated within a larger project process and the knowledge retained (two jaguar conflict officers from Panthera are currently working in the department).

While the Forest Department is working with other information systems outside of wildlife projects (e.g. REDD+ forest plot management), the wildlife projects are the furthest

advanced. Here, the wildlife system can be embedded within the larger planned total national systems for which larger international funds are sought. All components have an overarching information and database system to it. This project will function as a spearhead to create traction for mobilizing such funding and thus allow embedding of the monitoring and wildlife management within these emerging national systems. This is possible in part due to the sustained support of international NGOs. As Belize has a strong tropical research destination tradition for European and US universities, research fees for permits can be used to leverage funds to use and control data streams created from such activities. Payment for database management and conflict resolution is already on the table as a potential item of payment. Here again, the jaguar working group can be key for regulating such activities and assuring the wise use of fund leveraging.

Potential for scaling up: Belize is a relatively small country and a significant portion of project activities, e.g. the wildlife monitoring system, are national in scale. In these cases, opportunities for scale up / replication are mainly at the sub-regional level, with the support of the project's knowledge sharing elements under Component 4. In the case of wildlife – cattle conflict reduction (component 2) and sustainable hunting (component 3) efforts, the National Jaguar Working Group will serve as a key vehicle for national-level dissemination and uptake.

Ib. Project Map and Geo-Coordinates. Please provide geo-referenced information and map where the project interventions will take place.

Maps of the the three project landscapes are presented in Annex D below.

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

The project closely reflects the Global Wildlife Program (GWP) Theory of Change (TOC). The project structure is aligned with three of the four GWP pillars, namely Conserve Wildlife and Habitats, Promote Wildlife-Based Economy, and Combat Wildlife Crime, as well as with several of the activities/outputs outlined in the TOC. In turn, these activities will contribute to the short-term outcomes established for the GWP, such as landscapes with improved biodiversity management practices, increased incentives to protect wildlife and capacity to co-exist with wildlife, and strengthened institutional capacity to combat IWR, among others. Over the medium term, the project will contribute to the GWP outcomes of wildlife conservation and crime prevention, and in the long-term to the outcomes of global biodiversity conserved, livelihoods for local communities improved, and resilience enhanced. The project, together with other possible projects emerging following the Jaguar 2030 High-level Statement and Roadmap, plans to make full use of GWP coordination processes and structures for stimulating action across the jaguar range. The present project is expected to be a cornerstone in these efforts.

As a child project under the Global Wildlife Program (GWP), the present project will maintain especially close ties with other child projects under the GWP, thereby enhancing overall GWP impact. It will support the diffusion of knowledge, know-how and ingenuity: (i) across the Jaguar Corridor, which extends across 16 countries and 6,000 km², and (ii)

with other projects and regions that may be addressing the conservation of big cats or other umbrella species.

Table 1: GWP alignment

GWP components	GWP program outcomes	Key project contributions to GWP outcomes	Key project targets
<u>Component 1</u> Conserve wildlife and enhance habitat resilience	<ol style="list-style-type: none"> 1. Stabilization or increase in populations of, and area occupied by, wildlife at program sites 2. Areas of landscapes and terrestrial/marine protected areas under improved practices and management effectiveness (METT for PAs) 3. Strengthened long-term partnerships, governance, and finance frameworks for PAs 	<ol style="list-style-type: none"> 1. Setting up major monitoring projects, with potential follow up enforcement, in key vulnerable areas of the protected area system 2. Using species monitoring data to strengthen enforcement efforts, creating management plans for vulnerable areas. 3. Actively search and bring together local and international management stakeholders, and solidify their roles within the management plan 	<ol style="list-style-type: none"> 1. Understanding baseline abundance and distribution of jaguars in target area and assure stabilization or improvement based on acquired data. 2. Provide better management structure of vulnerable core jaguar areas in Belize. 3. Long-term stewardship of the key vulnerable areas.
<u>Component 2</u> Promote wildlife-based and resilient economies	<ol style="list-style-type: none"> 1. Additional livelihood activities established 2. Increased Human-Wildlife Conflict (HWC) strategies and related site interventions deployed 	<ol style="list-style-type: none"> 1. Small microloan program to provide incentives for reduced conflict. 2-4. Certification program for local tour guides to become involved in wildlife monitoring as a tourist-based activity 5. Local team of capture experts increase capacity to quickly and decisively deal with jaguar conflict situations 	<ol style="list-style-type: none"> 1-4 Change local economy to align with improved ecosystem function needs for improved survival of jaguar individuals. 5. Provide local stakeholders with confidence that local managers can deal with wildlife problems effectively.
<u>Component 3</u> Combat wildlife trafficking	<ol style="list-style-type: none"> 1. Decreased number of target species poached (i.e. use of SMART tools) 		
<u>Component 4</u> Reduce demand	<ol style="list-style-type: none"> 1. Increased number of tools used to advocate against consumption of illicit wildlife products and promote ethical behavior 	<ol style="list-style-type: none"> 1. Introduction of tool, allowing local stakeholders to understand and self-regulate their own game meat consumption. 	<ol style="list-style-type: none"> 1. Work towards sustainable use of game species in relation to local protein and cultural needs
<u>Component 5</u> Coordinate and enhance learning	<ol style="list-style-type: none"> 1. Enhanced understanding of wildlife as an economic asset 2. Strengthened Public-private partnerships for promoting wildlife-based economies 3. Enhanced upstream sector engagement 4. Improved coordination 	<ol style="list-style-type: none"> 1. Accurate and precise quantification of game meat consumption allows quantification of economic value, protein needs, and livelihood value 2. Introduction of expert monitoring of wildlife in 	<ol style="list-style-type: none"> 1. Embedding knowledge gained within the wider international community. 2-3. Work towards sustainable use of game species in

GWP components	GWP program outcomes	Key project contributions to GWP outcomes	Key project targets
	<p>among countries, donors, and other key stakeholders engaged in the implementation of the GWP</p> <p>5. Increased global policy dialogue and engagement on IWT and wildlife for sustainable development</p> <p>6. Enhanced GWP management and monitoring platform</p>	<p>relation to game meat offtake, will start dialogue regarding sustainability, use, and future management.</p> <p>5. Setting up conferences/workshops regarding lessons learned on setting national networks</p> <p>5. Indicating to global wildlife community the lessons learned on monitoring and management of platforms and national wildlife conflict management.</p>	<p>relation to local protein and cultural needs</p> <p>5. Show further to GWP how Latin American conservation varies from African and Asian species conservation and ecosystem management.</p>

2. Stakeholders

Stakeholder consultations were undertaken throughout the project preparation phase. During these consultations, stakeholders were informed about the project and its evolving strategy, their views were taken on board and their potential roles in project implementation were assessed and confirmed. Forty-six stakeholders were identified and categorized by project component, region and stakeholder type. They include communities, academia, government agencies, NGOs and social groups. Depending on an assessment of power and interest, each stakeholder was assigned to one of the following categories:

- **Keep informed:** Provide stakeholders with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.
- **Consult:** Obtain stakeholder feedback on project analysis and design, alternatives and/or decisions and consider stakeholder concerns and aspirations
- **Involve:** Include stakeholders in reaching all key project decisions and ensure stakeholder input incorporated
- **Collaborate:** Partner with stakeholders in reaching all key project decisions and ensure stakeholder input incorporated to maximum extent possible.
- **Empower:** Transfer control over decision-making, resources and activities to stakeholders.

Based on the above consultations, a Stakeholder Analysis and Engagement Plan has been prepared and is included as **Annex 8** of the **Project Document**. The plan identifies and details engagement plans for key stakeholders associated with each project landscape and component. Six levels of engagement were identified: monitor; keep informed; consult; involve; collaborate, and; empower. For each output, relevant stakeholders were identified and their target level of engagement was identified. The table below provides one example, for the case of establishing a data sharing protocol under Output 1.1.

Activity	Level of engagement	Stakeholder	Actions
(D) In conjunction with key partner/stakeholders, establish a data-sharing protocol/framework (MOU/ToR Format)	Empower	Panthera*	Lead session(s)/interview(s) to define and develop the protocol
	Collaborate	Corozal Sustainable Future Initiative (CSFI)	Participation in working session(s)/interview(s) to define protocol
		Ya'axche Conservation Trust	
		Forest Department	
	Involve	Virginia Polytechnic Institute and State University	Participation in session(s)/interview(s) to validate protocol
		Belize Audubon Society	
		Friends for Conservation and Development (FCD)	
Programme for Belize (PFB)			
(E) Procure and install data management platform	Involve	Panthera* and Project Team	Oversee the installation process

3. Gender Equality and Women's Empowerment.

The total population in the areas of intervention is 15,113 spread out across a total of 26 communities.⁴ In this area, the combined female population (7,393) is less than the male population (7,720).⁵ Typically, Belize's rural populations live near the country's natural resource base and given that females are more likely to live in rural areas, they are also likely to live in close proximity to forest resources.

During the PPG, a gender analysis was conducted and a gender action plan developed on the basis of this analysis. Key issues identified in the gender analysis include the following:

- Wildlife attacks on farms directly affect the livelihood and earning capacities of male and female farmers. For smallholders, the impact is greater as they are slower to recover following the loss of their livestock. The constant threat of wildlife attacks limits the options of farming households for income generation, especially if they must then spend more time in one place to protect their livestock. For women, the loss of smaller animals such as poultry directly impacts their ability to earn incomes from the sale of meat and eggs.
- Men and women alike look to informal ways to cope with, and respond to, wildlife conflicts. They do so by relying on their own internal knowledge and on traditional practices and experiences. Despite being farmers within close

⁴ This population data is based on data from the Statistical Institute of Belize (2016) Abstract of Statistics 2016.

⁵ *Ibid.*

proximity of forests, men and women lack standardized knowledge and practice in dealing with wildlife conflicts.

- When responding to calls about wildlife attacks, Agriculture as well as Forestry Officers are likely to meet women at home and not male farmers. In this regard, women are effectively the frontline contact for wildlife conflicts response and mediation. They are the ones to get information first-hand from technical officers about what can be done to manage conflicts. However, given their roles in the home, they are unlikely to directly implement the suggested actions. Women thus have an informal role as intermediaries in the existing system of response between the officials and the male farmers. Increased recognition of the role that women play can help to improve the currently inadequate response mechanism. Furthermore, building the capacities of women to manage the communication with farmers can build overall household capacities to resolve wildlife conflicts.
- Men are considered to be the owners of the family farm, as women are less likely to own titled land.⁶ Despite their lack of land ownership, however, women like men undertake other economic activities to increase and diversify their income. In the surrounding northeastern communities, there is a common practice among women to engage in small scale economic groups, which are often women's groups. These groups are social structures that help women pool their resources, skills and expertise to generate much needed income. Generally, women who are active in these groups use skills such as sewing, jewelry making, and cooking. They also generate an income from sales in cosmetics, shoes, and telemarketing. In some instances, husbands who don't fish assist their wives with the production of local craft products. In the project landscapes, there are five (5) women's groups in the northeastern region and one (1) in the Maya Golden region.

