

Sustainable Integrated Management of Biodiversity in the Indio-Maíz Biological Reserve

Part I: Project Information

GEF ID

10674

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

☐ CBIT

☐ NGI

Project Title

Sustainable Integrated Management of Biodiversity in the Indio-Maíz Biological Reserve

Countries

Nicaragua

Agency(ies)

FAO

Other Executing Partner(s)

Ministry of the Environment and Natural Resources (MARENA)

Executing Partner Type

Government

GEF Focal Area

Biodiversity

Taxonomy

Tropical Rain Forests, Biomes, Biodiversity, Focal Areas, Productive Landscapes, Protected Areas and Landscapes, Terrestrial Protected Areas, Forestry - Including HCVF and REDD+, Mainstreaming, Agriculture and agrobiodiversity, Tourism, Restoration and Rehabilitation of Degraded Lands, Sustainable Land Management, Land Degradation, Strengthen institutional capacity and decision-making, Influencing models, Indigenous Peoples, Stakeholders, Beneficiaries, Individuals/Entrepreneurs, Private Sector, Participation, Type of Engagement, Consultation, Public Campaigns, Communications, Local Communities, Community Based Organization, Civil Society, Academia, Gender Mainstreaming, Gender Equality, Capacity Development, Gender results areas, Capacity, Knowledge and Research, Knowledge Generation, Knowledge Exchange, Learning

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 1

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

282,874.00

Submission Date

9/28/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	GET	1,000,000.00	7,000,000.00
BD-2-7	GET	1,977,626.00	13,843,382.00
Total Project Cost (\$)		2,977,626.00	20,843,382.00

B. Indicative Project description summary

Project Objective

To conserve globally important biodiversity and enhance ecosystem services in the Indio-Maíz Biological Reserve (RBIM) in partnership with indigenous peoples and local communities

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Strengthening the enabling environment to improve the governance and management of the Indio Maiz Biological Reserve (RBIM)	Technical Assistance		<p>1.1.1 Participatory Management Plan and Action Plan (PMP, 5 years) for RBIM developed jointly by MARENA and territorial authorities in consultation with local communities, approved and under implementation by partners in accordance with Annual Action Plan that is monitored. Plan includes:</p> <ul style="list-style-type: none">• governance provisions for joint management and subsequent upscaling to other protected area/ production landscapes;• business plan aligned with sustainable financing framework of RBIM;• M&E plan to track the status of (i) biodiversity and (ii) ecosystem goods and services benefiting local communities, based on framework developed for RBIM (Output 4.1).	GET	788,215.00	5,517,505.00

1.1 Legal, regulatory and institutional instruments and mechanisms established; and supported by national, regional, municipal and territorial authorities, in association with local communities, to provide integrated landscape planning, management and governance within a mosaic of conservation and production areas inside the RBIM.

Indicators:

(i) 316,729.60 ha under management plan, leading to conservation and sustainable use / high-value conservation area with / through avoided deforestation and degradation; and increased vegetation cover. (measured by METT) (CORE indicator 1)

(ii) Percent of indigenous communities living within RBIM adopting the commitments in the PMP

(iii) Number of management agreements accommodated within relevant policies and legislation signed between Indigenous Territories and users of the reserve.

1.1.2 Provisions to apply a landscape approach to RBIM and surrounding production systems incorporated within relevant land use legislation and policies, notably in the agriculture, livestock, tourism and forestry sectors, in coordination with the GEF FOLUR project in Nicaragua (GEFID 10559).

1.1.3 Landscape Forum and associated Working Group for RBIM, which includes regional, municipal territorial government, CSOs, communities and private sector representatives, established to respectively inform and develop the RBIM Management Plan and to support delivery of its Action Plan.

2. Strengthenin g capacity of local and indigenous communitie s in landscape managemen t to conserve biodiversity	Technical Assistan ce	<p>2.1 Capacities of Territorial governments and local communities strengthened to manage landscapes in a holistic, integrated manner: safeguarding biodiversity within protected areas and managing land under production sustainably.</p> <p>Indicators</p> <p>(i) Increase in institutional capacity for landscape management, measured by METT Indicators (Core Indicator 1).</p> <p>(iii) Number of project beneficiaries (at least 30% women) at multiple levels of government involved in training and / or local communities involved in improved landscape management practices in the RBIM</p>	<p>2.1.1 Modular Capacity Building Programme on Integrated Landscape Management, biodiversity conservation, and sustainable production, designed and delivered across relevant sectors operating within RBIM</p> <p>2.1.2 Territorial and central government extension services strengthened to support delivery of practices and activities established in the agreed PMP for RBIM (Output 1.1.1)</p>	GET	400,000.00	3,200,000.00
3. Participatory managemen t of the Indio-Maíz Biological Reserve (RBIM)	Investme nt	<p>3.1. Agricultural pressures are reduced and resilience increased, leading to restoration and improved conservation of natural resources and ecosystem functions</p> <p>Indicators</p>	<p>3.1.1 Implementation of the Participatory Management Plan (Output 1.1.1) to address the drivers of degradation and maintain ecosystem services, based on:</p> <ul style="list-style-type: none"> • Forest restoration activities • Agroforestry activities • Improved agropecuary activities 	GET	1,300,000.00	9,100,000.00

-140,000 hectares of forest affected by natural disasters within the RBIM undergoing restoration processes (project indicator)
-20,000 hectares degraded by human activities within the RBIM under SFM (Agroforestry) and SLM practices (project indicator)
-Sustainable use agreements established between local communities located in RBIM and Indigenous Territories in the framework of Law 445
-3,300,000 tCo2eq avoided/eliminated over the 5-year period (CORE Indicator 6)
-Increase in income of indigenous communities, relative to the baseline (tbd)

3.1.2 Improved livelihood opportunities for local communities arising from implementation of the Participatory Management Plan, including:

- Sustainable production / organic labeling of wood and NWFP;
- Agroecology;
- Added value and premium prices for certified products;
- Plantations for medicinal and aromatic plants;
- Ecotourism, with local guides.
- Identification and development of community-based tourism products that reflect local cultures;
- Strengthening of local companies to promote, develop and manage tourism based on responsible tourism principles

3.1.3 Capacity of local communities (targeting 50% women and youth) strengthened to support the implementation of improved livelihood activities, including (i) managing enterprises effectively, (ii) acquiring leadership skills, (iii) entrepreneurial capacities, (iv) financing and investing.

4. Knowledge management, monitoring and evaluation.	Technical Assistance	<p>4.1 Increased effectiveness of landscape management through improved digital access and management of information and knowledge, including the state of biodiversity and its ecosystem, and benefits to communities and civil society. Indicators</p> <p>(i) Fully functional and operational Landscape Information and Knowledge Management System providing information to decision-making processes</p> <p>(ii) Monitoring of results on the state of biodiversity and ecosystem goods and services, training and outreach materials, best practices, and lessons disseminated through LIKMS and a series of regional, national, and Mesoamerican events during years 3-5.</p>	<p>4.1.1 Web-based Landscape Information and Knowledge Management System (LIKMS) designed, operational and accessible for monitoring: (i) biodiversity and (ii) ecosystem goods and services that benefit indigenous and afro-descendant and local non-indigenous communities; and for information purposes, including access to training modules and outreach materials.</p> <p>4.1.2 Project implementation and informed decision-making by operationalization of the monitoring and evaluation system, including the incorporation of a gender perspective, social inclusion (for example, youth, indigenous peoples, Afro-descendants and local communities) and adherence to social and environmental safeguards.</p> <p>4.1.3 Project results and lessons learned shared among stakeholders and more broadly with the National Protected Area System (SINAP) as well as with neighboring countries participating in the Mesoamerican Biological Corridor</p>	GET	347,619.00	2,033,333.00
Sub Total (\$)					2,835,834.00	19,850,838.00

Project Management Cost (PMC)

GET	141,792.00	992,544.00
Sub Total(\$)	141,792.00	992,544.00
Total Project Cost(\$)	2,977,626.00	20,843,382.00

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of the Environment and Natural Resources (MARENA)	Public Investment	Investment mobilized	2,500,000.00
Recipient Country Government	Ministry of the Environment and Natural Resources (MARENA)	In-kind	Recurrent expenditures	1,500,000.00
Recipient Country Government	Ministry of Family, Community, Cooperative and Associative Economy (MEFCCA)	In-kind	Recurrent expenditures	54,000.00
Recipient Country Government	Nicaragua Tourism Institute (INTUR)	In-kind	Recurrent expenditures	306,997.00
Recipient Country Government	Autonomous Regional Government of the South Caribbean Coast (GRACCS)	In-kind	Recurrent expenditures	378,727.00
Recipient Country Government	Autonomous Regional Government of the South Caribbean Coast (GRACCS)	Public Investment	Investment mobilized	441,735.00
Recipient Country Government	Bluefields municipal government	In-kind	Recurrent expenditures	123,449.00
Recipient Country Government	Bluefields municipal government	Public Investment	Investment mobilized	2,550,345.00
Recipient Country Government	El Castillo municipal government	In-kind	Recurrent expenditures	118,266.00
Recipient Country Government	San Juan de Nicaragua municipal government	In-kind	Recurrent expenditures	51,500.00
Recipient Country Government	San Juan de Nicaragua municipal government	Public Investment	Investment mobilized	162,255.00

Civil Society Organization	Universities, NGOs	In-kind	Recurrent expenditures	10,000.00
Beneficiaries	Rama and Kriol Indigenous Territorial Governments	In-kind	Recurrent expenditures	10,000.00
Donor Agency	CABEI / GCF project (BioCLIMA)	Loans	Investment mobilized	8,603,640.00
GEF Agency	FAO	In-kind	Recurrent expenditures	108,000.00
Donor Agency	CABEI / GCF project (BioCLIMA)	Grant	Investment mobilized	3,924,468.00

Total Project Cost(\$) 20,843,382.00

Describe how any "Investment Mobilized" was identified

The Government of Nicaragua will mobilize resources in support of the GEF grant through: (i) the GCF-funded Bio-CLIMA project: "Integrated climate action to reduce deforestation and strengthen resilience in the BOSAWÁS and Río San Juan biospheres", which will be considered for funding during the 27th meeting (9-12 November) of the Board of the Green Fund for the Climate (GCF). The GCF project has a total value of \$115 million dollars, including \$57 million in loans and \$26 million in grants. Approximately \$12.5 million of the GCF funds will be used as co-financing for this GEF project, namely \$3.9m as grant (out of the \$26m) and \$8.6m as loans (out of the \$57m). The Central American Bank for Economic Integration (CABEI) will implement the GCF project. This GEF-7 and BIO-CLIMA project will finance activities that contribute to the implementation of the ENDE-REDD + Strategy of Nicaragua in the Caribbean region, using a programmatic approach detailed in Part II (ii) The government will also mobilize public investment funds for allocation to MARENA, GRACCS and the municipal governments of Bluefields and San Juan de Nicaragua.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Nicaragua	Biodiversity	BD STAR Allocation	2,977,626	282,874	3,260,500.00
Total GEF Resources(\$)					2,977,626.00	282,874.00	3,260,500.00

E. Project Preparation Grant (PPG)
PPG Required



PPG Amount (\$)				PPG Agency Fee (\$)			
100,000				9,500			
Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Nicaragua	Biodiversity	BD STAR Allocation	100,000	9,500	109,500.00
Total Project Costs(\$)					100,000.00	9,500.00	109,500.00

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
316,720.62	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
316,720.62	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Indio-Maiz	30628	Others	316,720.62						

