

## GEF-7 CHILD PROJECT CONCEPT

CHILD PROJECT TYPE: MEDIUM-SIZED PROJECT

PROGRAM: OTHER PROGRAM (GWP)

<b>Child Project Title:</b>	Enhancing jaguar corridors and strongholds through improved management and threat reduction
<b>Country:</b>	Belize
<b>Lead Agency</b>	Ministry of Agriculture, Fisheries, Forestry, the Environment and Sustainable Development
<b>GEF Agency(ies):</b>	UNDP

### INDICATIVE FOCAL/NON-FOCAL AREA ELEMENTS AND FINANCING

Programming Directions	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
BD-1-2a – Mainstream biodiversity across sectors as well as landscapes and seascapes through global wildlife program to prevent extinction of known threatened species	GEF TF	700,000	4,557,500
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	GEF TF	534,404	5,836,500
<b>Total Project Cost</b>		<b>1,234,404</b>	<b>10,394,000</b>

### PROJECT COMPONENTS AND FINANCING

<p><b>Project Objective:</b> To secure jaguar corridors and strengthen the management of jaguar conservation units through reduction of current and emerging threats, development of sustainable wildlife economy and enhanced regional cooperation.</p>						
Project Components	Component Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. Conserve wildlife and habitats	TA	1. Improved conservation and connectivity in three landscapes, each consisting of Jaguar Conservation Units and corridors, totaling 1,099,374 ha. Indicated by: Improvements in biodiversity status (key species include jaguars, peccaries and tapirs) and threat reduction indexes for each landscape	1.1 A standardized and integrated system for wildlife monitoring established to prevent/reduce poaching and underpin conservation of jaguars and associated (prey) species. The system will be developed through the following actions: (i) assess gaps in current monitoring efforts; (ii) develop a model of the movement ecology of jaguars and wide-ranging prey species established in order, <i>inter alia</i> , to monitor and assess effectiveness of protected area system and of corridors; (iii) develop plan and means of implementing; (iv) create a robust national monitoring database covering jaguars, prey and game species	GEFTF	650,000	3,700,000

		<p><i>Baselines and targets will be confirmed during the PPG.</i></p>	<p>1.2 A management and monitoring program for the Northern Biological Corridor area and the Rio Bravo Conservation Area implemented based on a detailed assessment of connectivity, land use change and land use management systems in the area and creating solutions for friction points between wildlife use and human development, e.g. crossing points for the Northern highway, some larger expanses of sugar cane farms and a few villages.</p> <p>1.3 Updated management and monitoring program developed and operationalized for the Central Belize Corridor, connecting the northern protected block of the Rio Bravo, and the largest contiguous forest block in Belize, the Maya Mountain Massive, based on an updated assessment of the permeability and land use of the area and creating solutions for friction points between wildlife use and human development, e.g. crossing points for the George Price highway and the soon-to-be improved Coastal Road.</p> <p>1.4 A management and monitoring program for the Maya Mountain Massive and the remaining forests in Southern Belize and Sarstoon Temash established and operationalized, based on an updated assessment of connectivity, land use change and land use management in the area and creating solutions for friction points between wildlife use and human development, e.g. crossing points for the Southern highway at two locations (towards the coast and the road towards the district capital, Punta Gorda on the coast), and at the rapidly expanding agricultural frontier of traditional Mayan villages</p>			
2. Promote wildlife-based economy	TA	2.1 Strengthened systems for preventing and responding to conflicts between jaguar conservation and otherwise sustainable economic development,	2.1.1 Enhanced protocol and system for responding to jaguar - livestock conflict developed and applied, including: (i) national network of six district-level conflict resolution teams; (ii) system for detailed logging and database management of national occurrences of	GEFTF	344,404	4,557,500

		<p>as indicated by: (i) a fifty-percent reduction in livestock-jaguar conflicts due to application of the jaguar-livestock conflict resolution protocol; (ii) increased number of men and women benefiting from alternative sustainable livelihoods</p> <p><i>Baselines and targets will be confirmed during the PPG.</i></p>	<p>conflict; (ii) support for effective responses to conflict situations throughout the country, and; (iv) ability to provide material assistance in specific situations identified in the protocol, e.g. for building protective structures, (electric) fencing, lights. Essential cases are defined as human-jaguar conflict in essential jaguar corridor areas or human-jaguar conflict that shows signs of escalating into direct threat of human life.</p> <p>2.1.2 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</p> <p>2.1.3 Alternative economic activities compatible with the protection and sustainable use of wilderness areas increased, including educationally-oriented and other ecotourism, agroforestry</p> <p>2.1.4 The value chains of products generated by sustainable productive initiatives identified in 2.3 are strengthened, including: (i) contribute to the development of a national certification standard for the responsible production of goods and services compatible with the conservation of wildlife; (ii) develop product marketing strategies that use the jaguar as an emblematic species</p> <p>2.1.5. A training and outreach program that will 1) increase the proficiency of guides and landowners in producing quality camera-trap photos, 2) educate and assist the ecotourism industry in expanding and improving tourist experiences.</p>			
3. Combat wildlife crime		<p>Outcome 3: An early warning system and regulatory environment, designed to provide timely alerts and rapid response to any emerging signs of illegal wildlife trade,</p>	<p>3.1. An inter-sectoral strategy for preventing and responding to illegal wildlife trade approved and operationalised, including: (i) revisions to the Wildlife Protection Act of 1982 (revised 2000); (ii) enhanced patrolling and monitoring of possible illegal hunting</p>	GEFTF	60,000	1,517,500