Implementation of the project's gender action plan will contribute to gender equality and women's empowerment under each project component as follows:

- Components 1 & 3: Scientific data, primarily captured from camera traps, will provide the basis for the formulation of environmental communication at the community level, which can accurately inform on-farm practices of men and women. This means, for example, that farming and production practices can be better planned in these regions. This is an important consideration for food security and the conduct of traditional, cultural practices in a sustainable manner.
- Component 2: This component offers two main avenues for gender-specific action for a wildlife-friendly economy. First, in the area of empowerment and decision-making, the project will provide for the institutionalization of a rapid and effective response protocol that is easily understood and accessible by both men and women at the community level. This intervention will enhance the acceptability of women's formal engagement in wildlife conflict mediation and decision-making in the communities. In doing so, the project will usher in a soft, inclusive approach to conflict with jaguars with more trained human resources at the

⁶ Caribbean Development Bank, Country Gender Assessment, 2016.

community level. Such an approach can also gain community buy-in, ownership and cooperation in the management of problem jaguars and other wildlife. Second, the project will provide an opportunity for communities to directly engage in sustainable practices associated with the brand of the jaguar. For women, the project can support and promote sustainable production activities. Men as well as women can generate incomes from the production of honey from the nearby mangrove forest, and produce jaguar-branded souvenirs and gift items in the growing tourism industry, especially in the northeastern region of Belize.

- Component 4: The project will support the documentation of Belizean women’s experience as partners in conservation and sustainable resource use for viable jaguar habitats. Knowledge products emanating from this effort should provide for the documentation of experiences in the northeastern and the Maya Golden regions in particular. This research can be co-developed with women in the communities at the inception of the project.

Finally, the project’s results framework includes gender-responsive indicators.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women’s empowerment? (yes /no) If yes, please upload gender action plan or equivalent here.

A Gender Action Plan is provided in **Annex 10** of the **UNDP Project Document**

The project is expected to contribute to gender equality in the following results areas:

- closing gender gaps in access to and control over natural resources;
- improving women’s participation and decision making; and or
- generating socio-economic benefits or services for women.

Does the project's results framework or logical framework include gender-sensitive indicators? (yes /no)

4. Private Sector Engagement. Elaborate on the private sector’s engagement in the project, if any.

The private sector is an important project stakeholder. Privately owned land within the three project landscapes—157,563 ha of which are located outside of protected areas—includes the following types:

- Private protected areas (Components 1 and 2) are owned and managed by consortia. The Northern Biological Corridor will be managed as a private protected area, with expected high security and excellent management standards.
- Cattle grazing lands, including private ranches (Component 2)

- Lands where indigenous people have traditional hunting rights (Component 3)
- Privately held farmlands (Components 1-3)

In addition to private land holdings, the private sector is engaged in tourism activities in a number of protected areas within the landscapes.

Representatives of the above groups were consulted during the PPG. These included:

- **The Belize Tourism Industry Association**, formed in 1986 by a group of individuals who foresaw the importance of the tourism industry and realized the need for a channel through which tourism concerns could be expressed. The association was incorporated under the laws of Belize and became one of the largest non-profit organizations, with about 600 members from all six districts. In 2006, the organization was registered under the NGO Act. The Association plays an important role in connecting the private and public sectors.

- **Belize Livestock Production Association** is a private (not for profit) organization established in the 1970s. BLPA is based in the City of Belmopan in Cayo District. The organization serves as the main oversight entity of livestock producers and the implementing body of the Meat and Livestock Act in Belize.

The above private sector associations, and others will continue to be engaged during the full project (see **Annex 8 of Project Document** for additional details).

5. Risks

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
1	<u>Government agencies / institutions may not effectively engage and coordinate the participation of the wider targeted critical population:</u> The success of this project is closely tied to the ability of implementing entities to ensure communities' buy in and support as well as their ability to broker effective public/ private partnerships, as connectivity of systems and effective wildlife management is dependent on the inclusion of non-state lands within established networks and the engagement of communities and land owners in wildlife conflict resolution measures. (Source: SESP Principle 1: q4; Standard 6: 6.1, 6.2)	Political	I = 2 P = 4 Risk level = Moderate	The project has included in its design a stakeholder (community, indigenous and private sector) engagement plan supporting project interventions to minimize this risk along with an Indigenous Peoples Planning Framework (IPPF). The project has allocated significant budgetary resources (see Budget Notes #5, 8, 10, 11, 18 and 20) to ensure the full participation of key groups in project implementation.	Project Manager, stakeholder engagement specialist and safeguards consultant
2	<u>Project implementation reproduces existing discrimination against women:</u> Within the national setting the role of women in community	Social	I= 3 P= 2 Moderate	The Gender Action Plan (GAP) of this project proposes empowerment and decision-making spaces, livelihood opportunities and environmental	Project manager and safeguards consultant

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
	<p>level conservation efforts is not sufficiently valued or officially recognized.</p> <p>(Source: Principle 2: Standard 2)</p>			education for women beneficiaries and stakeholders in response to this risk. Gender-specific activities and indicators strongly encourage positive impacts by the project.	
3	<p><u>Any eventual limits on wildlife harvests might be interpreted by some as limiting customary rights to wildlife resources:</u> This risk has been identified because the project, under Activity 3.2.1, will include the development of community resource use management plans to support efforts by indigenous communities to sustainably manage wildlife resources within their area. In the context of increased human population and hunting pressure, the project aims to ensure that communities are empowered to use wildlife sustainably by providing them with instruments to self-check the status of available wildlife for offtake. This requires setting up monitoring systems and help with analysis on potential level of sustainable offtake in relation to wildlife carrying capacity.</p> <p>(Source: Principle 3; Standard 5: 5.4; Standard 6: 6.1; 6.2)</p>	Environmental	<p>I = 3 P = 2 Moderate</p>	Under Component 3, the project seeks to establish processes and structures within which communities may exercise their customary rights within a broader context of sustainable development. The project design ensures that communities are fully engaged and participating in all processes of wildlife population and hunting assessments and that they have direct responsibility for designing and overseeing implementation of, regulatory systems designed to ensure the sustainability of harvests. In so doing, the project promotes a high level of community-level engagement and management of natural resources. Together, these measures will serve to address any concerns that potential limitations on harvests represent anything other than communities increasing their resource management capacities and exercising responsibilities for same. Per the project's Indigenous Peoples Planning Framework (IPPF), however, this risk and all other relevant risks will be further assessed and the necessary management measures (including FPIC protocols) will be included in the project's Indigenous Peoples Plan (IPP).	Project manager
4	<p><u>Project support for conservation of wildlife as an economic resource for indigenous populations may lead communities to impose limitations on their hunting, via catch quotas or other measures, with short-term reductions in harvests (but probable long-term gains):</u> Communities in the project region rely to some extent on game species for household food security and, to a significantly lesser extent, livelihoods. The growing population in the area means</p>	Social	<p>I = 3 P = 4 Moderate</p>	As with any intervention aimed at encouraging sustainable use, short-term limitations on consumption are designed to enable long-term maintenance of same, in this case via maintenance of viable wildlife populations. The project is designed to collect, share and disseminate data in collaboration with the communities. This data and information will be used jointly with the community to set quotas and/or seasonal access. Procedures for doing so will be developed as part of the	Project Manager

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
	<p>that offtake levels and long-term sustainable use are at risk. The project ensures long-term livelihood opportunities through the institution of systems to maintain wildlife populations. The implementation of instruments of feedback loops on the sustainability of the activities under their own control means that this can be regarded as an empowering instrument, assuring long-term management of wildlife presence in the area.</p> <p>(Source: Principle 3: Standard 5: 5.4; Standard 6: 6.3, 6.5, 6.9)</p>			IPP, at which time this risk will be further assessed.	
5	<p><u>Capture of jaguars poses risk of bodily harm to personnel both trainees and trainer, and jaguars:</u> The risk is real and almost completely related to the expertise of the trainer and capture expert. The trapping requires high expertise in terms of the physical capture mechanisms and control of timing of capture, knowledge of jaguar behavior when captured, high veterinary knowledge about jaguars, and ability to take charge and control the situation in terms of people trained around him.</p> <p>(Source: Principle 3: Standard 3.7)</p>	Health and safety	I = 4 P = 1 Moderate	Belize has a strong record of safe jaguar captures with several highly experienced trappers, having worked within Belize. The trapper tentatively identified for the project likely has the highest number of safe live release captures of jaguars in the world, has worked previously with CSFI in the North, and understands the landscape and culture of personnel. He has extremely rigid safety protocols that will be implemented with care, and with this we feel the project can place the risk of accidents as extremely low with confidence. These will be carefully chosen and will have a proven record of no harm to jaguars, themselves, and involved personnel.	Project manager
6	<p><u>Project activities and outcomes could be vulnerable to the potential impacts of climate change:</u> Corridors (and increased landscape connectivity more generally) are the most frequently recommended conservation strategy to protect biodiversity as climate changes. Climate change, however, can influence natural corridors and connectivity of systems. Those managing corridors must consider range shifts, as well as alternative corridors which provide paths for individuals to recolonize habitats where populations have been lost.</p> <p>(Source: Principle 3; Standard 2:</p>	Environmental	I =3 P=3 Moderate	This risk is managed within the project design by further bolstering corridor systems delineated formally through government decree and by supporting actions within productive landscapes to further benefit connectivity.	Project manager and gender officer

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
	2.2)				
7	<p><u>Trail cutting for camera trapping will increase the possibility of access by hunters to sensitive habitats and wildlife, including within and adjacent to protected areas</u>: The project target landscapes are located within ecologically important areas and within, or adjacent to, formally protected areas. While the project design aims to improve the effectiveness and value of this habitat for its constituent biodiversity, including jaguar and prey species, some activities, such as ecotourism and creation or expansion of trails to support camera trapping, may include <i>slight</i> risks of increased impacts associated with human presence.</p> <p>(Source: Principle 3; Standard 1: 1.1, 1.2)</p>	Environmental	I=2 P=2 Low	Trail design will ensure minimal disturbance to the ecosystem, in line with conservation biology criteria. Project staff, who understand risks created by enhanced access, will take action to safeguard against this, e.g. minimize trail cutting to minimal requirements, assuring trails easily overgrow within short period.	Project manager
8	<p><u>Project's approach to promoting cultural heritage, in the context of ecotourism, could result in unintended social and cultural consequences</u>: Belize promotes cultural tourism. In an effort to introduce opportunities for non-traditional livelihoods within the project area, and to further engage local, mainly Creole communities in conservation efforts, the project proposes to further develop and scale up the model being piloted under Output 2.2 which presents a hybrid cultural and ecosystem-based tourism.</p> <p>(Source: Principle 3: Standard 4: 4.2)</p>	Social	I= 2 P= 2 Low	This risk is assessed as relatively low, first because tourism activities will not take place in sites having indigenous communities. In addition, the project is not introducing a new avenue of activity, but helping communities participate better and benefit from existing tourism packages. Finally, Belize has significant existing safeguards, including a tourism board and industry association. Nevertheless, the project has been designed to monitor and maintain ongoing and close engagement with participating communities, ensuring that project-supported interventions serve their needs and that cultural practices are fully respected.	Project manager
9	<p><u>Due to the COVID-19 pandemic, there may be risks to individuals participating in project activities, including consultations, until the crisis is under control</u>: The spread of the novel Coronavirus has created new risks to project implementation.</p> <p>(Source: Principle 3: Standard 3:</p>	Health and safety	I = 3 P = 3 Moderate	At the time of writing, reported cases in Belize are few. However, this will of course change and it is extremely difficult to predict the degree of future spread. Should future circumstances warrant, and in order to mitigate risk, travel by central office personnel in Belmopan to the project sites may be cancelled and meetings	