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

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

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

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

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

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

Type/Name of Third Party Certification

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

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

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

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

Documents (Please upload document(s) that justifies the HC VF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	3300000	0	0	0
Expected metric tons of CO ₂ e (indirect)	0	0	0	0

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	3,300,000			
Expected metric tons of CO ₂ e (indirect)				

Anticipated start year of accounting	2022
Duration of accounting	5

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

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

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

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

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	2,000			
Male	3,000			
Total	5000	0	0	0

Part II. Project Justification

1a. Project Description

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

1. **National context.** Nicaragua is the largest country in Central America, covering 130,373 km². The country has a population of approximately 6 million inhabitants with an annual population growth rate of 1.0% (INIDE, 2015). The rural areas of Nicaragua are home to the majority of people living in poverty (65%) and extreme poverty (80%), whose livelihoods depend largely on subsistence agriculture, forests and natural resources (BCN 2015).
2. The Nicaraguan population is made up of a high cultural and multi-ethnic diversity: Mestizos, Miskitos, Ramas, Creoles, Afrodescendants, Mayangas, Ulwas, Nahoas, Xius and Chorotegas (INIDE 2015). The country is divided into three ecological regions that are home to 21 tropical plant formations, 6 Azonal, and are home to 7% of the world's biodiversity. It has a National System of Protected Areas (SINAP), composed of 72 protected areas (64 terrestrial and eight marine-coastal); which are constituted in nine management categories that represent 25.5% of the national territory. In addition, 151 private wildlife reserves have been created under ministerial resolutions recognized by the Ministry of Environment and Natural Resources (MARENA); and the municipalities have declared 58 ecological parks under ordinances with MARENA.^[2]
3. Nicaragua's relatively extensive network of protected areas is not as yet comprehensive in terms of conserving the entire range of its globally important biodiversity. Twenty two sites are internationally recognised as Key Biodiversity Areas (KBAs), 16 of which are Important Bird Areas (IBAs), and the average coverage of each KBA by the national PAs network is 68.4% as depicted in Figure 2^[3].

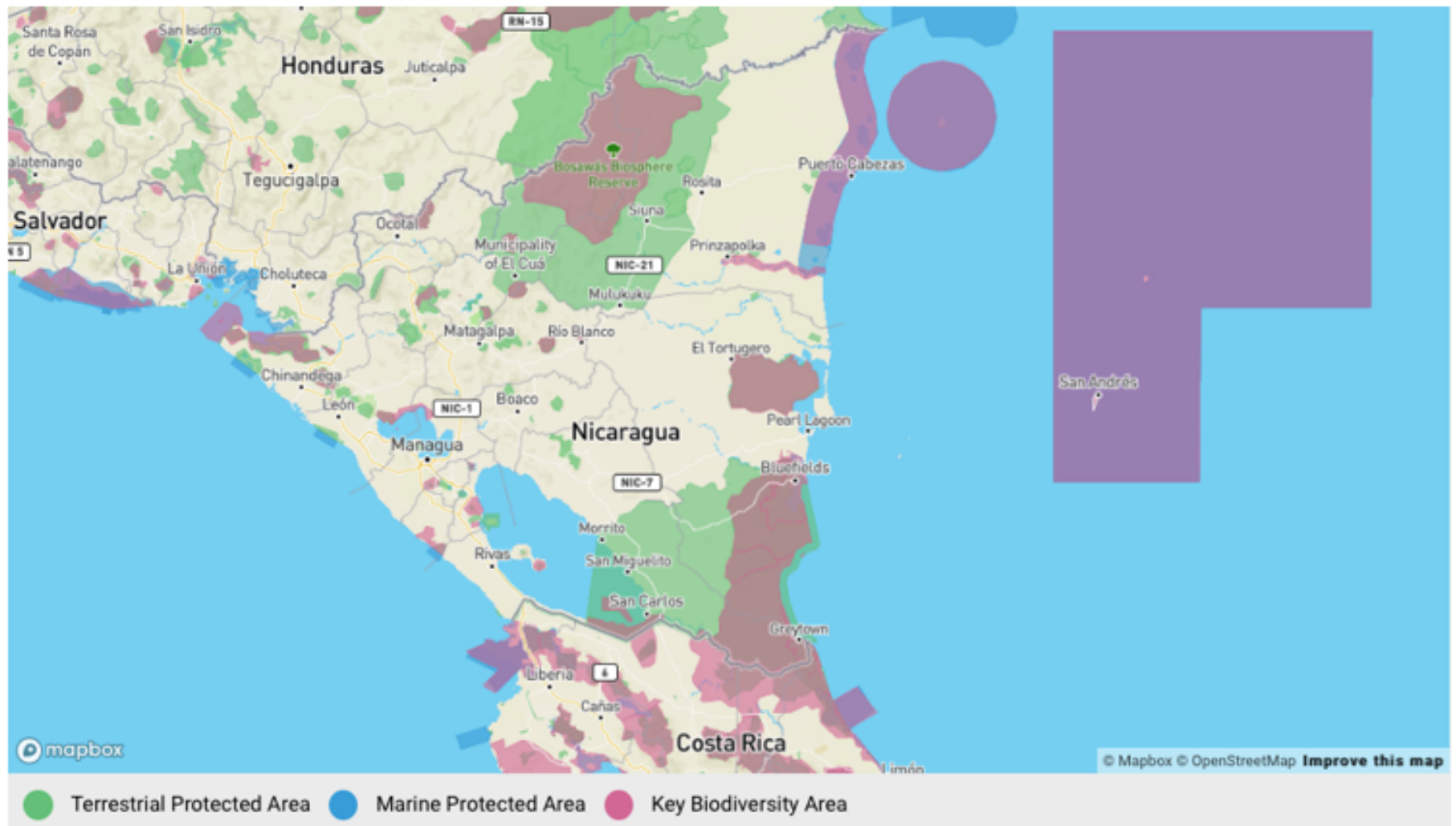


Figure 2: Map of Nicaragua showing the distribution of its KBAs and extent of their protection within the national network of protected areas. The project site, Indio-Maiz Biological Reserve, is a KBA that lies in the South-East corner of the country, bordering KBAs in neighbouring Costa Rica.

Source: IBAT Country Profile for Nicaragua (https://www.ibat-alliance.org/country_profiles/NIC, accessed June 2020.)

4. **Forests.** Nicaragua has the second largest stronghold of tropical forests in the American continent, with a high richness of ecosystems and biological diversity. By 2015, the country's forest cover was 4.6 million ha, distributed in 4 types of forest according to their biological composition: broadleaf forest, coniferous forest, palm forest and mangrove forest. 63% of the forests are found on the Caribbean Coast, 29% in the Central region and 8% in the Pacific. At the national level, 88% of the forest cover is broadleaf forest, 7% coniferous, 3% mangrove and 2% palm.

5. In 1969, there were 8 million hectares of natural forests in Nicaragua. However, between 1983 and 2015 4.32 million hectares of forests were deforested as the agricultural frontier advanced east towards the Caribbean Coast (See Figure 1). There is a clear relationship between forest loss and the increase in pasture areas, mainly in the areas where the agricultural frontier advances towards the Caribbean Coast. Currently 73% of the national territory has

6. In 2020, Nicaragua presented to the United Nations Framework Convention against Climate Change (UNFCCC) its baseline CO2 emissions and removals generated by deforestation and forest degradation for the period 2005 - 2015. During this period, an annual gross deforestation rate of 147 thousand ha and a cover recovery of 46 thousand ha (which represents more than 2.6 million tons of carbon dioxide removed from the atmosphere) were estimated, generating a net balance of 101 thousand ha deforested annually.

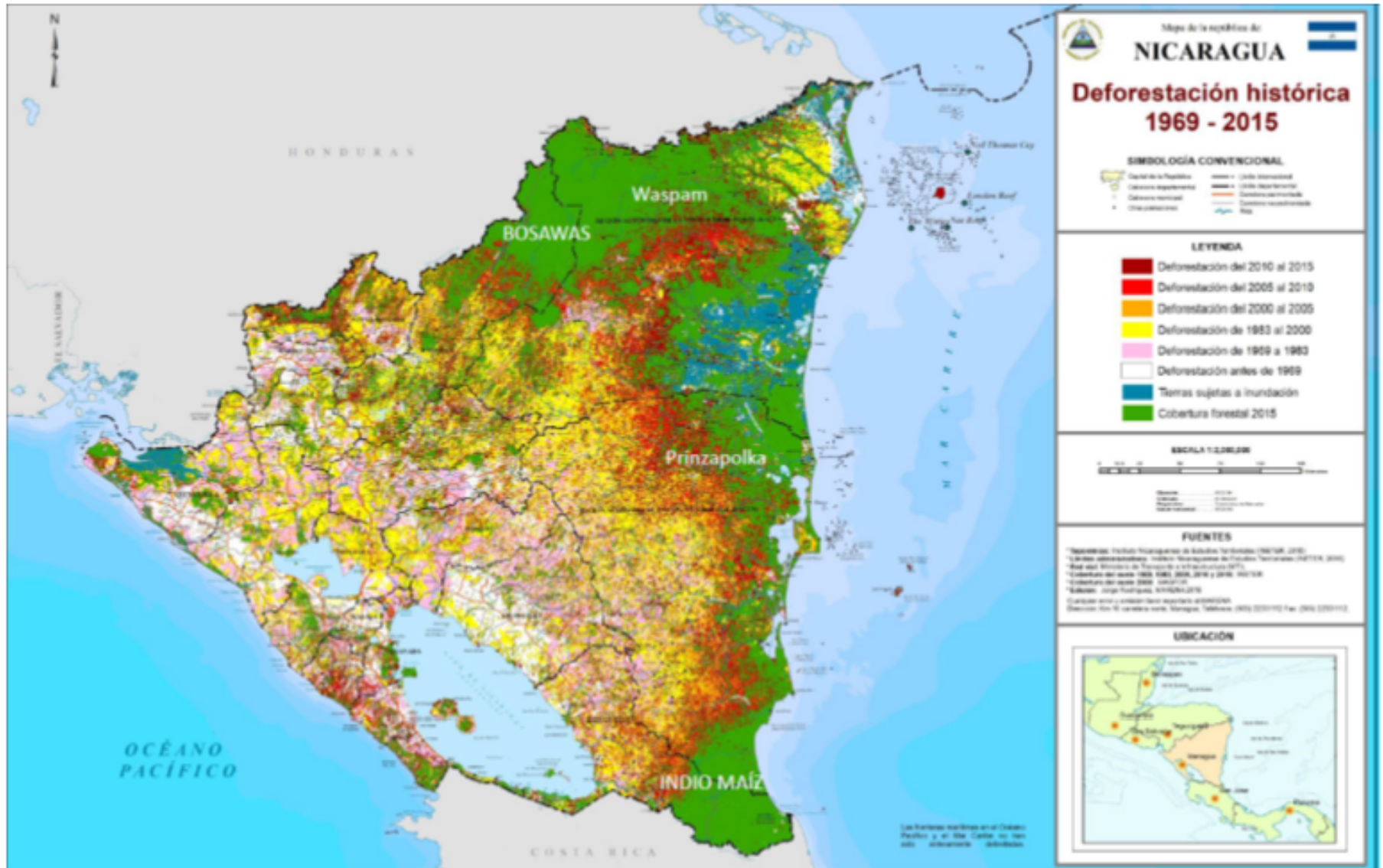


Figure 1: *History of deforestation eastwards across Nicaragua to Caribbean Region, with the largest natural forests remaining in the north (Bosawás) and south (Indio-Maíz).* **Source:** Bio-CLIMA Funding GCF Proposal, V.4 June 2020.