		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  <i>Baselines and targets will be confirmed during the PPG.</i>	3.2 Institutional and individual capacity strengthened for implementing the early warning system for combatting illegal wildlife trade			
4. Coordinate and enhance knowledge	TA	4.1 Enhanced transboundary collaboration and effective knowledge management and communication, indicated by: (1) # of transboundary agreements; (2) uptake of lessons learned  <i>Baselines and targets will be confirmed during the PPG.</i>	4.1 Transboundary cooperation strengthened via new or strengthened bilateral and/or trilateral agreements delineating cooperation at key transboundary landscapes  4.2 Assessment of lessons learned, for use at national level and in exchanges with Latin American countries	GEFTF	70,000	150,000
Subtotal				GEFTF	1,124,404	9,925,000
Project Management Cost (PMC)				GEFTF	110,000	469,000
<b>Total Project Cost</b>					1,234,404	10,394,000

**INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount (\$)
Recipient Country Government	Ministry of Agriculture, Forestry, Fisheries, the Environment, Sustainable Development and Climate Change	Cash	Investment Mobilised	950,000
	Ministry of Agriculture, Forestry, Fisheries, the Environment, Sustainable Development and Climate Change	In kind	Recurrent Expenditures	3,200,000
Civil Society Organisation	Panthera	Cash	Investment Mobilised	460,000
	Panthera	In kind	Recurrent Expenditures	420,000

Civil Society Organisation	Wildlife Conservation Society	Cash	Investment Mobilised	130,000
	Wildlife Conservation Society	In kind	Recurrent Expenditures	520,000
Civil Society Organisation	Ya'axche	In kind	Recurrent Expenditures	180,000
Civil Society Organisation	Wildtracks	In kind	Recurrent Expenditures	104,000
	Wildtracks	Cash	Investment Mobilised	120,000
Civil Society Organisation	Belize Audubon Society	In kind	Recurrent Expenditures	320,000
	Belize Audubon Society	Cash	Investment Mobilised	200,000
Civil Society Organisation	Corozal Sustainable Future Initiative	In kind	Recurrent Expenditures	2,400,000
	Corozal Sustainable Future Initiative	Cash	Investment Mobilised	550,000
Other	Protected Areas Conservation Trust	Grant	Investment Mobilized	500,000
Other	University of Belize Environmental Research Institute (ERI)		Investment Mobilized	300,000
GEF Agency	UNDP	Grant	Investment Mobilized	40,000
<b>Total Co-financing</b>				<b>10,394,000</b>

Describe how any “Investment Mobilized” was identified.

As jaguars are a species of national concern, many government agencies, NGOs and conservation organizations are supporting the initiative, as follows:

**Ministry of Agriculture, Forestry, Fisheries, the Environment, Sustainable Development and Climate Change:** The proposed initiative forms part of a portfolio of projects developed and implemented by the Government of Belize in support of effective biodiversity/ natural resource management. The Forest Department, responsible to the Belize Forest Department is mandated with responsibility for the management of forest stands, terrestrial protected areas, watershed and wildlife management, actively mobilizes resources in support of this mandate. Resources identified within this document reflect Capital 2 (non-recurrent expenditure) projects identified within the multi-year planning budget of the Forest department, including a corridor protection project supported by GIZ and KfW.

**Panthera:** Panthera’s work is focused primarily on the jaguar, maintaining healthy prey populations, jaguar connectivity, primarily through reducing jaguar conflict with livestock growers. Panthera’s anticipated investment mobilized for the said activities would be approximate USD \$460,000, with baseline recurring expenditures of approximately \$420,000

**Wildlife Conservation Society (WCS):** WCS terrestrial program in Belize focuses on sustainable hunting and the use of enforcement and educational tools to bring about balance in hunting and reduce illegal take, along with capacity building to provide improved site security in protected areas. It is envisaged that \$130,000 will be mobilized for the activities related to this initiative, with an additional recurring expenditure of \$520,000.