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
	3.6			with local and strategic partners will be held using virtual platforms. The fact that the country has good internet connectivity makes it possible to implement these alternative forms of work with relative ease. Activities in the field that require the presence of project personnel or staff from partner organizations (especially activities involving travel for multiple staff) will be postponed if necessary. Instead, virtual communication will be promoted using mobile phone networks to exchange messages and images, and virtual forums will be held. Virtual meetings will be held with local beneficiaries' associations, using the proper prevention measures and only when necessary, at locations that have the required connectivity. This will ensure a reduced number of participants to those who are considered essential. On a quarterly basis, project progress will be assessed and activities will be rescheduled as needed.	
10	<u>The risks associated with the seed funding (output 2.2) are currently unknown because the specific alternative livelihoods will be selected and designed during the project's implementation</u>	Social	I = 4 P = 2 Moderate	During the first year of implementation, the project will conduct livelihood analysis/ assessments to establish sustainable livelihood alternatives through a thorough stakeholder consultation process within the buffer communities of the northern "Jaguar Corridor". Once defined, such alternative livelihood activities will undergo the environmental and social risk screening process following the UNDP SES procedure. If risks are identified, the project will develop the appropriate management measures and plans, such as a Livelihood Action Plan to avoid, reduce or mitigate the impact of such risks.	

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.

Roles and responsibilities of the project’s governance mechanism:

Implementing Partner: The Implementing Partner for this project is the Belize Forest Department of the Ministry of Fisheries, Forestry, the Environment and Sustainable Development (MFFESD).

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The project will be implemented using National Implementation Modality (NIM). UNDP has assessed Forest Department capacity to carry out the functions and activities of the project using the Harmonized Approach to Cash Transfers (HACT) methodology. The HACT micro-assessment found that Government rules and procedures are in accordance with international standards and practices, allowing full accountability for use of UNDP and other donor resources.

The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

- Risk management as outlined in this Project Document;
- Procurement of goods and services, including human resources;
- Financial management, including overseeing financial expenditures against project budgets;
- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

The Forest Department will be supported in its implementation by the entities described below⁷:

Panthera: Panthera is an international, non-governmental organization focused on the global preservation and management of wild cat species. Panthera’s work in Belize is focused primarily on the jaguar, maintaining healthy prey populations and jaguar range connectivity, primarily through reducing jaguar conflict with livestock growers. Panthera is based in Mayflower Bocawina National Park, Belize. Panthera will play a key role, working with the Forestry Department, in the provision of technical guidance

⁷ This list may be amended during project implementation by approval of the Project Board.

in the implementation of component 1 for development of the Belize wildlife monitoring network and application in the central corridor.

Corozal Sustainable Future Initiative (CSFI): CSFI is the Government’s primary partner in managing the Northern Biological Corridor, which is in the process of being reshaped as a protected area. In partnership with the Forestry Department, CSFI will spearhead work to establish a response team for wildlife – jaguar conflict. It will also support the project’s efforts to engage with local communities in the development of wildlife-friendly economic activities. CSFI will both provide technical backstopping for the implementation of Component 2 and will be directly responsible for the implementation of USD 244,213.

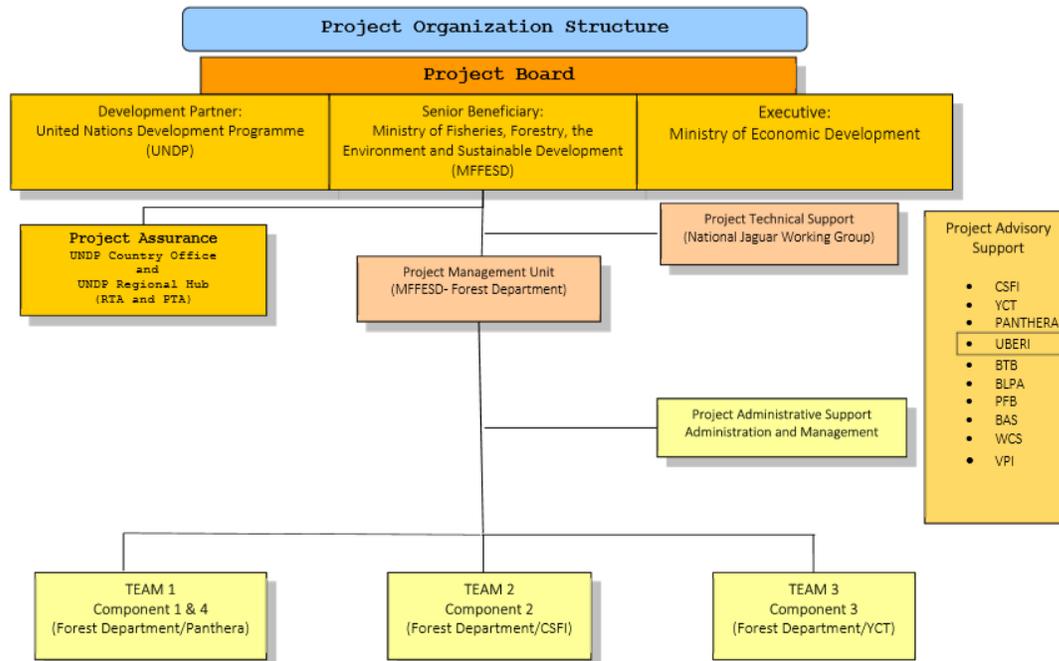
Ya’axche Conservation Trust (YCT): YCT will play a central role, in association with the Forestry Department, as responsible party under Component 3. YCT has a consistent, long-term presence in the southern corridor where activities related to sustainable hunting will take place. It has experience implementing similar projects in this area and strong relationships with the area’s indigenous communities. Its Board of Directors includes representatives of the indigenous communities. Ya’axche will both provide technical backstopping for the implementation of Component 3 and will be directly responsible for the implementation of USD 155,213.

The above stated non-governmental entities are responsible for budgets less than US\$300,000, therefore no HACT assessments have been prepared for them. The entities were subjected to the CSO Capacity Assessments as a part of the stakeholder engagement process (see **Annex 8 of Project Document**).

Project stakeholders and target groups: The project will establish an advisory mechanism through which ten organizations not directly participating as members of the Project Board will have a voice in project decision making (see Figure 2 below). This advisory support will be provided on an ad hoc basis as well as through semi-annual consultation meetings.

UNDP: UNDP is accountable to the GEF for the implementation and financial oversight of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Board/Steering Committee.

Figure 2: Project organizational structure



The Project Board (also called Project Steering Committee) is responsible for taking corrective action as needed to ensure the project achieves the desired results. The current board is a tripartite board; however, the possibility of expanding membership will be made following project start up. In order to ensure UNDP’s ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
- Agree on project manager’s tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager’s tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;

- Ensure coordination between various donor and government-funded projects and programmes;
- Ensure coordination with various government agencies and their participation in project activities;
- Track and monitor co-financing for this project;
- Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
- Appraise the annual project implementation report, including the quality assessment rating report;
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
 - Review combined delivery reports prior to certification by the implementing partner;
 - Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
 - Address project-level grievances;
 - Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

The composition of the Project Board must include the following roles:

- a. Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive will be the representative of the Ministry of Economic Development.
- b. Beneficiary Representative(s): Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The Beneficiary representative (s) is/are: Ministry of Fisheries, Forestry, the Environment and Sustainable Development (MFFESD)
- c. Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partner(s) is UNDP.
- d. Project Assurance: UNDP performs the quality assurance and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides a three – tier oversight services involving the UNDP Country Offices and

UNDP at regional and headquarters levels. Project assurance is totally independent of the Project Management function.

Project extensions: The UNDP-GEF Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs during the extension period must be covered by non-GEF resources.

The project will create synergies, and coordinate, with several donors active in combating wildlife trade. WWF is currently initiating its regional jaguar program, with activities in Guatemala, Belize, and Mexico. They have been informed and are on board with all ideas and will contribute towards national database set up and management. The UK government and German bank are heavily involved in Belize and are regularly consulted and informed regarding the set up of national database and monitoring systems. Proposals for increased involvement of UK government in terms of funding will be considered to merge and incorporate monitoring and enforcement, into single systems, where possible.

Coordination with other GEF-financed projects: Under component 4, the project will liaise closely with projects funded under the GWP. Particular emphasis will be paid to jaguar-focused projects currently under development in Ecuador and Panama. Key organizations involved in these and other jaguar projects, including Panthera and WWF, will be engaged.

7. Consistency with National Priorities.

The project is consistent with the National Biodiversity Strategy and Action Plan (NBSAP), which highlights several areas addressed by the project: (i) the need for conservation to be based on sound knowledge; (ii) the need for capacity building and strengthening capacity, and (iii) the PA system's need a more systemic approach to help balance out financial and other capacity related differences operating across individual sites. In particular, the project supports achievement of national targets that correspond / contribute to the following Aichi targets:

Target 1: Awareness

Target 4: Sustainable production

Target 5: Habitat loss

Target 7: Sustainable land management

Target 15: Ecosystem resilience

8. Knowledge Management.

The project will pay close attention to knowledge management, which will take place at multiple geographic and thematic levels:

- *Within the Global Wildlife Program:* As a child project under the Global Wildlife Program (GWP), the present project will maintain especially close ties with other child projects under the GWP. It will support the diffusion of knowledge, know-how and ingenuity: (i) across the Jaguar Corridor, which extends across 16 countries and 6,000 km², and (ii) with other projects and regions that may be addressing the conservation of big cats or other umbrella species. This will include active participation by project team members in GWP events, including webinars, etc. The project will also pay special attention to gaining and disseminating knowledge gained through the GWP knowledge platform.
- *Within Belize:* Throughout its implementation, the project will develop knowledge sharing products such as: report of lessons learned and good practices, south-south cooperation, triangular cooperation, as well as tools and methodologies that can be applicable to the jaguar as well as other species, at different levels, both locally and nationally. Additionally, the obtained results will be shared with countries in the region (LAC), in a way that contributes to the strengthening of the Jaguar Roadmap 2020-2030 as well as the implementation of the Agenda 2030, mainly associated with SDG 15.
- *Within GEF:* The project will liaise and exchange knowledge with relevant GEF-7 Impact Programs, particularly the Food Systems, Land Use and Restoration Impact Program (FOLUR), which will support transformational shifts in large landscapes by taking into account competing demands for production of staple foods and major agricultural commodities, while harnessing opportunities to protect natural environments and restore degraded landscapes. Given the importance of expanding production of agricultural commodities as a threat to jaguars and a driver of habitat loss within the Jaguar Corridor, the FOLUR programme—both its methodological approaches and the on-the-ground support afforded—will be a target for knowledge sharing by the project.