7. To reverse this situation, the Government of Reconciliation and National Unity (GRNU) of Nicaragua is in the process of implementing the National Strategy for the Reduction of Emissions from Deforestation and Forest Degradation (ENDE-REDD+ Strategy). This strategy addresses fundamental elements related to conservation-production as a fundamental axis for the socio-environmental and climatic development of the country with the goal of reducing the deforestation rate by 50% by 2040, through a model that contemplates the improvement of intensive production systems, employment and the conservation of biodiversity .

8. The Emissions Reduction Program (ER-P) to combat climate change and poverty in the Caribbean coast, the BOSAWÁS Biosphere Reserve and the Indio-Maíz Biological Reserve is the main focus of ENDE-REDD+ Strategy and is designed to address the main cause of deforestation, namely the expansion of the agricultural frontier driven by agricultural and livestock production systems (Figures 2 and 3). The ER-P proposes using a territorial model of protection of production that is more intensive, more equitable and less dependent on carbon. It is expected to reduce net CO2 emissions by 11 million tons over 5 years within the project accounting area (Figure 3).

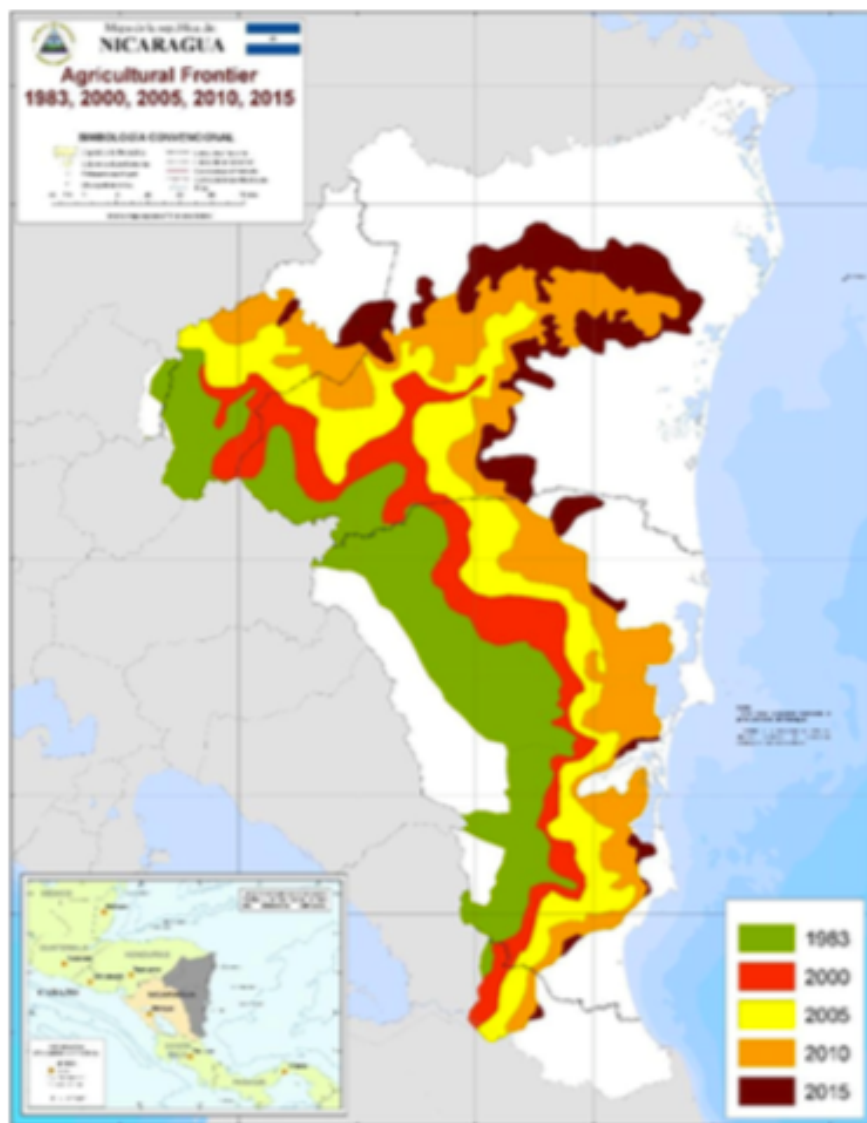


Figure 2: Map of Caribbean Region showing expansion of the agricultural frontier from 1983 to 2015.

Source: Caribbean Coast Emission Reduction Program Document

Figure 3: Map of Caribbean Region, prioritised for emissions reduction under the REDD+ Strategy, shows indigenous territories and intervention areas under ER-P.

Project area:

9. The proposed project will target the Indio Maiz Biological Reserve (RBIM), located in the SouthEast corner of the country in the border with Costa Rica. While project resources will be invested inside the RBIM, the project takes place in the context of ongoing activities within the Rio San Juan Biosphere Reserve (RSJBR). These include (i) a GCF proposal (Bio-CLIMA project) that aims to reduce deforestation and strengthen resilience in the BOSAWAS and RSJBR;^[4] and (ii) the GEF-funded Nicaragua FOLUR project (GEFID 10599) currently under preparation, which will be implemented in the buffer zone surrounding the RBIM. Projects (i) and (ii) above are discussed in further detail in section 1a.3. The analysis below presents a summary of the status of the area of influence of the project. When possible, a distinction is made between the activities that take place both within and outside of the RBIM.

Rio San Juan Biosphere Reserve (RSJBR)

10. The RSJBR area presents an exuberant natural wealth and culture, involving conservation areas and ecological connectivity zones of regional importance, such as the Mesoamerican Biological Corridor and the Alliance of the 5 great forests of Mesoamerica, likewise, this area presents a high level of biodiversity, concentrating the largest remnants of broadleaf forest ecosystems in the country and is the habitat of endemic and endangered flora and fauna species (Figure 5).

11. The geographic area of influence of the project includes the municipalities of San Juan de Nicaragua and El Castillo in the department of Río San Juan, as well as Bluefields in the Autonomous Region of the South Caribbean Coast (RACCS). The Cerro Silva and Punta Gorda nature reserves are located in Bluefields, a large part of which constitutes the territories of the Rama and Kriol indigenous peoples and Creole communities (Figure 4).

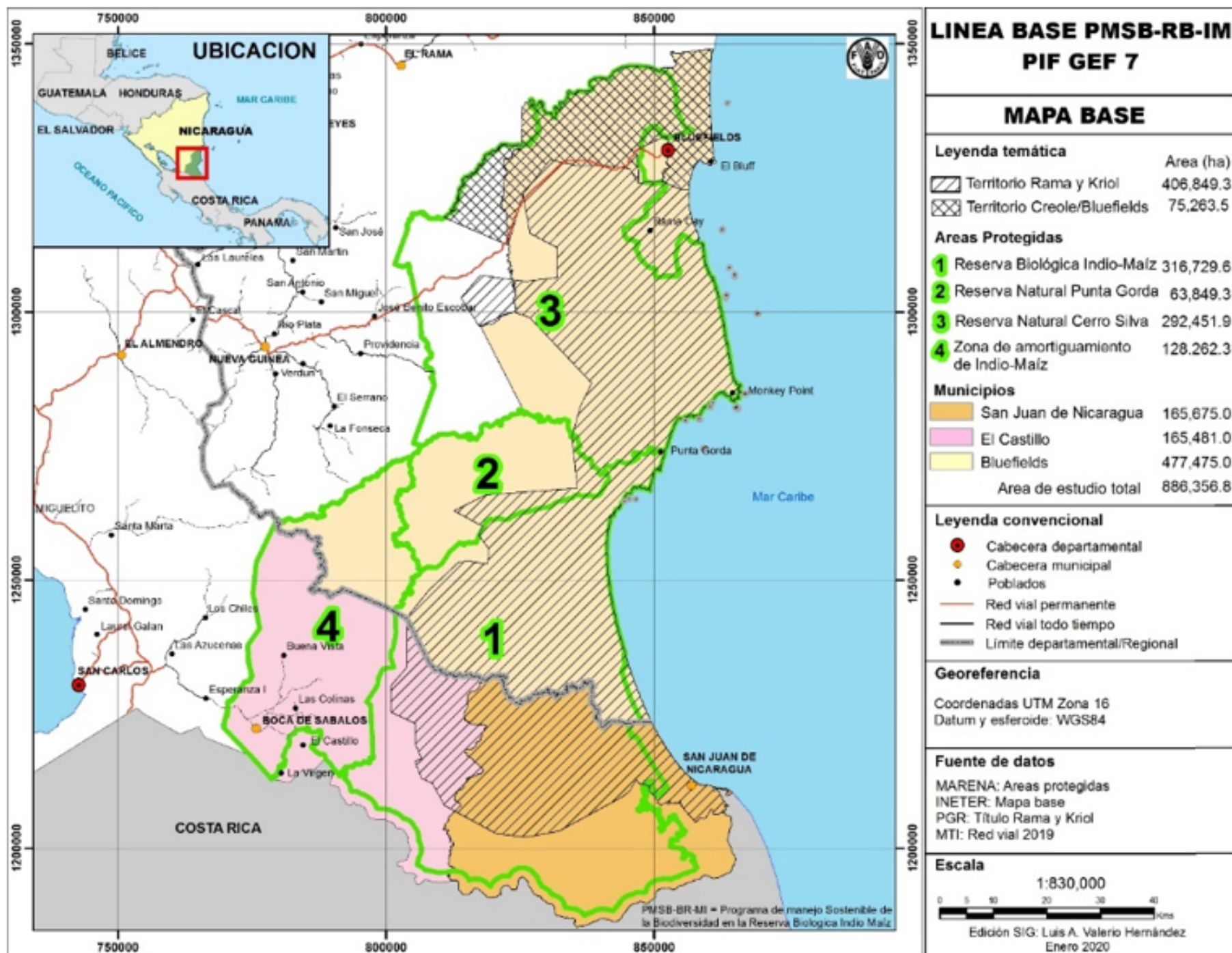


Figure 4: Project 'area of influence', comprising: (1) Indio-Maiz Biological Reserve (Core Area of RSJ Biosphere Reserve) and its (4) Buffer Zone; (2) Punta Gorda and (3) Cerro Silva natural reserves; all of which constitute part of Río San Juan Biosphere Reserve. Western extent of project area is determined by catchment boundaries: thus, the project area drains eastwards into the Caribbean, whereas catchments to its west supply Lake Nicaragua and ultimately drain into the Pacific Ocean. Municipalities and indigenous territories are also shown.

Indio Maiz Biological reserve

12. The proposed project targets core area of the Indio-Maíz Biological Reserve (WDPA ID 30628) established in 1999 with 316,720.62 ha. This area is an integral part of the Río San Juan Biosphere Reserve (1,392,900 ha) declared in 2003 by UNESCO and borders protected areas in Costa Rica. RBIM is the second largest lowland tropical forest in Nicaragua, rich in biodiversity (see Annex D) and described by biologists at the University of California as "the jewel of Central American nature reserves". Likewise, it is an important area of birds (IBA NI032 with a registered area of 321,256 ha), recognized for its population of endangered Green Macaw (*Ara ambiguus*), estimated at a total of 500-1000 individuals (O. Chassot); the Jaguar (*Panthera onca*), and the endangered Baird's Tapir (*Tapirus bairdii*).