**Ya’ axche Conservation Trust (YCT):** YCT is an NGO which acts as a PA co-manager within the designated southern biological Corridor. YCT has pledged to assure that part of their core funding will be used in direct support of activities considered under the currently proposed program.

**Wildtracks:** Wildtracks is a conservation NGO that partners with the government of Belize in PA management, management of Northern Corridors and rehabilitation and reintroduction of endangered species. Co-financing represents amounts committed for the support of wildlife activities within the northern corridors. More than 60% of Wildtrack’s commitment has already been secured by the organization through its mobilization network.

**Belize Audubon Society (BAS):** BAS is an NGO that partners with the Government of Belize in the Management of the Cockscomb Basin Wildlife Sanctuary (CBWS), which is recognized as the world’s first jaguar preserve. The mobilized investment represents resources generated from entrance fees associated with the wildlife sanctuary as well as additional resources mobilized by the entity in support of wildlife monitoring and conservation management. CBWS is a key component of the country’s southern corridor.

**Corozal Sustainable Future Initiative (CSFI):** CSFI is the Government’s primary partner in managing the North Eastern Biological Corridor. The investment identified here is derived from CSFI strategic plan for the corridor and is mobilized from private donations to the NGO as well as from monies raised through their resource mobilization network. The amount represents their mobilization target for the given project period, a portion of which will be utilized for specific investments to be identified.

**Protected Areas Conservation Trust (PACT):** The PACT is Belize’s national conservation trust. Revenues for the Trust are primarily derived from a Conservation Fee of US\$ 3.75 paid by overnight visitors, a fifteen per cent commission from cruise ship passenger head tax, fiduciary services, and interest earned on its Term Deposits. PACT redistributes the revenue throughout the National Protected Areas System (NPAS) by providing funding for projects that support conservation and promote environmentally sound management of Belize’s natural and cultural resources. Investment mobilized represents estimates based on PACT’s investment strategy expected to be redistributed for wildlife protection and corridor management within those areas serviced by the project during the project period.

**The Environmental Research Institute (ERI):** The ERI is a part of the National University of Belize. ERI partners with the government of Belize in the management of Belize’s central corridor, which connects Belize’s two largest forest blocks. ERI supports the coordination of actors within this system through implementation of the newly development corridor management plan. ERI actively mobilizes resource supporting this action plan. Stated investments represents ERI commitments are grant sourced and are reflected within its multi-year action plan.

**United Nations Development Programme (UNDP)**

Is the GEF IA for the proposed initiative. The UNDP Belize CO commits TRAC resource in support of project coordination activities.

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

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

**PROJECT PREPARATION GRANT (PPG)**

Is Project Preparation Grant requested?

Yes  If yes, PPG funds **have to be requested via the Portal** once the PFD is approved

No  If no, skip this item.

**PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee (b)	Total c = a + b
UNDP	GEFTF	Belize	Biodiversity	n/a	50,000	4,500	54,500
<b>Total PPG Amount</b>					<b>50,000</b>	<b>4,500</b>	<b>54,500</b>

**PROJECT'S TARGET CONTRIBUTIONS TO GEF 7 CORE INDICATORS**

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

Project Core Indicators		Expected at PIF
1	<b>Terrestrial protected areas</b> created or under improved management for conservation and sustainable use (Hectares)	838,049
4	Area of <b>landscapes under improved practices</b> (excluding protected areas) (Hectares)	261,325
11	Number of <b>direct beneficiaries disaggregated by gender</b> as co-benefit of GEF investment	25,000 (12,500 male and 12,500 female)

Note: 838,049 ha and 261,325 ha (total 1,099,374 ha) represent three target landscapes, each consisting of Jaguar Conservation Units and corridors. 25,000 represents an estimate local population in the three landscapes.

**PROJECT DESCRIPTION**

**1. Country Context**

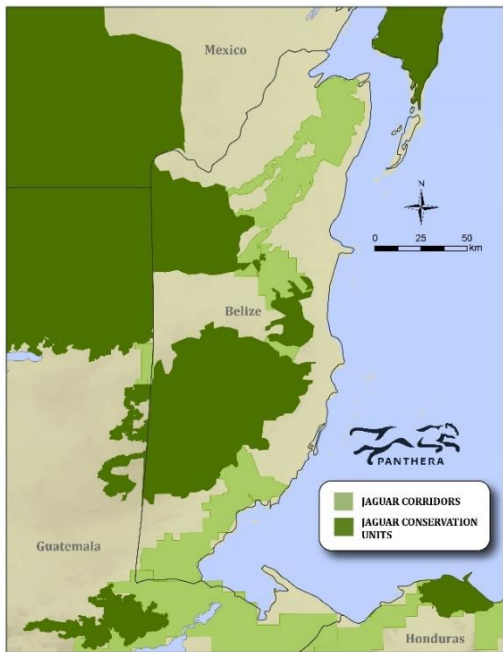
Belize has long been recognised for the beauty of its natural resources. As part of the Mesoamerican biodiversity “hotspot”, the land bridge between the North and South American continents, Belize has species representation from both continents, supporting 4,784 species of flora and fauna including over 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).<sup>1</sup>