9. Monitoring and Evaluation.

Monitoring and Evaluation Plan and Budget:			
This M&E plan and budget provides a breakdown of costs for M&E activities to be led by the Project Management Unit during project implementation. These costs are included in Component 4 of the Results Framework and TBWP. For ease of reporting M&E costs, please include all costs reported in the M&E plan under the one technical component. The oversight and participation of the UNDP Country Office/Regional technical advisors/HQ Units are not included as these are covered by the GEF Fee.			
GEF M&E requirements	Responsible Parties	Indicative costs (US\$)	Time frame
Inception Workshop & FPIC	Implementing Partner Project manager	8,000	Within 60 days of CEO endorsement of this project.
Inception Report	Project manager	None	Within 90 days of CEO endorsement of this project.

Monitoring and Evaluation Plan and Budget:			
This M&E plan and budget provides a breakdown of costs for M&E activities to be led by the Project Management Unit during project implementation. These costs are included in Component 4 of the Results Framework and TBWP. For ease of reporting M&E costs, please include all costs reported in the M&E plan under the one technical component. The oversight and participation of the UNDP Country Office/Regional technical advisors/HQ Units are not included as these are covered by the GEF Fee.			
GEF M&E requirements	Responsible Parties	Indicative costs (US\$)	Time frame
M & E of GEF core indicators and project results framework	Project manager	5,000	Annually and at mid-point and closure.
GEF Project Implementation Report (PIR)	RTA UNDP Country Office ⁸ PM/Coordinator/ CTA	None	Annually typically between June-August
Monitoring all risks (UNDP risk register)	UNDP Country Office PM/Coordinator/ CTA	5,000	On-going.
Monitoring of stakeholder engagement plan, gender action plan and indigenous people's plan	Monitoring, participation and safeguard consultant	12,000	On-going.
Supervision missions	UNDP Country Office	None ⁹	Annually
Oversight / troubleshooting missions	RTA and BPPS/GEF	None	Troubleshooting as needed
Terminal GEF Core indicators and METT Tracking Tool	Project manager	2,500	Before terminal evaluation mission takes place
Mid-term Review (MTR)	Independent evaluators	12,500	August 2022
Independent Terminal Evaluation (TE)	Independent evaluators	25,000	November 2023
TOTAL indicative COST		70,000	

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 (LDCF/SCCF)?

The project's promotion of a wildlife-friendly economy will aim to foster co-existence between wildlife and people. Local peoples, including herders, ranchers, farmers, artisans and indigenous peoples, will benefit from ecosystem-based livelihoods in parallel with their active participation in conservation measures and their adoption of non-lethal co-existence practices. Sustainable ecotourism, including cultural / educational and ecosystem-based tourism products, will provide one opportunity for community participation in a wildlife-friendly economy. The project will support the development of a new ecotourism package which can be certified as wildlife friendly and promoted by communities buffering the national jaguar corridor.

⁸ Or equivalent for regional or global project

⁹ The costs of UNDP CO and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

The project will enable landowners to participate in conservation practices as citizen scientists, i.e. as contributors to the national camera trap network. Finally, the project will make seed funding accessible to communities buffering the Jaguar corridor to build new sustainable opportunities for livelihoods. These opportunities will be designed to improve quality of life as well as benefiting conservation in the area.

Indigenous peoples living in the Maya Mountain landscape (see Component 3) will benefit from more sustainable hunting systems. In the context of increased human population and hunting pressure, the project aims to ensure that communities are empowered to use wildlife sustainably by providing them with instruments to self-check the status of available wildlife for offtake. The project design ensures that communities are fully engaged and participating in all processes of wildlife population and hunting assessments and that they have direct responsibility for designing and overseeing implementation of, regulatory systems designed to ensure the sustainability of harvests.

PART IV: ANNEXES

Annex A: Project Results Framework

This project will contribute to the following Sustainable Development Goal (s): <i>SDG</i>			
This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): NATIONAL PRIORITY: Horizon 2030: Belizeans have a deep appreciation and love for Belize’s natural resources and work collectively to protect the natural heritage and the economic value of these natural resources is quantified and officially recognized. GSDS CSF3: Sustained or improved health of environmental, historical, and cultural assets UN MSDF Outcome 8: Inclusive and sustainable solutions adopted for the conservation, restoration and use of ecosystems and natural resources. UNDP CPD Outcome 2: <i>Inclusive and sustainable solutions adopted for the conservation, restoration and use of ecosystems and natural resources.</i>			
	Objective and Outcome Indicators (no more than a total of 21 indicators)	Baseline	End of Project Target
Project Objective: To secure jaguar corridors and strengthen the management of jaguar conservation units through reduction of current and	Mandatory Indicator #1: # direct project beneficiaries disaggregated by gender (individual people)	NA	Male – 7,720 Female – 7,393
	Mandatory Indicator #2: Terrestrial protected areas under improved management for conservation and sustainable use (Hectares)	NA	186,827 ¹⁰

¹⁰ This covers a total of 13 protected areas, as follows: (1) Three forest reserves covering 110,540 ha, targeted for increased management effectiveness based on enhanced data collection, analysis, action planning and implementation under Component 1; (2) five additional protected areas within the Component 1 landscape, totaling 24,545 ha, that will benefit indirectly through enhanced monitoring and knowledge due to participation of managing NGOs in capacity building, camera trap installation and data sharing activities; (3) four protected areas, totaling 12,222 ha, that will benefit from reduced hunting pressures within the Component 3 landscape, and (4) one protected area covering 36,040 ha within the Component 2 landscape. See Tracking tool (separate file) for additional details of these areas.

emerging threats, development of sustainable wildlife economy and enhanced regional cooperation	Mandatory Indicator #3: Area of landscapes under improved practices (excluding protected areas) (Hectares)	NA	157,475 ¹¹
Project component 1	Conserving wildlife and habitats		
Project Outcome 1: Information and data management systems contribute to improved conservation of jaguar and other wildlife at country level, with targeted application in 177,914 ha of Sibun River watershed landscape.	Indicator #4a: Camera trap coverage nationally (OR as % of total jaguar habitat) (Hectares)	380,000 hectares currently covered by camera traps	730,000 hectares
	Indicator #4b: Percentage of camera trap data (existing and new) incorporated into the national database	No national database	At least 80% of existing and new data sets inputted into the national database
	Indicator #5: Level of management effectiveness at three forest reserves	Baseline METT scores Sibun - 37 Sittee - 37 Manatee - 37	End of project METT scores Sibun - 43 Sittee - 43 Manatee - 43
	Indicator #6: Change in the capacity of CSFI, BAS, PfB, FCD, YCT and FD to participate in data capture and management	Baseline score of UNDP Capacity Development Scorecard (out of possible 54) CSFI – 34, BAS – 19, PfB - 13, FCD - 40 , YCT -36, FD - 21.	Target score by project end CSFI – 41, BAS – 30 , PfB - 17, FCD - 42, YCT - 40, FD -35.
Outputs to achieve Outcome 1	<p>1.1 A standardized and integrated national database for wildlife and human presence monitoring, with emphasis on underpinning conservation of jaguars and associated (prey) species.</p> <p>1.2 Approximately 700-900 camera traps installed, complementing, improving and extending existing installations, with an additional effective coverage of 350,000 ha.</p> <p>1.3 A model of population dynamics and movement ecology of jaguars and wide-ranging prey species based on enhanced monitoring data</p> <p>1.4 Three new management protocols and regulatory measures, including a National Jaguar and Prey Policy, Strategy and Management Plan</p>		

¹¹ This consists of the unprotected portions of the three landscapes, which will benefit as follows: (1) Component 1 area (42,829 ha), which will benefit from enhanced wildlife monitoring; (2) Component 2 area (80,873 ha), which will benefit from reduced wildlife-livestock conflict and a more wildlife-friendly economy, and (3) Component 3 area (33,773 ha), which will benefit from more sustainable hunting and reduced risk of illegal hunting activities.

	1.5 Enhanced data and information systems applied to design and initiate implementation of, a landscape management plan within the c. 178,000 ha target area		
Project component 2	Promoting a more wildlife-friendly economy		
Outcome 2: Strengthened systems for responding to jaguar–livestock conflict and for encouraging sustainable ecotourism, with targeted application in Belize’s Northeast forest landscape totaling 125,000 ha.	<u>Indicator #7:</u> Percentage of referred jaguar - cattle conflict incidents in which the reporter is satisfied with the response delivered	Less than 20%	At least 70% of incidents in years 2 and 3 of project
	<u>Indicator #8:</u> # of tour guides and landowners contributing to national camera trap network	0	At least 25 by project end
Outputs to achieve Outcome 2	2.1 Enhanced rapid response protocol and capacities for responding to jaguar-livestock conflict developed and applied in the target landscape 2.2 Training and outreach program for wildlife-friendly economic activities		
Project component 3	Combatting wildlife crime and unsustainable hunting		
Outcome 3: Enhanced knowledge of the current status of the jaguar / prey / game species and hunting activities in 49,475 ha of the Maya Golden Landscape informs regulations for threat reduction and sustainable population management.	Indicator #9: Level of understanding of the dynamics of hunter-prey systems	No system	Level of understanding increased through a model and baseline of hunter-prey dynamics for informed policy and decision making
	Indicator #10: Drafting notes informing amendment of Wildlife Protection Act (WPA)	Current WPA is outdated in terms of open and closed seasons, bag limits (none), sustainable offtake quotas (with or without taking into account natural predation by larger predators like jaguars)	Draft notes for updating WPA
Outputs to achieve Outcome 3	3.1 Model, based on community-level assessments, estimating sustainable game species offtake, including jaguar prey offtake by viable predator populations 3.2 A strategy and action plan for the monitoring, sustainable management and use of game species, including a pilot sustainable hunting quota system, developed and implemented in 6 communities		

Project component 4	Coordinating and enhancing knowledge		
Outcome 4: Enhanced national / transboundary / jaguar range collaboration, knowledge management and communication	<u>Indicator #11:</u> # of lessons shared on jaguar conservation	Limited sharing / exchange / uptake of lessons learned in jaguar conservation	At least 5 case studies documented on lessons learnt and best practices captured and shared nationally and with experts in Mexico, Guatemala and other jaguar range countries.
Outputs to achieve Outcome 4	4.1 Knowledge capture and sharing 4.2 Reinforced national multi-stakeholder mechanism for sustained jaguar communication and coordination 4.3 Project monitored and evaluated		

Annex B: Response to Project Reviews if applicable (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council, and responses to comments from the Convention Secretariat and STAP).