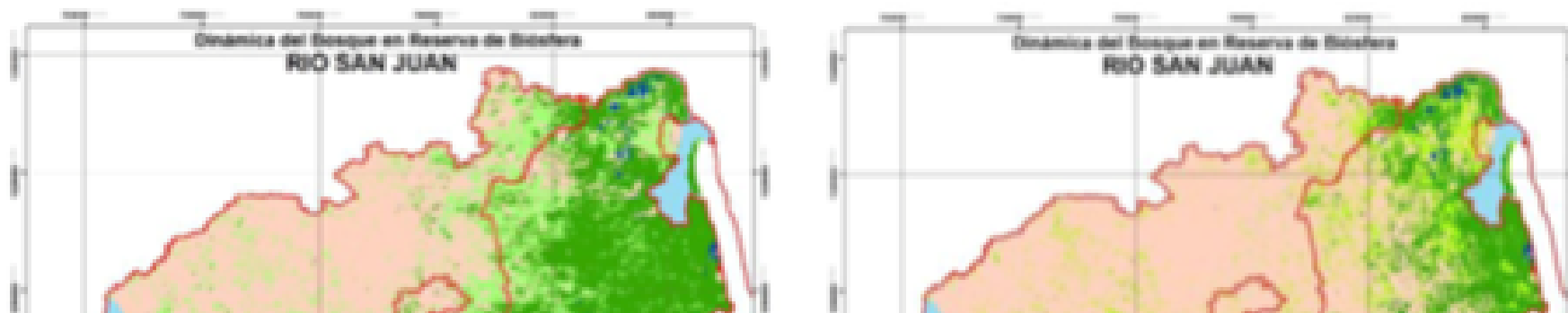
Land use and ecosystems

13. The project's geographic *area of influence* is 808,631 ha (surface area of the three municipalities)^[5], of which 68.2% is forestland, (closed broadleaf, open broadleaf, palm), 26.2% is under agriculture (for crops and/or livestock) and 5.7% is classified under "other uses". Within the RBIM, 97.8% of the land is forestland (closed broadleaf, open broadleaf, palm), 1.9% is under agriculture and 0.4% comes under "other uses". In the buffer zone, 25.6% is forestland, 70.5% is under agriculture and 3.9% is classified under "other uses". As part of preparing this PIF, a baseline study of current land use, forest management in protected areas and the intervention corridors was undertaken for both RBIM and its *area of influence*.^[6] This will be updated and further elaborated as part of the project preparation grant (PPG).

Land degradation, deforestation and their drivers

14. Estimates of forest degradation between 2005 and 2015 are: 7.9 % (0.8% per year) for RBIM (core zone of the Biosphere Reserve), 23.6% (2.4% per year) for Indio-Maiz buffer zone and 17.2 % (1.7% per annum) for the project's *area of influence*. In a recent study^[7], consumption of fuelwood and coal, forest fires, shifting (swidden) agricultural practices, felling of timber, illegal extraction and trafficking of forest products and environmental emergencies or disasters caused by natural phenomena were found to be the main drivers of forest degradation nationwide; and this also applies to RBIM's buffer zone (MARENA 2019).

15. During the 2005-2015 decade net deforestation in the RSJBR was 103,043.2 ha, based on an estimated 112,790 ha deforested against a forest gain of 9,746.8 ha. The annual deforestation rate was 10,304.3 ha. This compares with estimates of 526 ha per annum for RBIM (biosphere reserve core zone) and 2,675.4 ha per annum for the IndioMaiz buffer zone over the same period. Overall impact is depicted in **Figure 5**: RBIM (core zone of the biosphere reserve) is becoming fragmented; the two natural reserves abutting its northern border have lost considerable forest; and most of the Indio-Maiz buffer zone has been deforested.



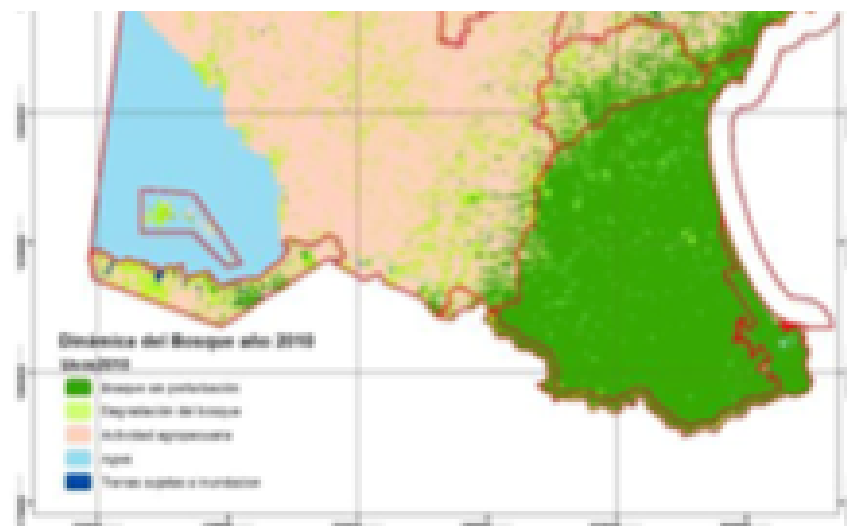
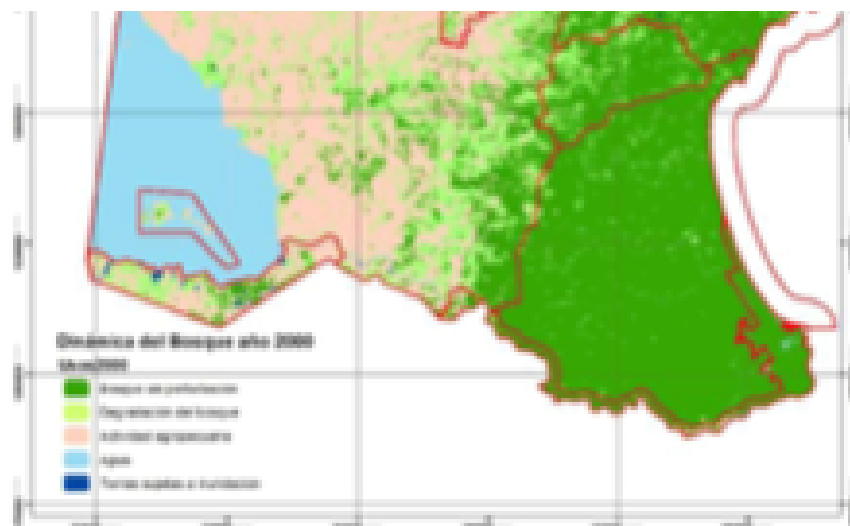


Figure 5. Deforestation in the RSJBR between 2000 and 2015

(RBIM located in the SouthEast corner of the map)

16. Among the indirect or underlying causes of deforestation is the limited access to credit, as a result of complex value chains. This weakens their integration and the alliances among financial institutions; local and international markets, with little emphasis placed on quality or productive method; the low price of land and forest goods and services; low-yield, inefficient production chains such as that in timber, to which not much value is added; environmental services for which there is no demand in the national market, while international markets are undergoing contraction; poverty and migration; limited technical knowledge and technological capacity; low levels of associative culture; and farm management based on empirical knowledge and managerial styles handed down across generations that make innovation practically impossible.

17. The legal and policy framework in Nicaragua for natural resources and forestry management are robust, but their enforcement or use is irregular or partial, leading to gaps in coverage, bureaucratic procedures and personalized interpretations. The availability, quality and exchange of information regarding the soil and natural resources at national level and specifically in the Caribbean is often dispersed among the various institutions, which hampers strategic planning, timely decision-making and more effective day-to-day soil and natural resources management. The lack of updated or real time information both at regional and local levels hinders timely responses to deforestation and possible conflicts over land tenancy, and hampers decision-making as concern long-term management and planning, based on solid information.

18. MARENA has prepared a preliminary estimate of the baseline CO2 emissions and absorptions for the geographic area of influence covered by the municipalities of Bluefields, El Castillo and San Juan de Nicaragua for the years 2005-2015, using its ENDE REDD+ methodology. This is based on the 2006 the Intergovernmental Panel on Climate Change (IPCC) guidelines. Details are provided in **Annex E**.

Ecosystemic services

19. The project intervention area comprises tropical rainforest, the most species rich of terrestrial ecosystems, that provides important services such as: regulating the balance of oxygen/carbon dioxide for life on Earth, climate (global temperature) and disturbances caused by storms, draughts, floods, tornados and landslides; fostering the formation of organic humus soils; and providing a refuge for wild species of plants, animals and their genetic resources. In addition, as part of the Mesoamerican Biological Corridor, it is an important stop-over for neotropical migratory birds.

20. The area consists of four important basins, from which the San Juan, Punta Gorda, Indio and Maíz rivers flow into the Caribbean Sea. These rivers serve the indigenous communities as a means of transport, as well as being a source of medicinal plants, food, other raw materials and providing opportunities for recreation, enjoying the natural beauty and generating income from ecotourism.

Climate change

21. Nicaragua is responsible for 0.03% of global greenhouse gas emissions, however, it is classified as the sixth most vulnerable country to climate change according to the report of the Global Climate Risk Index 2017, presented by Germanwatch at COP22 (MARENA 2019).

22. Climate change exacerbates existing pressures on the project area, leading to further land degradation, loss of soil structure and its erosion, and ultimately contributing to air pollution (e.g. dust storms) and pollution of rivers from sediment run-off and associated agrochemicals. Due to its geographical position, RBIM is very exposed to frequent climate-related impacts, caused by excessive rainfall (hurricanes and tropical depressions) and droughts of varying intensity, frequently associated with the El Niño phenomenon (ENOS). In 1998, Hurricane Mitch caused damage in Nicaragua estimated at US\$ 1.3 billion, of which US\$ 244.6 million related to agriculture. By contrast, in 2001, one of the most severe droughts ever recorded caused losses estimated at US\$ 49.1 million, of which US\$ 41.4 were in agriculture. Many of the 162,000 persons who suffered serious damage when Hurricane Félix struck in 2007 have yet to recover. More recently, in November 2016, Hurricane Otto affected the Indio-Maíz Biological Reserve and severely damaged 22% of the area.

23. A surge in climate change extremes is anticipated, based on analyses of historical information and future scenarios for the period from 2010-2039. These include: a 0.7°C increase in temperature in the Caribbean region; a higher number of days in which maximum temperature exceeds 35°C; and 10% more dry days. Temperature increases are expected to be significantly higher in deforested areas, up to 50% more than the average temperature changes in tropical areas. These changes will affect the suitability of the main agricultural produce on which rural livelihoods depend in the Caribbean region, notably cattle and coffee.

Socioeconomic context

24. Population and ethnicity. The total population of the municipalities of Bluefields, El Castillo and San Juan de Nicaragua, estimated by the National Development Information Institute (INIDES 2016), is 92,957 inhabitants. Territorial governments administer the indigenous Rama Indians and Afro-descendant Kriols in the municipalities of San Carlos and Río San Juan; and there is a Kriol Communal Government in Bluefields.

25. **Indigenous Peoples.** In the geographic area of influence of the program are the Rama y Kriol Territorial Government and the Creole Communal Government of Bluefields. The Rama and Kriol communities are located in the direct geographic area of the program, integrating an inter-ethnic territory made up of nine communities and 23 keys, based on the historical alliances between the population of the Rama people and the Kriol communities south of Bluefields. They govern themselves in accordance with their own traditions and customs and on the basis of their self-determination. The branch communities are 6: Rama Cay; Tiktik Kaanu; Sumu Kaat; Wiring Cay; Bangkukuk, Indian River. There are 3 Kriol communities: Monkey Point, Corn River and Graytown.

26. According to Nicaragua's VIII Population Census there were 4,185 Ramas in 2005, the smallest indigenous population. The Rama-Kriol territorial government carried out a census in 2006, in which it identified 1,600 Ramas, distributed among nine communities, of which six are exclusively Rama (Rama Cay, Punta de Águila, Zompopera, Sumu Kaat, Río Indio and Río Kukra) and the other three are Rama-Creole (Monkey Point, Corn River and Punta Gorda).