The country's 22,965 km<sup>2</sup> 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 CBD, is through the establishment and management of protected areas. Belize developed the National Protected Areas System (NPAS), under its NPAS Act<sup>2</sup>. Forty per cent (40%) of the country's forested stands are found within the country's 103 protected area units.

<sup>1</sup> Belize 5th National Report to CBD

<sup>2</sup> National Protected Areas System Act, 2015

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 still



retains three large, forested blocks that are important in maintaining national and regional biodiversity. These key biodiversity blocks lie within the Maya Mountains Massif node, one of the largest remaining forested areas in Central America, the Selva Maya Forest in the west, linked to the Guatemala Selva Maya, and the Shipstern / Fireburn block in the northeast. As a country, however, 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.

Despite the high forest cover and relatively intact nature of the Belize natural environment, the primary issue for Belize is the development of fragmentation and loss of species through that deterioration. Through this proposed activity, the emphasis on jaguar connectivity and the umbrella impacts on other species will mitigate – if not eliminate – this anticipated deterioration, through rigorous monitoring of key species, including the jaguar, and directly confronting the conservation challenges for the jaguar, including

anti-predation techniques for cattle landscapes and road impact mitigation.

## 2. Project Overview and Approach

- a) Description of the geographical target(s), including details of systemic challenges, and the specific environmental threats and associated drivers that must be addressed

Belize has an impressive system of terrestrial protected areas, with roughly 8,000 km<sup>2</sup> of its total 23,000 km<sup>2</sup> landmass protected (~35%) as pure wilderness areas without human populations living within their boundaries. Outside of these protected areas, Belize still has ~60% forest cover, assuring an impressive amount of natural habitat for jaguars. This landscape has two major forest block, the Belizean portion of the Selva Maya in the North, consisting of the Rio Bravo Management Area, Spanish Creek and Labouring Creek Jaguar Corridor Wildlife Sanctuaries. The other block consists of 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 the most 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 an important node for connectivity for populations in Mexico, Guatemala and Honduras. These two large forest blocks approach each other in close proximity through the Central Belize 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 long-term survival of jaguars in isolation. As such connectivity to the northern Selva Maya is vital. Here a section of unprotected privately owned forest, currently called the Central Belize Corridor, concerns a vital component in terms 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 concerns the exponential growth of the agricultural frontier, both crops (sugarcane, corn, sorghum, and soy) and livestock (mainly cattle). The investment levels potential gain in foreign currency cannot be matched in the short-term and private landowners frequently get offered attractive offers. Currently large parts of the southern section of the Belizean Selva Maya are privately owned by a logging company, ready to sell to the highest bidder. This would cause a dramatic reduction in the size of the Belizean portion of the Selva Maya.

The high amount of nationwide attention on jaguars has equally created the first government led jaguar conflict response team. As with the database, this requires further expansion and resources to assure success. 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. Using appropriate permitting, zoning and regulatory systems, uncontrolled hunting with rampant depletion of prey populations – exacerbating the potential for jaguars switching to domestic animals when prey is heavily depleted – can be prevented.

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.

- b) Existing or planned baseline investments, including current institutional framework and processes for stakeholder engagement and gender integration

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.

c) How the integrated approach proposed for the child project responds to and reflects the Program's Theory of Change

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.

d) Incremental reasoning for GEF financing under the program

This project proposes an integrated approach of monitoring and research, embedded within a marketing and education eco-tourism strategy; together NGO and third party academic institutes, government will supervise and integrate these efforts into a national database system. The enhanced knowledge of jaguar distribution will feed into land management and provide narrative for economic gain through research-based tourism. Detailed understanding of jaguar distribution will equally feed into resolution human-jaguar conflict, as it will indicate the stress points where wilderness and agricultural expansion will likely collide in most problematic manner. Here different teams throughout the country can respond, equipped with sufficient knowledge, and resources; embedded within a larger government network. Targeted law enforcement can further improve the wilderness status of the Belizean forest.

### 3. Engagement with the Global / Regional Framework

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 km<sup>2</sup>, 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.