The draft Concept Note was reviewed by GEFSec on 31 March 2019, which provided informal comments. These comments were fully taken into account within the draft results framework and maps of project demonstration sites that were validated during a Project Development workshop held in Belize City in November 2019. These documents, together with a response matrix (see table below), were subsequently shared with GEFSec and discussed in a call in early December 2019.

Responses to GEFSec March 2019 review

Comment	Response
<p>Component 1: Conserve wildlife and habitats</p> <p>In this component, Monitoring and Management Plans are mixed making difficult to understand the thematic scope of the project and the financial and technical viability of the proposed interventions. While Output 1.1. talks about “<i>the establishment of a standardized and integrated system for wildlife monitoring to prevent/reduce poaching and underpin conservation of jaguars and associated (prey) species</i>”, the rest of the outputs talk about a management and monitoring program for three regions: <i>Northern Biological Corridor area and the Rio Bravo Conservation Area</i> (Output 1.2), <i>Central Belize Corridor</i> (Output 1.3) and <i>the Maya Mountain Massive and the remaining forests in Southern Belize and Sarstoon Temash</i> (Output 1.4). <i>Considering the size of the target area (1.1 million ha) and the relatively small budget allocated to all these activities (\$650,000)</i> the project is overpromising and will most likely underdeliver. An investment of \$0.60/ha (without considering the cost of the initial costs of Output 1.1), is unlikely to deliver the Monitoring and the Management of these three regions. No tangible and measurable results on the ground are likely to be derived (and sustained) from this investment. The GEF kindly request reducing the geographic scope of the project and clarify what investments will be made for the management of the reduced target areas (any PAs in the geographies), as well as the recurrent costs associated with the monitoring. Who is going to cover these expenses?</p>	<ul style="list-style-type: none"> The geographic scope of the project was reduced as suggested by the GEF Sec reviewer. The revised scope of the project will cover three target landscapes, one each in northern, central and southern portions of Belize. These target landscapes total approximately 352,000 ha. <p><u>Component 1</u></p> <ul style="list-style-type: none"> The updated component, outcome and outputs aim to demonstrate how monitoring and data management (through camera traps) can make a significant contribution to conservation of wildlife and habitats. While the data management and monitoring system is national in scope, the application to management is site-based and sharply circumscribed in geographic scope. The revised outcome wording aims to make this clear: “Information and data management systems contribute to improved conservation of jaguar and other wildlife, with targeted application in 177,914 ha of Sibun River watershed landscape.” Enhanced monitoring is supported under the revised Outputs 1.1 and 1.2. This work specifically and directly contributes to the revised Output 1.5, where the data and information collected is used to design, and initiate implementation of, a management system for the 178,000 ha landscape, which includes three forest reserves and connective landscape, in

Comment	Response
	<p>Central Belize.</p> <ul style="list-style-type: none"> The following investments will be made for the management of the reduced target area: (1) installation of camera traps and (2) capacity building of site managers (Forest Department staff). Aside from those purchased by private sector partners, camera traps provided by the project will become the property of the Forest Department, which will be responsible for their maintenance and associated recurrent costs. Nevertheless, some of these costs may be defrayed by Equipment Use Agreements with cooperating monitoring entities.
<p><u>Output 2.1.2.</u></p> <p>Please clarify if this output will be implemented in the 1.1 million hectares.</p> <p>Who is going to be responsible for “<i>assuring sustainable offtake and incorporating estimates for jaguar prey offtake by viable jaguar populations</i>”? This requires significant data and enforcement mechanisms. Are they available in Belize? Is this going to take place across the 1.1 million ha?</p> <p><u>Output 2.1.3.</u></p> <p>What are the so called “<i>Alternative economic activities compatible with the protection and sustainable use of wilderness areas</i>”? Unless already identified (yes, prior to PPG) please reconsider this output. What and where are the proposed investments in ecotourism? Agro-Forestry is a long-term investment. What are the opportunity costs of this proposition? Please remove it if it is not really relevant or appropriate to the project.</p> <p><u>Output 2.1.4.</u></p> <p>As in the case of the project in Ecuador, the GEF requests removing this output. Strengthening the value chains of products generated by sustainable productive initiatives is a separate project, and unlikely to be delivered with the funding and time allocated to it. The development of a national</p>	<p><u>Output 2.1.2</u></p> <ul style="list-style-type: none"> For ease of reference, Output 2.1.2 in the Concept Note read as follows: “Regulations and management of prey/ game species strengthened and enhanced in terms of consumption and use, assuring sustainable offtake and incorporating estimates for jaguar prey offtake by viable jaguar populations.” In the revised project design, regulation of hunting has been moved to Outcome 3. Its substantive and geographic scope have been clarified: it will now focus on participatory investigation of sustainable hunting dynamics in a southern Belize landscape covering 49,475 ha. The work will no longer include efforts to ‘assure sustainable offtake’, which was deemed overly ambitious, but rather will help to lay the groundwork for the same. <p><u>Output 2.1.3</u></p> <ul style="list-style-type: none"> For ease of reference, Output 2.1.3 in the Concept Note read as follows: “Alternative economic activities compatible with the protection and sustainable use of wilderness areas increased, including educationally-oriented and other ecotourism, agroforestry.” This output has been merged with Output 2.1.5 of the

Comment	Response
<p>certification standard, marketing strategies, and strengthening sustainable productive initiatives are way beyond the means of this project.</p> <p><u>Output 2.1.5.</u></p> <p>Please clarify who owns and will operate the camera-traps, and where these activities in eco-tourism will take place. “<i>Expanding and improving tourist experiences</i>” sounds like a very soft target.</p>	<p>Concept Note and is now Output 2.2. Its scope has been reduced to cover ecotourism only.</p> <p><u>Output 2.1.4</u></p> <ul style="list-style-type: none"> This output has been removed as suggested by the GEF Sec reviewer. <p><u>Output 2.1.5</u></p> <ul style="list-style-type: none"> Camera traps will be owned and operated by various parties. These include: (1) Forest Department, (2) NGOs, e.g. Panthera, (3) private sector operators. Bringing private sector operators into the system is considered innovative here.
<p>Component 3. Combat wildlife crime</p> <p>What are the elements of this so called “<i>early warning system</i>”? The language in the corresponding outputs do not allow to understand what this concept means. Please clarify how the timely alerts are produced and who is supposed to respond (rapidly) to any emerging signs of illegal wildlife trade. Is this for the entire 1.1 million ha? Please provide an example of such system in the context of wildlife conservation in LAC. Is this early warning system (and the response) going to be financed with GEF \$60,000? Very unlikely to deliver any material results.</p> <p><u>Output 3.1.</u> Please clarify what “<i>enhanced patrolling and monitoring of possible illegal hunting</i>” means. Where are these patrols going to take place?</p>	<p><u>Component 3</u></p> <ul style="list-style-type: none"> For ease of reference, the Outcome 3 in the Concept Note read as follows: “An early warning system and regulatory environment, designed to provide timely alerts and rapid response to any emerging signs of illegal wildlife trade, particularly of jaguar parts, indicated by: (i) the number of confiscations/ arrests and (ii) the improved level of knowledge about wildlife trafficking in the enforcement personnel and in the general public.” The scope of this outcome has now been reduced, together with a planned increase in the component budget (to US \$150,000). The new outcome reads as follows: “Enhanced knowledge of the current status of the jaguar / prey / game species and hunting activities in 49,475 ha Maya Golden Landscape informs regulations for threat reduction and sustainable population management”. <p><u>Output 3.1</u></p> <ul style="list-style-type: none"> Component 3 is mainly focused on advancing forward the enabling

Comment	Response
	environment for sustainable hunting. To this end, it focuses on a xx hectare area in southern Belize
SUMMARY: The GEF kindly request to narrow-down the geographic and thematic scope of the project. While the concept note makes sense, it is very unlikely to deliver tangible results on the ground. Reconsider inserting more Investments in the project (vs TA).	<ul style="list-style-type: none"> The geographic and thematic scope of the project was reduced as noted in the response to the first comment (see above). We believe that this newly streamlined, focused design has a strong chance of achieving significant tangible benefits for Belize and important demonstrations for other countries in the Jaguar Corridor. Given the reduced scope of the project, we believe that the project objective an impact will be delivered only with the proposed TA.

In summary of the 3 December 2019 call, additional written comments were shared by GEFSec on 4 December. These are shown, together with responses, in the table below.

GEFSec comments received from Jaime Cavelier on 4 December 2019 following phone call with project development team, with responses

Comment	Response
1. National Database: Is there interest, capacity (institutional/human) and budget to build and MAINTAIN THE NATIONAL DATABASE? Please clearly describe the situation.	There is enough national human capacity allowing the training of a core group of in-country people that can maintain a Belizean database. The 2-3 years of the project will allow on the job training and development of this database. There are several international NGOs and institutes committed to assisting with expertise in database management (Panthera, Virginia Tech) and assisting with the continued financial sustainability of the cloud-based database (Panthera, British Government, potentially WWF). Equally a system will be developed in terms of revenue generation acquired from camera trap research permits that will allow long-term funding for maintenance and retention of camera data within a single system.
2. Camera Traps in 380,000 ha. Please clarify what has happened with the images taken by the camera traps installed in 380,000 ha and how have they been used to improve the management of the protected areas. Be specific.	All the individual stakeholder, both managing NGOs or research institutes, carrying out camera surveys, have internally managed the acquired images and maintained databases on individual basis. This assures the existing expertise in-country as mentioned in comment 1. These individual databases have been analysed for single park monitoring and management purpose, showing levels of abundance, distribution, and presence of rare and endangered species. However, all these efforts have been carried out in isolation without combining them within a national framework for national population