27. The Indian River, Graytown and Corn River communities are located in RBIM (core zone of the Biosphere Reserve, totalling an estimated 1,038 inhabitants in 2020). The economy continues to be community-based, essentially at subsistence level with high rates of unemployment, and dependent on fishery, agriculture, hunting and community-based tourism. In recent years these communities have become more vulnerable because of families migrating from the municipalities of Nueva Guinea, San Carlos and El Castillo to the core zone in search of more fertile lands, especially around the source of Indian River.

28. Artisanal fishing is one of the most important activities for those communities located near urban centres such as Bluefields or San Juan de Nicaragua,, in particular because generates a cash income. It a pillar of the local economy in Rama Cay (the most important in the territory), Willing Kay and Monkey Point (northern RBIM), as well as in Indian River and San Juan de Nicaragua (southern RBIM), which is where the majority of the Rama-Kriol and Afro-descendants live..

29. Agricultural production is geared mainly towards local-consumption. Most prevalent crops are maize, beans, rice, Musaceae (plantain, bananas, guineos¹⁸⁹) and tubers (cassava, dasheen or taro and malanga). Pineapple, cacao and Robusta coffee have been introduced, promoted by some rural development organisations - more for personal consumption than commercial purposes. The later is limited by high costs of transport and restrictions on commercial activities inside a biological reserve. Local demand for medicinal plants (e.g. ipecac, basil, milleria, turmeric, astragalus and ginger) is also significant, their production being undertaken mostly by women. Coconuts are grown in the southern part of San Juan de Nicaragua (Graytown) and sold in Bluefields, San Carlos and Costa Rica. Most of these coconuts come from an abandoned plantation in Haulover, which is currently being exploited by Mestizo, Rama and Kriol communities. It provides a livelihood for an estimated 100-150 persons but runs the risk of being lost due to overexploitation.

30. Tourism is an activity of growing importance in the Rama-Kriol indigenous territory, based in the towns of San Juan de Nicaragua and Bluefields. In San Juan de Nicaragua, sport fishing and tours organized from San Carlos along the San Juan River have been successfully promoted among Nicaraguan and Costa Rican tourism. In the communities there are enterprising women who specialise in making handicrafts, using materials such as royal palm, bamboo, almonds, coyol palm, stilt palm (to make decorative arrows), clams, oysters and coconuts. Although enterprises are few and small, community members believe that an increase in visits from tourists could bolster their activity. For the moment they produce small amounts of various products that are in demand among Mestizo traders. There are also at least two enterprises in San Juan de Nicaragua that produce custom-made furniture, using local timber species.

31. During the preparation of the PIF, a preliminary socioeconomic study¹⁹¹ was carried out for both the core zone of the RBIM and its buffer zone, which will be completed with more detailed work in the phase of preparing the PPG.

32. **Economic activities.** In the project's geographic *area of influence* there are agricultural, forestry and tourism activities. The RBIM buffer zone is located in the municipality of El Castillo. The most important economic activity in the municipality is dairy farming (milk, curd, cheese, beef), often in association with pig farming. Most farmers also produce maize and beans. Recently, through a project sponsored by Taiwan, the Ministry of Family, Community, Cooperative and Associative Economy (MEFCCA) introduced and promoted the production of rainfed rice with noteworthy success. Also identified was substantial cocoa-growing by four cooperatives (COOSEMUCRIN, CODEPROSA, CCOPRACAFUD and ASIHERCA), who among them count some 295 members and have planted cocoa on a total of 610 hectares. Most of this cocoa production is agroforestry-based and takes place in association with several timber species and musaceans. Yields may vary between six and eight quintals (hundredweights) of dry cocoa per manzana (0.7 ha).

33. There are three large entrepreneurial investments that have a significant impact on employment, but also on the municipality's ecosystem. One of these is oil palm, with a sizeable plantation estimated at some 12,000 hectares. The company hires mostly men, although there are times of year when for certain activities, women join the work force. This investment is located in the eastern part of the municipality, relatively far from the RBIM, but has activated the local land market by acquiring several farms. The consequence is that having sold their land, these farmers migrate eastwards in search of other places to settle in the municipality. In doing so, they exert additional pressure on the RBIM. The production of oil palm is ongoing in at least 12 communities in El Castillo (Las Colinas, Boca de Sábalo, Mauricio Gutiérrez, El Castillo, Km 20, Che Guevara, Marlon Zelaya, Laguna Blanca, Buena Vista, Marcelo, El Vivero and Bréne).

34. There is also a cocoa company active in the municipality (Agroindustria S.A.), which has planted cocoa on 1,500 ha. This too is an important source of employment. Unlike the small farmer production systems, large-scale cocoa production is more like single-cropping. The aforementioned company has cocoa in seven communities: La Libertad, Nueva Quezada, Buena Vista, Mauricio Gutiérrez, Las Colinas, Las Maravillas and Che Guevara. The communities of Nueva Quezada and Las Maravillas are fairly close to the RBIM.

35. Beechwood or white teak. A forestry company is also in the area and has invested in a 1,000 ha beechwood plantation, an species exotic to the zone that has replaced other timber species. It was noted some of these trees were planted along riverbanks. The plantation covers land in six communities: Las Colinas, El Puentón, Che Guevara, Marcelo, Buena Vista and El Vivero.

36. There are no large cooperatives in the municipality of San Juan de Nicaragua, which means that the economic dynamics concentrate on independent entrepreneurs who buy up coconuts and fish. There is currently a Multiple Services Collection Centre, owned by a cooperative which has been trying to make it functional. In Bluefields municipality there are to date no relevant private agricultural companies due to factors related to distance, road access, communications and issues regarding the legality of the properties. The most pertinent economic activity is a private investment related to the extraction of hydrobiological resources. In the town of Bluefields the company owns some tourist-oriented establishments.

Threats and barriers to be overcome by RBIM project activities.

37. **Main cause of deforestation and forest degradation** is considered to be the expansion of agriculture and extensive cattle-ranching, based on the Government of Nicaragua's assessment of Forest Reference Emission Levels (NREF) for the 2005-2015 period¹⁴ and other studies mentioned previously¹⁵. Other threats include the consumption of fuelwood and coal, shifting cultivation, illegal extraction of timber and forest products, forest fires and natural disasters such as hurricanes (MARENA 2019). Within RBIM, there are three distinct processes driving deforestation and forest degradation depending on their location (see Figure 6 below), namely:

- (i) **Western part of the reserve**, where the expansion of the agricultural frontier has been the lead cause of deforestation. Landless people and poor farmers have settled within the border of the RBIM and produce low cost meat, milk, and other crops based on deforestation.
- (ii) **North and NorthEastern part of the reserve**, where indigenous communities are located. The main threats are forest and land degradation from unsustainable and illegal wood extraction and wood consumption, as well as shifting cultivation. Production systems are characterized by low technological capacity as local populations have limited access to capital, credit and technical assistance.
- (iii) **Center and SouthEastern part of the reserve**, which was severely affected by climate induced natural disasters. In 2016, Hurricane Otto caused significant damage to 44% of the reserve, and 2018, approximately 5,000 ha of palm forest were damaged by fires.

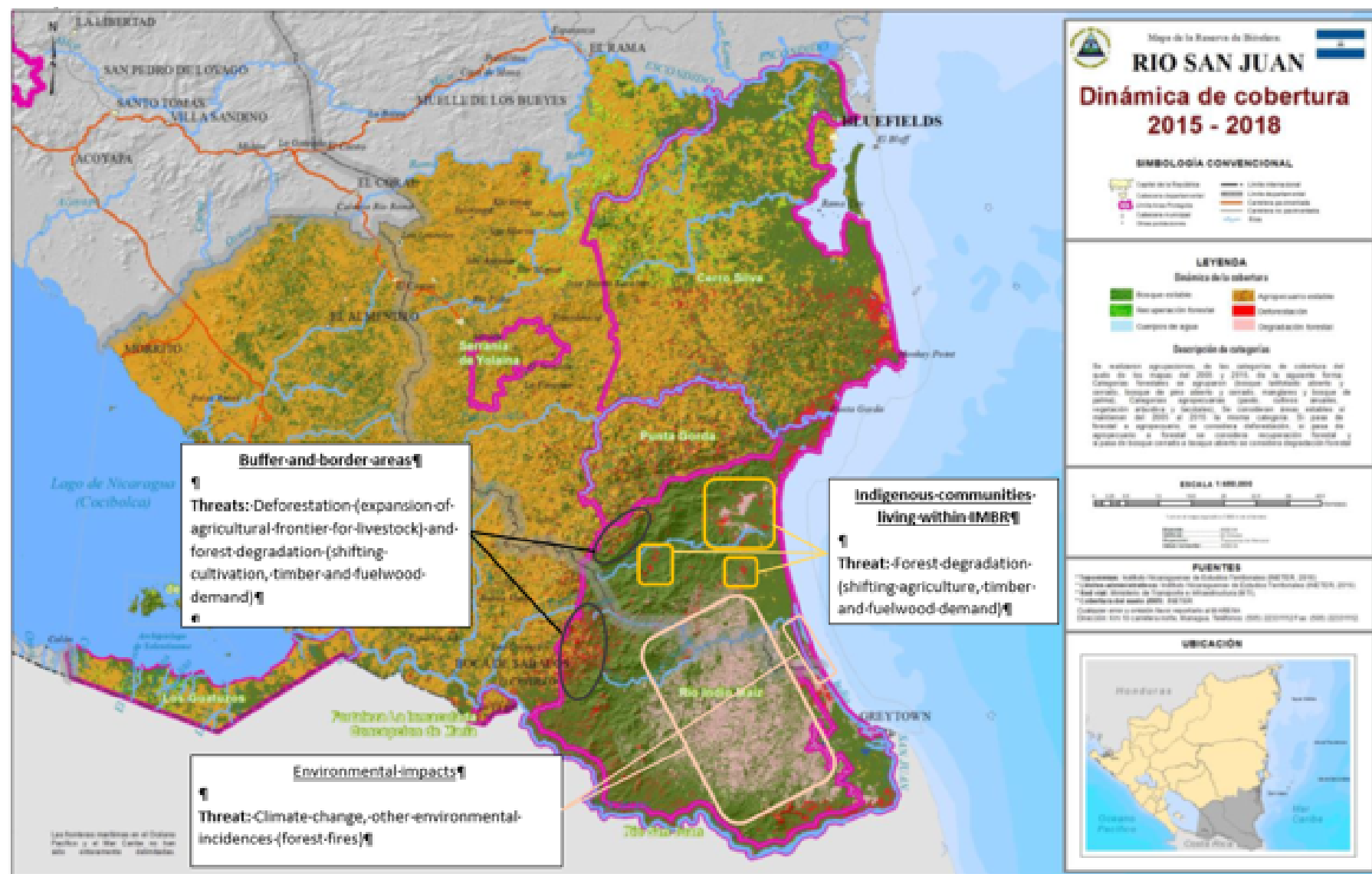


Figure 6. Main Threats to natural resources in IMBR

38. **Evaluation of the main barriers faced by REDD+[11].** Recent policy and programme initiatives of government, such as the titling of indigenous territories, investments in regional autonomy, large-scale monitoring of soil use, intensification of cattle-ranching and soil use, and the reforestation and regeneration of degraded land are starting to slow down deforestation. However, these measures could be enhanced by addressing the following interrelated obstacles: i) **low profile of environmental and forest protection** in the government's sectoral strategies, plans and operational budgets; ii) **weak institutional governance framework, reflected in the lack of a management plan, unintegrated sectoral policies and interventions**, such as a preference for agricultural development in places more suitable for forestry; iii) **limited institutional presence** in extensive areas of the forest along the Caribbean Coast where travel costs are high due to limited means of transport and long distances; iv) **cultural barriers** among some segments of the population, where the value of the nation's forest is not recognised and deforestation is promoted[12]; v) **economic and knowledge barriers** on the part of both borrowers and lenders, to which must be added high

transaction costs, lenders who limit access to credit and technical assistance and, in general, hamper the adoption of more sustainable production practices, in particular on the part of small and medium producers; and vi) **high costs and limited economic returns of conservation**, discourage public investment and ultimately, therefore, the adequate defence of protected areas. Ecotourism, potentially a significant source of private investment in support of conservation, is incipient and operates at a relatively small scale (MARENA 2019).