Comment	Response
	assessments. The current building and justification of the National Protected Area System Plan requires such a science based rationalization.
3. Analysis of images: How is the government and partners thinking of analyzing the images coming from the additional 700-900 camera traps to be installed by the project?. If AI is going to be used to analyze the images, what system is going to be used?	There are several institutes working long-term in Belize, with top end publication records on monitoring jaguars in particular (Panthera, Virginia Tec). Panthera has recently developed the first species classifier for the Neotropics, allowing automated identification of species and jaguar ID input into databases. This is the first of its kind for the Neotropics, with systems like Wildlife Insight not yet having this capacity and in much more rudimentary state. We therefore expect within the lifetime of the project that less staff hours will be spend processing data with a much higher emphasis on analysis.
4. Areas. Please prepare a table that can accompany the map listing the different areas (ha) where the project will be implemented.	A table showing the breakdown by PA of each target landscape, including both protected areas and production landscape areas, has been provided
5. METT: What investments will be made in the Protected Areas expecting to change the score of the METTs at Sibun, Sittee and Manatee?	The main problem with these important central forest reserves concerns lack of capacity for regular visitation by authority. Recent incursions and forest fires showed that camera trapping institutes were the first to raise alarm here. The camera trap deployment and maintenance by forestry staff will assure systematic boots on the ground for the next 2-3 years. With continued support from British Government, Panthera, potentially WWF, and government of Belize. The to be developed management can be further implemented and increased capacity on the ground can be maintained.
6. Sustainable tourism. The relationship between sustainable tourism and the camera traps is tenuous at best. Please elaborate.	The creation and promotion of Belize as a camera trap country, with high density Neotropical wildlife, will further promote it as a research/tourist destination for tropical research groups from English speaking countries. Here the close proximity to the United States and English as the national language are highly attractive. Equally the relative safety of the country create that tourism is already the most important revenue earning industry. Neotropical wildlife in Belize is difficult to see and camera trapping, with better organization between tourism industry and researchers, can provide a more vivid means of bringing this to the tourist public.
7. Output 2.1 Rapid response protocol. What is the capacity of the corresponding authorities to make use of the “rapid response protocol”? Please elaborate.	Incidences of human-jaguar conflict are high in the country, with some specific situations requiring trapping of jaguars. These events have always required the input of various agencies with possible availability (zoo, individual researchers). The current proposal will assure that a team can be trained that can be maintained for the specific purpose with the ability of continuous availability. The training of this team by highly expert trappers and jaguar researchers, assures that both the technical side of trapping and understanding of when to do what are internalized, preventing ad-hoc creations of teams.
8. Output 3.1. Pilot model. What is the capacity of enforcement of the sustainable game species offtake?	The current capacity for enforcement is low with some communities relying heavily on game. The pilot study will be carried out within relatively homogeneous communities with a

Comment	Response
	high reliance of game meat for their daily protein intake. Through monitoring and creation of systems we strive for the creation of “self-policing” system in close collaboration and created with the government departments. Analysis of successful components, while learning lessons from less successful parts, will allow us to replicate developed models in other parts of the country and thus create several sustainable, legal game hunting areas for local communities.

The table below summarizes comments received from GWP Steering Committee members.

Comments from GWP Program Steering Committee members		
The draft Prodoc was shared with Steering Committee members for comment. Useful comments were received from WWF, WCS and CITES on topics including knowledge sharing, risks and monitoring.	Comments have been taken into account in the present submission documents.	Various sections of the CER and Prodoc

The table below responds to relevant comments included in the STAP review of the GWP as a whole.

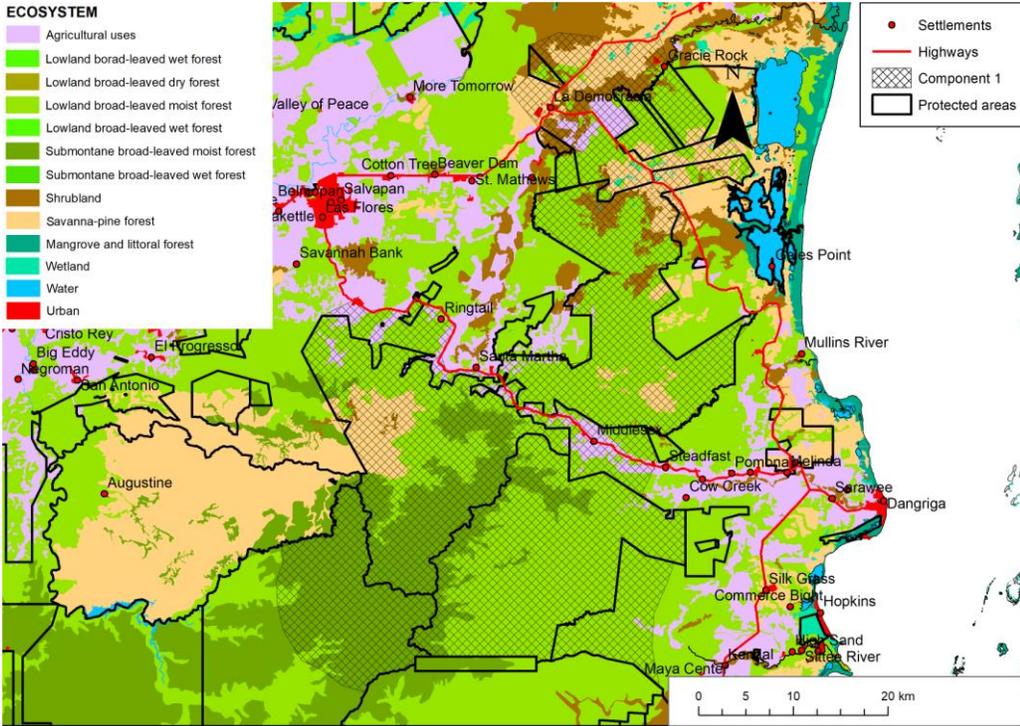
Comment	Response
Project justification. The TOC narrative and diagram is good and clear. The text makes very clear the interrelated nature of these outcomes. It could be helpful to convey this more clearly in Fig 2 by adding a few arrows e.g. the Activities/Outputs of components 2, 3 (and probably 4) will directly contribute to the Short-term Outcomes of Component 1. Adding these arrows would help highlight the integrated nature of the program	A Theory of Change diagram is presented. The direct causal relationship between outputs, direct outcomes and indirect outcomes is depicted through arrows.
Project description. the baseline scenario or any associated baseline projects. This is country and context specific and would need to be determined by carefully reviewing each Child Project which is beyond the scope of this screen.	In the current Child Project, the baseline, both in terms of the landscape and jaguar population and in terms of what the programs, agencies and the country are doing to address wildlife issues are included in the description of the development challenge, partnerships, stakeholder analysis and description of the landscapes of the GEF UNDP project document.

Annex C: Status of Utilization of Project Preparation Grant (PPG) (If requesting for PPG reimbursement, please provide details in the table below:

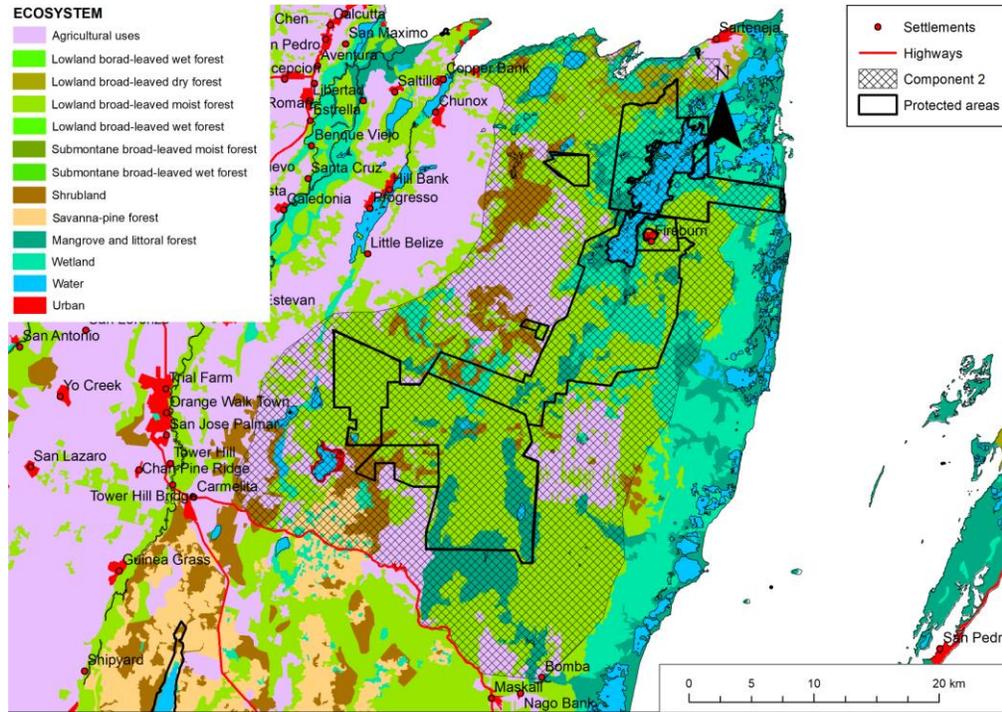
<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
PPG To develop the project concept titled “Enhancing jaguar corridors and strongholds through improved management and threat reduction” into a full project	50,000.00	44,047.25	5,952.75
Total	50,000.00	44,047.25	5,952.75

Annex D: Project Map(s) and Coordinates

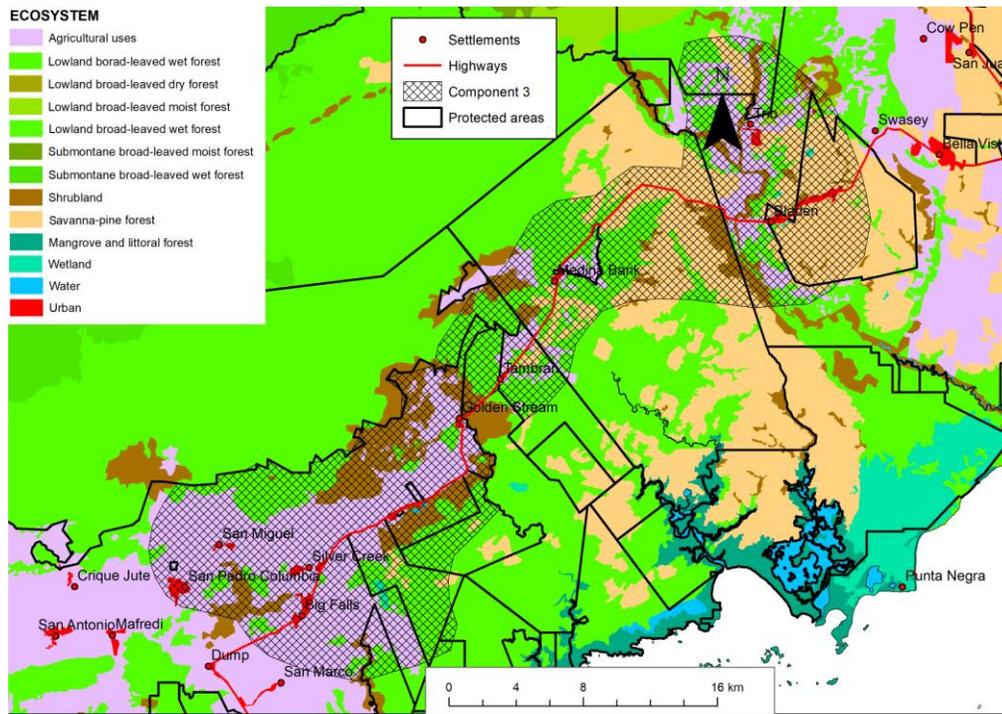
Map 1: Sibun River watershed landscape



Map 2: Northeast forest landscape



Map 3: Maya golden landscape



Annex E: GEF 7 Core Indicator Worksheet

Use this Worksheet to compute those indicator values as required in Part I, Table F to the extent applicable to your proposed project. Progress in programming against these targets for the program will be aggregated and reported at anytime during the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Core Indicator 1	Terrestrial protected areas created or under improved management for conservation and sustainable use					(Hectares)	
	<i>Hectares (1.1+1.2)</i>						
	<i>Expected</i>			<i>Achieved</i>			
		PIF stage	Endorsement	MTR	TE		
Indicator 1.1	Terrestrial protected areas newly created						
Name of Protected Area	WDPA ID	IUCN category	Hectares				
			Expected			Achieved	
			PIF stage	Endorsement	MTR	TE	
		(select)					
Indicator 1.2	Terrestrial protected areas under improved management effectiveness						
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score			
				Baseline		Achieved	
					Endorsement	MTR	TE
Sittee River Forest Reserve	12229	6 – Managed resource Protected Area	37,360		33.5		
Sibun Forest Reserve	3307	6 – Managed resource Protected Area	36,706		31.5		
Manatee Forest Reserve	12226	6 – Managed resource Protected Area	36,474		32		
Monkey Bay National Park	301914	2	859		20		
Monkey Bay private reserve	301913	4	470		40		
Runaway Creek	342394	1	2,888		62		

Zoo-managed property	555582997	0	700		49		
Chiquibul North / East	20230	2	19,628		66		
Deep River FR	3311	6	10,218		58		
Maya Mountains FR	28850	6	2,004		61		
Columbia River Forest Reserve	3314	6	1,740		36		
Golden Corridor Reserve	301941	4	1,740		80		
Northern Biological Corridor	Not yet assigned	6	36,040		82		
		Sum	186,827				
Core Indicator 2	Marine protected areas created or under improved management for conservation and sustainable use						<i>(Hectares)</i>
				Hectares (2.1+2.2)			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
Indicator 2.1	Marine protected areas newly created						
Name of Protected Area	WDPA ID	IUCN category	Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
		Sum					
Indicator 2.2	Marine protected areas under improved management effectiveness						
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score			
				Baseline		Achieved	
				PIF stage	Endorsement	MTR	TE
		Sum					
Core Indicator 3	Area of land restored						<i>(Hectares)</i>
				Hectares (3.1+3.2+3.3+3.4)			
				Expected		Achieved	
				PIF stage	Endorsement	MTR	TE
Indicator 3.1	Area of degraded agricultural land restored						
			Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	

Indicator 3.2	Area of forest and forest land restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.3	Area of natural grass and shrublands restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.4	Area of wetlands (including estuaries, mangroves) restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 4	Area of landscapes under improved practices (hectares; excluding protected areas)					
			(Hectares)			
			Hectares (4.1+4.2+4.3+4.4)			
			Expected		Expected	
			PIF stage	Endorsement	MTR	TE
				157,475		
Indicator 4.1	Area of landscapes under improved management to benefit biodiversity					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.2	Area of landscapes that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.3	Area of landscapes under sustainable land management in production systems					

			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
				157,475		
Indicator 4.4	Area of High Conservation Value Forest (HCVF) loss avoided					
Include documentation that justifies HCVF			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 5	Area of marine habitat under improved practices to benefit biodiversity					<i>(Hectares)</i>
Indicator 5.1	Number of fisheries that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 5.2	Number of large marine ecosystems (LMEs) with reduced pollution and hypoxial					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 5.3	Amount of Marine Litter Avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 6	Greenhouse gas emission mitigated					<i>(Tons)</i>
			Expected metric tons of CO ₂ e (6.1+6.2)			
			PIF stage	Endorsement	MTR	TE
Expected CO ₂ e (direct)						
Expected CO ₂ e (indirect)						
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
			Expected metric tons of CO ₂ e			
			PIF stage	Endorsement	MTR	TE
Expected CO ₂ e (direct)						

	Expected CO2e (indirect)					
	Anticipated start year of accounting					
	Duration of accounting					
Indicator 6.2	Emissions avoided Outside AFOLU					
			Expected metric tons of CO ₂ e			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated start year of accounting					
	Duration of accounting					
Indicator 6.3	Energy saved					
			MJ			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 6.4	Increase in installed renewable energy capacity per technology					
			Capacity (MW)			
		Technology	Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				
Core Indicator 7	Number of shared water ecosystems (fresh or marine) under new or improved cooperative management					<i>(Number)</i>
Indicator 7.1	Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.2	Level of Regional Legal Agreements and Regional Management Institutions to support its implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.3	Level of National/Local reforms and active participation of Inter-Ministerial Committees					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE

Indicator 7.4	Level of engagement in IWLEARN through participation and delivery of key products					
		Shared water ecosystem	Rating (scale 1-4)			
			Rating		Rating	
			PIF stage	Endorsement	MTR	TE
Core Indicator 8	Globally over-exploited fisheries Moved to more sustainable levels					(Tons)
Fishery Details			Metric Tons			
			PIF stage	Endorsement	MTR	TE
Core Indicator 9	Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products					(Tons)
			Metric Tons (9.1+9.2+9.3)			
			Expected		Achieved	
			PIF stage	PIF stage	MTR	TE
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)					
POPs type			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
(select)	(select)	(select)				
(select)	(select)	(select)				
(select)	(select)	(select)				
Indicator 9.2	Quantity of mercury reduced					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.3	Hydrochlorofluorocarbons (HCFC) Reduced/Phased out					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.4	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Indicator 9.5	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					
		Technology	Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.6	Quantity of POPs/Mercury containing materials and products directly avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	PIF stage	Endorsement
Core Indicator 10	Reduction, avoidance of emissions of POPs to air from point and non-point sources					(Grams)
Indicator 10.1	Number of countries with legislation and policy implemented to control emissions of POPs to air					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment					(Number)
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		Female	7,393			
		Male	7,720			
		Total				

Annex F: GEF Project Taxonomy Worksheet

Use this Worksheet to list down the taxonomic information required under Part I, item G by ticking the most relevant keywords/ topics/themes that best describe this project.

Level 1	Level 2	Level 3	Level 4
<input checked="" type="checkbox"/> Influencing models			
	<input checked="" type="checkbox"/> Transform policy and regulatory environments		
	<input checked="" type="checkbox"/> Strengthen institutional capacity and decision-making		
	<input checked="" type="checkbox"/> Convene multi-stakeholder alliances		
	<input checked="" type="checkbox"/> Demonstrate innovative approaches		
	<input type="checkbox"/> Deploy innovative financial instruments		
<input checked="" type="checkbox"/> Stakeholders			
	<input checked="" type="checkbox"/> Indigenous Peoples		
	<input checked="" type="checkbox"/> Private Sector		
		<input type="checkbox"/> Capital providers	
		<input type="checkbox"/> Financial intermediaries and market facilitators	
		<input type="checkbox"/> Large corporations	
		<input checked="" type="checkbox"/> SMEs	
		<input checked="" type="checkbox"/> Individuals/Entrepreneurs	
		<input type="checkbox"/> Non-Grant Pilot	
		<input type="checkbox"/> Project Reflow	
	<input checked="" type="checkbox"/> Beneficiaries		
	<input checked="" type="checkbox"/> Local Communities		
	<input checked="" type="checkbox"/> Civil Society		
		<input checked="" type="checkbox"/> Community Based Organization	
		<input checked="" type="checkbox"/> Non-Governmental Organization	
		<input checked="" type="checkbox"/> Academia	
		<input type="checkbox"/> Trade Unions and Workers Unions	
	<input checked="" type="checkbox"/> Type of Engagement		
		<input checked="" type="checkbox"/> Information Dissemination	
		<input checked="" type="checkbox"/> Partnership	
		<input checked="" type="checkbox"/> Consultation	
		<input checked="" type="checkbox"/> Participation	
	<input checked="" type="checkbox"/> Communications		
		<input checked="" type="checkbox"/> Awareness Raising	
		<input type="checkbox"/> Education	

		<input checked="" type="checkbox"/> Public Campaigns	
		<input checked="" type="checkbox"/> Behavior Change	
<input checked="" type="checkbox"/> Capacity, Knowledge and Research			
	<input type="checkbox"/> Enabling Activities		
	<input checked="" type="checkbox"/> Capacity Development		
	<input checked="" type="checkbox"/> Knowledge Generation and Exchange		
	<input type="checkbox"/> Targeted Research		
	<input checked="" type="checkbox"/> Learning		
		<input checked="" type="checkbox"/> Theory of Change	
		<input checked="" type="checkbox"/> Adaptive Management	
		<input checked="" type="checkbox"/> Indicators to Measure Change	
	<input checked="" type="checkbox"/> Innovation		
	<input checked="" type="checkbox"/> Knowledge and Learning		
		<input checked="" type="checkbox"/> Knowledge Management	
		<input checked="" type="checkbox"/> Innovation	
		<input checked="" type="checkbox"/> Capacity Development	
		<input checked="" type="checkbox"/> Learning	
	<input checked="" type="checkbox"/> Stakeholder Engagement Plan		
<input checked="" type="checkbox"/> Gender Equality			
	<input checked="" type="checkbox"/> Gender Mainstreaming		
		<input checked="" type="checkbox"/> Beneficiaries	
		<input checked="" type="checkbox"/> Women groups	
		<input checked="" type="checkbox"/> Sex-disaggregated indicators	
		<input checked="" type="checkbox"/> Gender-sensitive indicators	
	<input checked="" type="checkbox"/> Gender results areas		
		<input checked="" type="checkbox"/> Access and control over natural resources	
		<input checked="" type="checkbox"/> Participation and leadership	
		<input type="checkbox"/> Access to benefits and services	
		<input checked="" type="checkbox"/> Capacity development	
		<input checked="" type="checkbox"/> Awareness raising	
		<input checked="" type="checkbox"/> Knowledge generation	
<input checked="" type="checkbox"/> Focal Areas/Theme			
	<input type="checkbox"/> Integrated Programs		
		<input type="checkbox"/> Commodity Supply Chains (¹² Good Growth Partnership)	

			<input type="checkbox"/> Sustainable Commodities Production
			<input type="checkbox"/> Deforestation-free Sourcing
			<input type="checkbox"/> Financial Screening Tools
			<input type="checkbox"/> High Conservation Value Forests
			<input type="checkbox"/> High Carbon Stocks Forests
			<input type="checkbox"/> Soybean Supply Chain
			<input type="checkbox"/> Oil Palm Supply Chain
			<input type="checkbox"/> Beef Supply Chain
			<input type="checkbox"/> Smallholder Farmers
			<input type="checkbox"/> Adaptive Management
		<input type="checkbox"/> Food Security in Sub-Saharan Africa	
			<input type="checkbox"/> Resilience (climate and shocks)
			<input type="checkbox"/> Sustainable Production Systems
			<input type="checkbox"/> Agroecosystems
			<input type="checkbox"/> Land and Soil Health
			<input type="checkbox"/> Diversified Farming
			<input type="checkbox"/> Integrated Land and Water Management
			<input type="checkbox"/> Smallholder Farming
			<input type="checkbox"/> Small and Medium Enterprises
			<input type="checkbox"/> Crop Genetic Diversity
			<input type="checkbox"/> Food Value Chains
			<input type="checkbox"/> Gender Dimensions
			<input type="checkbox"/> Multi-stakeholder Platforms
		<input type="checkbox"/> Food Systems, Land Use and Restoration	
			<input type="checkbox"/> Sustainable Food Systems
			<input type="checkbox"/> Landscape Restoration
			<input type="checkbox"/> Sustainable Commodity Production
			<input type="checkbox"/> Comprehensive Land Use Planning
			<input type="checkbox"/> Integrated Landscapes
			<input type="checkbox"/> Food Value Chains
			<input type="checkbox"/> Deforestation-free Sourcing
			<input type="checkbox"/> Smallholder Farmers
		<input type="checkbox"/> Sustainable Cities	
			<input type="checkbox"/> Integrated urban planning
			<input type="checkbox"/> Urban sustainability framework
			<input type="checkbox"/> Transport and Mobility
			<input type="checkbox"/> Buildings
			<input type="checkbox"/> Municipal waste management
			<input type="checkbox"/> Green space
			<input type="checkbox"/> Urban Biodiversity