39. **Financial sustainability for managing protected areas effectively** is a major challenge and, despite its national, regional and global importance as refuge for biodiversity and reservoir of goods and services that benefit the local communities and the nation, RBIM's tropical forest continues to be eroded. In order to achieve financial sustainability, an integrated and holistic approach is needed that takes into account RBIM's economic contribution to local, sectoral and national development, while implementing strategies that augment income from tourism, emission reduction payments from the ENDE REDD+ initiative and other means of enhancing the livelihoods of indigenous and local people.

40. Annex G provides a detailed analysis of threats, barriers and possible contributions from the proposed project. The following barriers have been identified and must be overcome in the framework of the project being proposed herein for the Indio-Maíz Biological Reserve.

Table 1: Current restrictions and barriers to the sustainable management of biodiversity in the Indio-Maíz Biological Reserve

National requirements for the sustainable management of biodiversity in the Indio-Maíz Biological Reserve	Current restrictions and barriers – Nicaragua
<ul style="list-style-type: none"> To have a planning instrument for sustainable management of the RBIM. 	<ul style="list-style-type: none"> The RBIM management plan needs to be updated and made official. It is necessary to update the territorial and communal development plans. It is necessary to update the internal regulations of the communal and territorial governments.
<ul style="list-style-type: none"> Strengthened institutional capacity for management and handling of the RBIM. 	<ul style="list-style-type: none"> Strengthen the articulation and institutional technical capacity for the monitoring of the protected area.
<ul style="list-style-type: none"> Promote fully-fledged and effective participation of indigenous peoples and afrodescendants, local communities, youth, women and girls in decision-making that concerns conservation and sustainable use of the biological diversity, in accordance with the Caribbean Coast Development Plan. 	<ul style="list-style-type: none"> Mobilization of funds for community initiatives or undertakings. Strengthen the implementation of the FNA
<ul style="list-style-type: none"> Restored degraded lands and avoided deforestation 	<ul style="list-style-type: none"> Capacity of local stakeholders needs to be developed to overcome economic and knowledge barriers Local communities have limited entrepreneurial capacity, limited access to credit and technical assistance Limited access to sustainable funding
<ul style="list-style-type: none"> Integrated territorial and sectoral approaches: tourism, agriculture, livestock and forestry, in accordance with the Caribbean Coast Development Plan. 	<ul style="list-style-type: none"> Ecotourism is a source of potentially significant private investment in support of conservation. The intervention of single-cropping companies (oil palm, beechwood, teak, acacia,

	among others) continue to advance. There is a reduction in agroforestry areas under coa, and existing plantations have low yields due to poor management as well as organizational and functional weaknesses at existing cooperatives.
• Financial sustainability of PAs	• Sufficient and predictable financial resources are available for administrative expenses in protected areas, including follow-up, monitoring, control and environmental education.
• Develop effective monitoring, leading to a reduction of vulnerabilities and conservation of biodiversity.	• In the project intervention area there are not enough information and monitoring systems that use indicators to evaluate threats, vulnerabilities and the state of conservation of biodiversity in order to facilitate decision-making.

Source: Prepared by FAO Country Office with support from the inter-institutional technical team of the Government of Nicaragua.

2) Baseline scenario and any associated baseline projects

41. The management status of the RBIM is in Regular Management (51-75% compliance) according to the Management Effectiveness Evaluation, reported by MARENA in the Action Plan for the Implementation of the Work Program on Protected Areas of the Convention on Biological Diversity of Nicaragua in 2012. This methodology will be upgraded and replaced with the more comprehensive Management Effectiveness Tracking Tool (METT) during the PPG.

Context regarding policies and laws

42. Article 60 of the Political Constitution of Nicaragua establishes the fundamental right of all Nicaraguans to live in a healthy environment and the obligation to preserve and conserve it. In recent years, Nicaragua has generated public policies that define the State's line in environmental matters, being the first country to sign the Universal Declaration of the Common Good of the Earth and Humanity.

43. The juridical framework governing the project is regulated by specific, general and sectoral environmental laws and regulations that have an impact on the environment and sustainable management of biodiversity. First, articles 60 and 102 of the Nicaraguan Constitution are the pillars that underpin the nation's fundamental principles regarding environmental rights and policies. Second, there is a General Law on the Environment and Natural Resources (Law 217), passed in 1996 and reformed in 2008 through Law 647; Protected Area Regulations (Presidential Decree 01-2007), which contains legal provisions related to PAs; a Law on Conservation and Sustainable Use of Biological Diversity (Law 807, passed in 2012), and its enabling regulations (Presidential Decree 24-19); a Law on the Conservation and Sustainable Use of Biological Diversity, passed on 16 October 2019 and published in *La Gaceta*, Official Government Record No. 203 of 24 October 2019; the Escazu Accord; and the Nagoya Protocol. [14]

44. The Autonomy Statute for the Regions of the Caribbean Coast of Nicaragua (Law 28) and its enabling regulations also exert an influence on the project's geographic area, as does the Law on Communal Property of Indigenous peoples and Ethnic Communities in the Autonomous Regions of the Caribbean Coast and the Bocay, Coco and Indio-Maíz Rivers (Law 445). [15]

45. Nicaragua also has a National Human Development Plan 2018-2021 (PNDH), which defines government priorities in the struggle against hunger and poverty. One of its pillars is the sustainable management of natural resources and climate change. The country's policy framework has recently been updated, including the Nationally Determined Contribution (NDC) presented in September of 2018 [16]. In January 2019 Nicaragua published its Forest Reference Emission Levels (NREF) for the 2005-2015 [17] period, and in February 2019 introduced its National Climate Change Mitigation and Climate Change Adaptation Policy (PNMACC), as well as creating the National Response to Climate Change System (SNRCC) [18].

46. [19] Nicaragua has prepared a National Avoided Deforestation Programme (ENDE-REDD+); a National Biodiversity Strategy; a Plan of Action for 2015-2020 [20] and a National Neutrality of Soil Degradation Strategy (NDT). [21] The Regions of the Caribbean Coast and the Special Regime Zone - Alto Wangki and Bocay, updated their Development Strategy and Plan, aligned to the (ENDE-REDD) and the Emission Reduction Strategy.

Institutional framework

47. By means of presidential decree 07-2019, published in February 2019, Nicaragua recently created a National Climate Change Response System (SNRCC). Its article 8 lists the institutions comprising it, as follows: The Ministry of the Environment and Natural Resources (MARENA) as coordinator, with 14 representatives, of which 12 are governmental, including the National Forestry Institute (INAFOR), the Nicaraguan Institute of Agricultural Technology (INTA) and the Nicaraguan Institute of Territorial Studies (INETER). There are also two institutions whose work is to coordinate at territorial level, namely the Caribbean Coast Development Secretariat (SDCC), which facilitates coordination with the Autonomous Caribbean Coast Regional Governments and the Nicaraguan Institute for Municipal Development (INIFOM), which coordinates with municipal governments (mayor's offices). Other members are the National Council of Universities (CNU) and representatives of the private sector. Article 8 establishes that the SNRCC may interact and articulate with other government institutions and entities, in particular with the National Production, Consumption and Commerce System. The creation of the SNRCC enhances MARENA's role in promoting the incorporation of biodiversity management and landscape restoration in the agriculture, cattle-ranching and forestry sector plans.

48. Nicaragua has an institutional framework for the administration of natural resources and environmental management that uses two models. One follows from direct public management of government institutions and its provincial delegations, in coordination with the municipalities, while the other pertains to the autonomous Caribbean regions, where there are five levels of government that together articulate public management and development. For administrative purposes, the autonomous regions are governed by the Autonomy Statute for the Regions on the Caribbean Coast of Nicaragua (Law 28) and its enabling regulations, as well as the "Law on Communal Property of Indigenous peoples and Ethnic Communities in the Autonomous Regions of the Caribbean Coast and the Bocay, Coco and Indio-Maíz Rivers" (Law 445), which regulates the functioning of the community and territorial governments of the indigenous and afrodescendant communities.

Baseline projects

49. The baseline analysis describes the investments made and actions related to the conservation and sustainable use of biodiversity; ENDE REDD+; and Sustainable Land Management in the project's geographic area of influence, specifically in the Indio-Maíz Biological Reserve.

50. **Conservation and sustainable use of biodiversity.** MARENA has human and financial resources earmarked for RBIM, among them technical staff from the territorial delegations and park rangers at the various control posts. It also incurs operational expenses and has made public investments in the Reserve worth an annual accumulated amount of US\$424,865 over the past two years.

51. Through the Emissions Reduction Programme Document (ERPD) and the National Avoided Deforestation Programme (ENDE-REDD+), a baseline was established with the support and in kind assistance from the FCPF/WB, through which the MARENA-INAFOR-INETER interinstitutional technical team was trained to calculate carbon emissions related to the national inventories of greenhouse gases, as well as techniques and methods by which to quantify and evaluate the deforestation and forest degradation rate. The ETF office began to operate under the ENDE REDD+, and developed the first NREF for the 2005-2015 period. It also established a process by which to create NREF capacity through the interinstitutional technical tables, for a total of US\$ 580,000.

52. **Sustainable Land Management (SLM).** In the framework of the Production, Consumption and Commerce System, MEFCCA, INTA and IPSA have human and financial resources that make up the foundation of productive experiences that favour biodiversity management and has been promoted in the RBIM buffer zone, for a total amount of US\$ 772,531.

53. **Baseline projects.** There follows a list of pertinent national projects being implemented in the FAO project's area of influence and with which we will coordinate most closely. Table 2 offers a general description of each project, its relevant outputs and link to the FAO project.

Table 2: Reference projects in support of sustainable biodiversity management in the Indio-Maíz Biological Reserve

Project	Description	Outputs pertinent to the FAO project
ENDE-REDD+ / FCPF/TF 099264 /Project P12065 7 / WB	<p>Title: Support to Readiness for the National Avoided Deforestation Programme (ENDE-REDD+)</p> <p>Objective: Elaborate a proposal in support of the implementation of a National Avoided Deforestation Strategy</p>	<p>Most pertinent outputs:</p> <ul style="list-style-type: none"> · The Forest Reference Emission Levels document (NREF) in Nicaragua introduced to the UNFCCC. · Evaluation of soil use, factors that cause changes in soil use, legislation regarding forests, policies and institutional management. · National Forest Management System designed and implemented: MRV table

	<p>Time frame: 2018-2020</p> <p>Source of financing: Forest Carbon Partnership Facility FCPF/ TF 099264 / Project P120657 / WB</p> <p>Executing agency: MARENA in coordination with INAFOR, INETER, MHCP, SDCC-GRCC.</p> <p>Amount: US\$ 5,000,000</p>	<p>...management system designed and implemented, and ... functioning.</p> <ul style="list-style-type: none"> · Birdlife biodiversity monitoring system prepared to provide information on priority non-carbon benefits in the framework of the ERPD. <p>These outputs are the baseline for implementation of activities under outputs 2.1.1, 2.1.2, 3.1.1 and 3.1.2.</p>
Emissions Reduction Programme (ERP)	<p>Full title: Emissions Reduction Programme to Fight Climate Change and Poverty on the Caribbean Coast, the Bosawás Reserve and the Indio-Maíz Biological Reserve</p> <p>Objective: To reduce emissions due to deforestation and forest degradation to 50% of current levels by the year 2040; conserve and increase the carbon stock; and contribute to the protection of the Earth vis-à-vis climate change.</p> <p>Time frame: 2020-2026 (2 yrs. preparation, 5 years intervention)</p> <p>Source of financing: Forest Carbon Partnership Facility FCPF/ Carbon Fund</p> <p>Executing Agency: MARENA in coordination with MHCP, MEFFCA, INETER, INAFOR, MAG, SDCC and the regional and territorial governments.</p>	<p>Most pertinent outputs:</p> <p>Measurement, monitoring and reporting</p> <ul style="list-style-type: none"> · Nicaragua is implementing a National Monitoring, Reporting and Verification System (SNMRV). · The carbon module will measure, monitor, report on and verify (MRV) the status and conditions of forests in Nicaragua, as well as deforestation and forest recovery. There will be reports on avoided emissions, as well as on those that occur due to changes in the national carbon stock. · Birdlife biodiversity monitoring system prepared to provide information on priority non-carbon benefits in the framework of the ERPD. <p>These outputs are the baseline for implementation of activities under outputs 3.1.1 and 3.1.2.</p>

	Amount: US\$ 57,300,000 (investment to ensure payment for results from the FCPF carbon fund).	
BioCLIMA Project	<p>Full title: Comprehensive Climate Action to Reduce Deforestation and Increase Resilience in the Bosawás Biosphere Reserve and the Río San Juan Area.</p> <p>Objective: Bio-CLIMA has for its aim to transform extensive cattle-ranching, agriculture and forest exploitation, all of which cause deforestation and degradation in the Bosawás Biosphere Reserve and the Río San Juan area, by shifting to sustainable production systems, more intensive and without deforestation, that bring together the conservation of ecosystems and the production of goods and services.</p> <p>Time frame: 2021-2028</p> <p>Source of financing: GCF (in the detailed formulation stage of the PPG with technical assistance from FAO; to be presented to CABI as FCV accredited entity).</p> <p>Executing agency: MARENA</p> <p>Amount: US\$ 110 million</p>	<p>Most pertinent outputs:</p> <ul style="list-style-type: none"> · Component 1: Conserving and producing for life. Bio-CLIMA will offer farmers financial incentives, technical assistance and facilitate access to markets for the sustainable intensification of cattle-ranching, the growing of coffee and cocoa through agroforestry systems (AFS) and the productive restoration of idle lands, frequently degraded by secondary vegetation or brushland (<i>tacotales</i>), as well as the sustainable management of natural forests. · Component 2: Good government. Pertinent public institutions charged with protecting the environment, law enforcement, forest conservation and sustainable agricultural production adapted to the climate will be endowed with additional technical staff, logistical means, vehicles, information technology, equipment and a budget for operational expenses. · Component 3: Capacity development. In order to advance from a fractured sectoral approach to soil use toward the comprehensive approach based on sustainable use and farm, landscape and ecosystem conservation which Bio-CLIMA promotes, it will be necessary to make a major effort in training and capacity creation among farmers, protagonists and technical staff employed at public services that offer outreach. They will be trained in planning and comprehensive management of soil use, the implementation and maintenance of “models”, innovations in administrative processes, legislation and regulations, the strengthening of local organisations, quality management and access to markets, among others. <p>The area of intervention for component 1 is the core zone of the Bosawás Biosphere Reserve, the Cerro Saslaya National Park and the Indio-Maíz Biological Reserve.</p> <p>Measures to create enabling conditions for ENDE REDD+, as well as to strengthen territorial management by the Rama and Kriol indigenous territorial governments.</p>

		<p>ts (ITGs) will be applied by Bio-CLIMA throughout the ERPD accounting area in all 23 indigenous territories.</p> <p>The foregoing contributes in a complementary manner to implementing activities under outputs 1.1.1, 1.1.2, 2.2.2, 3.1.1 y 3.1.2.</p>
PAIPSAN	<p>Title: Project in Support of Increasing Productivity, Food and Nutritional Security on the Caribbean Coast of Nicaragua (PAIPSAN CCN)</p> <ul style="list-style-type: none"> Source of financing: Global Agriculture and Food Security Programme - Canada Amount: U\$33.9 million Time frame: November 2015 - December 2019 Institutions involved: MEFCCA, IPSA, MAG, INTA, INPESCA and regional governments. Executing agency: Ministry of Family, Community, Cooperative and Associative Economy (MEFCCA) 	<p>Most pertinent outputs:</p> <p>The most relevant outputs are the innovative development plans (IDPs). These are investment plans intended to support agricultural production and improve food security, availability and consumption among families by capitalizing goods, materials and inputs to communities on the Caribbean Coast. Such IDPs may be agricultural, artisanal fishing and aquiculture, agroindustry, small or non-agricultural businesses.</p> <p>In the framework of the PAIPSAN project, IPSA implemented all actions related to phytosanitary and epidemiological surveillance, the implementation of good agricultural practices and safety inspections for fishery products which are needed for implementation of the PAIPSAN IDPs. Support in this area took place through intervention in three (3) subprojects or IDPs implemented in Rama and Kriol indigenous communities.</p> <p>A total of 102 productive units signed up for participation in the good agricultural practices system of protagonists in the Bluefields, Rama and Kriol territories (62 men, 40 women).</p>
NICADAPTA	<p>Title: Improve adaptation to climate change in coffee and cocoa production among small farmers in suitable agroclimate zones.</p> <p>Objective:</p>	<ul style="list-style-type: none"> Province of Rio San Juan: five investment plans in collective or community coffee and cocoa nurseries established in priority areas. In the municipality of El Castillo there are four cocoa growing organisations: ASIHERCA and COOPROCAFUC in the community of Buena Vista; COOSEMUCRIM in Boca de Sábalos; and COODEPROSA in El Castillo. These cocoa-producing families are diversifying farms and establishing new cocoa plantations, motivated

	<p>To sustainably improve living conditions for farmer families producing coffee and cocoa in four geographic zones by incorporating them to markets and reducing their vulnerability in the face of climate change.</p> <p>Time frame: 2014-2020</p> <p>Source of financing: FIDA/CABEI</p> <p>Executing agency: MEFCCA</p> <p>Amount: US\$37.05 million</p>	<p>as they are by several programmes and international prices.</p> <p>Protagonists: 424 (218 men, 206 women)</p> <p>Investment: C\$ 3,663,143.09 córdobas (1 USD = 34 córd.)</p> <p>o RACCS delegation: Four investment plans Protagonists: 600 (454 men, 146 women) Investment: 22,602,917.27 córdobas</p> <p>o Establishment of diversified agricultural systems, with gender equity and adaptation to climate change, in order to improve production and living conditions among families in eight (8) communities in Rama and Kriol territories in Bluefields, South Caribbean Coast Autonomous Region (RACCS).</p>
<p>Programme: Support to the implementation of the National Human Development Plan / Component II: Water Route</p>	<p>Title: Water Route</p> <p>Objective: Increase employment, income and hard currency generated by tourism, through the consolidation and diversification of the country's supply and demand regarding tourism, improving Nicaragua's competitive position in regional and international tourism markets.</p> <p>Time frame: 2005 - 2012</p> <p>Source: IDB</p> <p>Executing agency: MHCP / INTUR</p> <p>Amount:</p>	<p>The most relevant outputs achieved by the Water Route programme are the following:</p> <ul style="list-style-type: none"> • Improvement of the San Carlos airport and waterfront • Improvement of the facades of 28 homes in San Carlos • Construction of an airport in San Juan de Nicaragua • Construction of ten wharves (3 in San Juan de Nicaragua, 2 in El Castillo and 5 in San Carlos)

	<p>Amount:</p> <p>US\$ 21, 331,239.20</p>	<ul style="list-style-type: none"> • Construction of a waiting room at the Port Authority building • Construction of two tourist information centres (El Castillo and San Carlos) • Construction of 5 immigration checkpoints • 134 entrepreneurs were trained and received personal assistance to help improve the quality of their services • 90 tourism companies granted loans in the municipalities of San Carlos, El Castillo, San Juan de Nicaragua and San Miguelito
<p>Joint programme: Cultural Revival and Productive / Creative Development on the Nicaraguan Caribbean Coast</p>	<p>Title: Cultural Revival and Productive / Creative Development on the Nicaraguan Caribbean Coast</p> <p>Objective: Contribute to lessening gaps in equity as concerns the human, cultural, social and economic development of indigenous and afrodescendant peoples on the Caribbean Coast, by means of a cultural revival, productive development and deepening of knowledge in the exercise of rights linked to their material and intangible heritage.</p> <p>Time Frame: 2008 - 2012</p> <p>Source of financing: FODM – United Nations</p> <p>Executing Agency: Autonomous governments and regional councils of the Nicaraguan Caribbean Coast.</p>	<p>*Design and promotion of the Caribbean Coast Tourist Route, with seven circuits, including tourist attractions and 259 tourism enterprises</p> <p>*A Regional Tourism Development Plan formulated, including plans for touristic and cultural development</p> <p>*Two public spaces of historical and cultural relevance identified and revitalized</p> <p>*Tourism entrepreneurs trained on responsible cultural tourism, cultural heritage, tourism marketing and the functioning of responsible tourism and quality of services in a touristic route system</p> <p>* Capacities of local tourist guides strengthened</p> <p>* Improvement of conditions for at least six businesses run by tourism entrepreneurs</p>

	Nicaragua Tourism Institute (INTUR)	eurs
	Nicaraguan Institute of Culture (INC)	
	Amount: US\$ 430,268.84 (tourism component)	*Tour operators organized and functioning through networks

Source: Prepared by FAO Country Office with support from the interinstitutional technical team of the Government of Nicaragua

3) Proposed alternative scenario with a brief description of expected outcomes and project components

54. The **project strategy** for conserving globally important biodiversity and enhancing ecosystem service in the RBIM is based on an integrated landscape management approach that takes in account the surrounding conservation, buffer and production systems. RBIM, as the core area of the RSJ Biosphere Reserve, is particularly well suited in this regard because the landscape approach is akin to the biosphere reserve concept, with defined core areas(s), buffer zone(s) and transition area(s) that fulfil three complimentary functions: conservation of genetic, species, ecosystem and landscape diversity; sustainable economic and human development; and a logistic support function that embraces demonstration projects, environmental education, training, research and monitoring.^[21] While the project will focus on the core area (RBIM) of the RSJ Biosphere Reserve, it will collaborate closely with other initiatives within its *area of influence*, notably (i) the ER-P that includes the Caribbean catchments of the Biosphere Reserve within its programme, (ii) the GCF BioClima project, and (iii) the GEF-funded FOLUR project that will seek to reduce emissions from food production systems in the Indio-Maiz buffer zone (**Figures 3 and 4**).