			<input type="checkbox"/> Urban Food Systems
			<input type="checkbox"/> Energy efficiency
			<input type="checkbox"/> Municipal Financing
			<input type="checkbox"/> Global Platform for Sustainable Cities
			<input type="checkbox"/> Urban Resilience
	<input checked="" type="checkbox"/> Biodiversity		
		<input checked="" type="checkbox"/> Protected Areas and Landscapes	
			<input checked="" type="checkbox"/> Terrestrial Protected Areas
			<input type="checkbox"/> Coastal and Marine Protected Areas
			<input checked="" type="checkbox"/> Productive Landscapes
			<input type="checkbox"/> Productive Seascapes
			<input checked="" type="checkbox"/> Community Based Natural Resource Management
		<input checked="" type="checkbox"/> Mainstreaming	
			<input type="checkbox"/> Extractive Industries (oil, gas, mining)
			<input type="checkbox"/> Forestry (Including HCVF and REDD+)
			<input checked="" type="checkbox"/> Tourism
			<input checked="" type="checkbox"/> Agriculture & agrobiodiversity
			<input type="checkbox"/> Fisheries
			<input type="checkbox"/> Infrastructure
			<input type="checkbox"/> Certification (National Standards)
			<input type="checkbox"/> Certification (International Standards)
		<input checked="" type="checkbox"/> Species	
			<input checked="" type="checkbox"/> Illegal Wildlife Trade
			<input checked="" type="checkbox"/> Threatened Species
			<input checked="" type="checkbox"/> Wildlife for Sustainable Development
			<input type="checkbox"/> Crop Wild Relatives
			<input type="checkbox"/> Plant Genetic Resources
			<input checked="" type="checkbox"/> Animal Genetic Resources
			<input type="checkbox"/> Livestock Wild Relatives
			<input type="checkbox"/> Invasive Alien Species (IAS)
		<input checked="" type="checkbox"/> Biomes	
			<input type="checkbox"/> Mangroves
			<input type="checkbox"/> Coral Reefs
			<input type="checkbox"/> Sea Grasses
			<input type="checkbox"/> Wetlands
			<input type="checkbox"/> Rivers

			<input type="checkbox"/> Lakes
			<input type="checkbox"/> Tropical Rain Forests
			<input checked="" type="checkbox"/> Tropical Dry Forests
			<input type="checkbox"/> Temperate Forests
			<input type="checkbox"/> Grasslands
			<input type="checkbox"/> Paramo
			<input type="checkbox"/> Desert
		<input type="checkbox"/> Financial and Accounting	
			<input type="checkbox"/> Payment for Ecosystem Services
			<input type="checkbox"/> Natural Capital Assessment and Accounting
			<input type="checkbox"/> Conservation Trust Funds
			<input type="checkbox"/> Conservation Finance
		<input type="checkbox"/> Supplementary Protocol to the CBD	
			<input type="checkbox"/> Biosafety
			<input type="checkbox"/> Access to Genetic Resources Benefit Sharing
	<input type="checkbox"/> Forests		
		<input type="checkbox"/> Forest and Landscape Restoration	
			<input type="checkbox"/> REDD/REDD+
		<input type="checkbox"/> Forest	
			<input type="checkbox"/> Amazon
			<input type="checkbox"/> Congo
			<input type="checkbox"/> Drylands
	<input type="checkbox"/> Land Degradation		
		<input type="checkbox"/> Sustainable Land Management	
			<input type="checkbox"/> Restoration and Rehabilitation of Degraded Lands
			<input type="checkbox"/> Ecosystem Approach
			<input type="checkbox"/> Integrated and Cross-sectoral approach
			<input type="checkbox"/> Community-Based NRM
			<input type="checkbox"/> Sustainable Livelihoods
			<input type="checkbox"/> Income Generating Activities
			<input type="checkbox"/> Sustainable Agriculture
			<input type="checkbox"/> Sustainable Pasture Management
			<input type="checkbox"/> Sustainable Forest/Woodland Management
			<input type="checkbox"/> Improved Soil and Water Management Techniques
			<input type="checkbox"/> Sustainable Fire Management
			<input type="checkbox"/> Drought Mitigation/Early Warning
		<input type="checkbox"/> Land Degradation Neutrality	
			<input type="checkbox"/> Land Productivity
			<input type="checkbox"/> Land Cover and Land cover change

			<input type="checkbox"/> Carbon stocks above or below ground
		<input type="checkbox"/> Food Security	
	<input type="checkbox"/> International Waters		
		<input type="checkbox"/> Ship	
		<input type="checkbox"/> Coastal	
		<input type="checkbox"/> Freshwater	
			<input type="checkbox"/> Aquifer
			<input type="checkbox"/> River Basin
			<input type="checkbox"/> Lake Basin
		<input type="checkbox"/> Learning	
		<input type="checkbox"/> Fisheries	
		<input type="checkbox"/> Persistent toxic substances	
		<input type="checkbox"/> SIDS : Small Island Dev States	
		<input type="checkbox"/> Targeted Research	
		<input type="checkbox"/> Pollution	
			<input type="checkbox"/> Persistent toxic substances
			<input type="checkbox"/> Plastics
			<input type="checkbox"/> Nutrient pollution from all sectors except wastewater
			<input type="checkbox"/> Nutrient pollution from Wastewater
		<input type="checkbox"/> Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		<input type="checkbox"/> Strategic Action Plan Implementation	
		<input type="checkbox"/> Areas Beyond National Jurisdiction	
		<input type="checkbox"/> Large Marine Ecosystems	
		<input type="checkbox"/> Private Sector	
		<input type="checkbox"/> Aquaculture	
		<input type="checkbox"/> Marine Protected Area	
		<input type="checkbox"/> Biomes	
			<input type="checkbox"/> Mangrove
			<input type="checkbox"/> Coral Reefs
			<input type="checkbox"/> Seagrasses
			<input type="checkbox"/> Polar Ecosystems
			<input type="checkbox"/> Constructed Wetlands
	<input type="checkbox"/> Chemicals and Waste		
		<input type="checkbox"/> Mercury	
		<input type="checkbox"/> Artisanal and Scale Gold Mining	
		<input type="checkbox"/> Coal Fired Power Plants	
		<input type="checkbox"/> Coal Fired Industrial Boilers	
		<input type="checkbox"/> Cement	
		<input type="checkbox"/> Non-Ferrous Metals Production	
		<input type="checkbox"/> Ozone	

		<input type="checkbox"/> Persistent Organic Pollutants	
		<input type="checkbox"/> Unintentional Persistent Organic Pollutants	
		<input type="checkbox"/> Sound Management of chemicals and Waste	
		<input type="checkbox"/> Waste Management	
			<input type="checkbox"/> Hazardous Waste Management
			<input type="checkbox"/> Industrial Waste
			<input type="checkbox"/> e-Waste
		<input type="checkbox"/> Emissions	
		<input type="checkbox"/> Disposal	
		<input type="checkbox"/> New Persistent Organic Pollutants	
		<input type="checkbox"/> Polychlorinated Biphenyls	
		<input type="checkbox"/> Plastics	
		<input type="checkbox"/> Eco-Efficiency	
		<input type="checkbox"/> Pesticides	
		<input type="checkbox"/> DDT - Vector Management	
		<input type="checkbox"/> DDT - Other	
		<input type="checkbox"/> Industrial Emissions	
		<input type="checkbox"/> Open Burning	
		<input type="checkbox"/> Best Available Technology / Best Environmental Practices	
		<input type="checkbox"/> Green Chemistry	
	<input type="checkbox"/> Climate Change		
		<input type="checkbox"/> Climate Change Adaptation	
			<input type="checkbox"/> Climate Finance
			<input type="checkbox"/> Least Developed Countries
			<input type="checkbox"/> Small Island Developing States
			<input type="checkbox"/> Disaster Risk Management
			<input type="checkbox"/> Sea-level rise
			<input type="checkbox"/> Climate Resilience
			<input type="checkbox"/> Climate information
			<input type="checkbox"/> Ecosystem-based Adaptation
			<input type="checkbox"/> Adaptation Tech Transfer
			<input type="checkbox"/> National Adaptation Programme of Action
			<input type="checkbox"/> National Adaptation Plan
			<input type="checkbox"/> Mainstreaming Adaptation
			<input type="checkbox"/> Private Sector
			<input type="checkbox"/> Innovation
			<input type="checkbox"/> Complementarity
			<input type="checkbox"/> Community-based Adaptation
			<input type="checkbox"/> Livelihoods
		<input type="checkbox"/> Climate Change Mitigation	

			<input type="checkbox"/> Agriculture, Forestry, and other Land Use
			<input type="checkbox"/> Energy Efficiency
			<input type="checkbox"/> Sustainable Urban Systems and Transport
			<input type="checkbox"/> Technology Transfer
			<input type="checkbox"/> Renewable Energy
			<input type="checkbox"/> Financing
			<input type="checkbox"/> Enabling Activities
		<input type="checkbox"/> Technology Transfer	
			<input type="checkbox"/> Poznan Strategic Programme on Technology Transfer
			<input type="checkbox"/> Climate Technology Centre & Network (CTCN)
			<input type="checkbox"/> Endogenous technology
			<input type="checkbox"/> Technology Needs Assessment
			<input type="checkbox"/> Adaptation Tech Transfer
		<input type="checkbox"/> United Nations Framework on Climate Change	
			<input type="checkbox"/> Nationally Determined Contribution
	<input checked="" type="checkbox"/> Rio Markers		
		<input type="checkbox"/> Paris Agreement	
		<input checked="" type="checkbox"/> Sustainable Development Goals	
		<input checked="" type="checkbox"/> Climate Change Mitigation 0	
		<input type="checkbox"/> Climate Change Mitigation 1	
		<input type="checkbox"/> Climate Change Mitigation 2	
		<input checked="" type="checkbox"/> Climate Change Adaptation 0	
		<input type="checkbox"/> Climate Change Adaptation 1	
		<input type="checkbox"/> Climate Change Adaptation 2	