55. In order to address the aforementioned threats of forest degradation, subsistence-level livelihoods and climate change to RBIM's biodiversity and the underlying institutional (including finance), awareness, capacity, ownership and information barriers to the protection of species and functioning of ecosystems that provide goods and services, the project will address the underlying root causes of biodiversity loss, degradation and pollution in an integrated, holistic and multi-sectoral manner that brings together the relevant stakeholders at a landscape scale. Thus, RBIM will be planned and managed within the context of its surrounding buffer zone and natural reserves, rather than in isolation of them. The landscape approach also provides an opportunity to address more complex scenarios where, for example, indigenous and Afro-descendant communities physically reside inside PAs. Such an approach is referred to as integrated landscape management (ILM), whereby production systems and natural resources are sustainably managed in an area large enough to provide vital ecosystem services and small enough to be managed by the people using the land. The project's theory of change (TOC) is diagrammatically elaborated in Annex XX and accompanied by a legend (Table) for the assumptions indicated alongside the pathways in the diagram.

Project objective, components, outcomes, outputs and activities

56. The project objective is to conserve globally important biodiversity and enhance ecosystem services in the Indio-Maíz Biological Reserve (RBIM) in partnership with indigenous peoples and local communities.

Component 1: Strengthening the enabling environment to improve the governance and management of the Indio Maiz Biological Reserve (RBIM).

Outcome 1.1: Legal, regulatory and institutional instruments and mechanisms established; and supported by national, regional, municipal and territorial authorities, in association with local communities, to provide integrated landscape planning, management and governance within a mosaic of conservation and production areas inside the RBIM.

57. Under component 1, legal, political and institutional provisions and mechanisms for planning and integrated management of landscapes for conservation and sustainable production purposes will be strengthened or established. Project outputs include (i) the development and adoption of a 5-year Participatory Management Plan and Action Plan (PMP) for RBIM jointly by MARENA and territorial authorities in consultation with local communities. By project end, it is expected that the PMP will be under implementation by partners in accordance with its Annual Action Plan (which will be monitored). The PMP should include

- governance provisions for joint management and subsequent upscaling to other protected area/ production landscapes;
- business plan aligned with sustainable financing framework of RBIM;
- M&E plan to track the status of (i) biodiversity and (ii) ecosystem goods and services benefiting local communities, based on framework developed for RBIM (in coordination with Output 4.1).

58. In addition, under this component, the project will ensure that provisions to apply a landscape approach to RBIM and surrounding production systems are incorporated within relevant land use legislation and policies, notably in the agriculture, livestock, tourism and forestry sectors, in coordination with the GEF FOLUR project in Nicaragua (GEFID 10559). Finally a Landscape Forum and associated Working Group for RBIM, which includes regional, municipal territorial government, CSOs, communities and private sector representatives, will be established to respectively inform and develop the RBIM Management Plan and to support delivery of its Action Plan.

Component 2 Strengthening capacity of local and indigenous communities in landscape management to conserve biodiversity.

Outcome 2.1 Capacities of Territorial governments and local communities strengthened to manage landscapes in a holistic, integrated manner: safeguarding biodiversity within protected areas and managing land under production sustainably.

59. During the PPG process, the project will carry out a capacity needs assessment which will be the basis to design a Modular Capacity Building Programme on Integrated Landscape Management, biodiversity conservation, and sustainable production, designed and delivered across relevant sectors operating within RBIM. Component 2 includes the institutional strengthening of MARENA, MEFCCA, INTUR, GRACCS, Mayoralties and local stakeholders. In addition, project resources will be used to strengthen territorial and central government extension services to support the delivery of practices and activities established in the agreed PMP for RBIM (Output 1.1.1)

Component 3: Participatory management of the Indio-Maíz Biological Reserve (RBIM)

Outcome 3.1: Agricultural pressures are reduced and resilience increased, leading to restoration and improved conservation of natural resources and ecosystem functions.

60. Component 3 will demonstrate best practices in participatory landscape management planning, ensuring that RBIM's biodiversity is safeguarded and, where necessary, restored using novel co-management mechanisms while addressing local livelihoods in a sustainable manner. Component 3 will focus on implementing the Participatory Management Plan (Output 1.1.1) to address the drivers of degradation, based on: Forest restoration activities, Agroforestry activities (including forest concessions), and improved agropecuary activities. In particular, the project will seek to reach agreements between poor farmers located within RBIM and Indigenous Territories in the context of Law 445 (<http://extwprlegs1.fao.org/docs/pdf/nic67197.pdf>).

61. In addition, the proposed project will target project beneficiaries to improve their livelihood opportunities arising from implementation of the PMP, including sustainable production / organic labeling of wood and NWFP, Agroecology, added value and premium prices for certified products; plantations for medicinal and aromatic plants; Ecotourism, with local guides, identification and development of community-based tourism products that reflect local cultures; strengthening of local companies to promote, develop and manage tourism based on responsible tourism principles. Finally, the project will support capacity building activities for local communities (targeting 50% women and youth) to support the implementation of improved livelihood activities, including (i) managing enterprises effectively, (ii) acquiring leadership skills, (iii) entrepreneurial capacities, (iv) financing and investing, among others.

Component 4: Knowledge management, monitoring and evaluation.

Outcome 4.1: Increased effectiveness of landscape management through improved digital access and management of information and knowledge, including the state of biodiversity and its ecosystem, and benefits to communities and civil society.

62. Finally, component 4 will support results based management of the project as well as knowledge management and awareness raising activities and project monitoring and evaluation. A web-based Landscape Information and Knowledge Management System (LIKMS) will be designed, made operational and accessible for monitoring: (i) biodiversity and (ii) ecosystem goods and services that benefit indigenous and afro-descendant and local non-indigenous communities; and for information purposes, including access to training modules and outreach materials.

63. Project implementation and informed decision-making will be supported by operationalizing the monitoring and evaluation system, including the incorporation of a gender perspective, social inclusion (for example, youth, indigenous peoples, Afro-descendants and local communities) and adhering to social and environmental safeguards. Finally, project results and lessons learned will be shared among stakeholders and more broadly with the National Protected Area System (SINAP) as well as with neighboring countries participating in the Mesoamerican Biological Corridor

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

64. The project is aligned with the GEF-7 focal area on biodiversity, specifically Objective 1 Mainstream biodiversity across sectors as well as landscapes and seascapes and Objective 2 Address direct drivers to protect habitats and species.

65. Regarding biodiversity mainstreaming, the project is aligned with **BD-1-1: Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors**. In order to advance biodiversity mainstreaming, the project will support spatial and land use planning to improve management and governance within a mosaic of conservation and production areas inside the RBIM (Component 1). In addition, the project will coordinate efforts with the GEF-funded FOLUR project (GEFID 10559) in Nicaragua and other initiatives to apply a landscape approach to the RBIM and surrounding production systems. Finally, the proposed project will work with local communities and indigenous peoples to improve their production practices to be more biodiversity friendly within the RBIM (Components 2 and 3). The project is also aligned with **BD-2-7 2: Address direct drivers to protect habitats and species and improve financial sustainability, effective management and ecosystem coverage of the global protected area estate**. The project will tackle direct causes of degradation and deforestation and thus protect habitats and species. In particular, the project will improve RBIM management by strengthening its governance (Component 1) and strengthening individual and institutional capacity to administer the target protected area (Component 2). Under the PMP in Component 1, the project will make efforts to ensure RBIM has available sufficient and predictable financial resources to support administrative expenses.

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

Component 1: Strengthening the enabling environment to improve the governance and management of the Indio Maiz Biological Reserve (RBIM).

66. Baseline and co-financing: The baseline is the budget available from MARENA, INTUR, MEFCCA, GRACCS and the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua, which together total US \$ 788,215. Co-financing is the contribution in public and in-kind investments available from MARENA, GRACCS and the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua. When added to this is the CABEL donation and loan and the Green Climate Fund (GCF), which are intended to formulate land use / management plans and develop restoration / conservation agreements with producers in the target landscape, the total expected contributions from all project partners of US\$ 5,517,505.

67. GEF support and financing: The GEF project will provide support to promote an integrated landscape strategy and action plan through a Regional Landscape Forum and a Working Group for landscape management in the Rio San Juan Biosphere Reserve. The GEF grant for this component is of US\$ 788,215.

Component 2: Strengthening capacity of local and indigenous communities in landscape management to conserve biodiversity.

68. Co-financing baseline: The baseline is the total contribution in kind from MARENA, the Autonomous Regional Government of the South Caribbean Coast, the municipal governments, MEFCCA, INTUR and other institutions or organizations that contribute to building local capacity and support extension services in the RBIM. Co-financing is the contribution made as a donation and a loan by the Central American Bank for Economic Integration (CABEL) and the GCF for environmental education in schools and communities, for a total of the expected contributions of all the partner projects of US\$ 3,400,000.

69. Support and financing from GEF: The GEF project will help develop and implement a capacity building program on biodiversity conservation, sustainable production, and integrated landscape management. In addition, it will work with MARENA and local governments to strengthen extension services in order to support the delivery of the activities defined in the PMP. The GEF grant for this component is of US\$ 500,000.

Component 3: Planning and participatory management of the Indio-Maíz Biological Reserve (RBIM)

70. Baseline and co-financing: The baseline is the budget available at MARENA, INTUR, MEFCCA, GRACCS and the Bluefields, El Castillo and San Juan de Nicaragua municipal governments, which together total US\$ 424,865. This includes contributions in staff, operational costs and contributions made to other projects implemented in the FAO project geographic area of influence. Examples of this are the PAISAN and NICADAPTA projects which will invest on activities to improve agriculture productivity (including cocoa in agroforestry settings), as well as food and nutritional security, as can be seen in Table 2,

above. Co-financing is the contribution in public investments and in kind available at MARENA, GRACCS, and the Bluefields, El Castillo and San Juan de Nicaragua municipal governments. When to this is added the grant and loan from CABEL and the Green Climate Fund (GCF), which are intended for the establishment of sustainable community companies, the total contributions expected from all project partners is US\$ 9,100,000.

71. GEF support and financing: the GEF Project will offer support to implement the RBIM participatory management plan, to strengthen productivity and to improve livelihoods of forest-dependent communities located within the reserve. The project will also support capacity strengthening and complement and expand the coverage of sustainable community companies as a contribution to the development of financing mechanisms for RBIM management. The GEF donation for this component is of US\$ 1,300,000.

Component 4: Knowledge management, monitoring and evaluation.

72. Baseline and co-financing: The baseline is the budget available at MARENA, MEFCCA and INTUR, for a total amount of US\$ 60,000.00. This includes staff at their monitoring and communications units and communications budgets. Co-financing is the in kind contribution made by these institutions, to be confirmed in the PPG, and to which we may add the CABEL and GCF grant and loan in support of biodiversity monitoring, knowledge management and communications activities in support of the implementation of a strategy of communication, for a total in expected contributions from all project partners of US\$ 1,733,333.

73. GEF support and financing: The GEF Project will provide support for formulating and implementing a biodiversity monitoring system, as well as for undertaking research upon design and establishment of a Biological Station in the Indio-Maíz Biological Reserve and carrying out a knowledge management and communications-for-development programme, to include the systematisation of experiences and lessons learnt in sustainable biodiversity management. The project provide support to implement a rapid assessment of ecosystem goods and services at startup and an integrated communication strategy for the Landscape Forum that supports public-private sector dialogue at the regional and local levels for landscape management in the RBIM. The GEF donation for this component is of US\$ 247,619.

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

74. There follow key expected project outcomes that are global environmental benefits.

- Biodiversity habitats improved by conserving 316,720.62 ha in RBIM (Core Indicator 1).
 - o This area includes supporting the restoration of approximately 140,000 ha affected by natural disasters(eg. assisted regeneration) and approximately 20,000 hectares degraded by natural disasters
- A reduction by 3,300,000 metric tons of CO₂-e (greenhouse gas emissions avoided and removed over five years)
- Direct beneficiaries: at least 5,000 persons (40% women)

75. There is evidence that the project will contribute directly to the Sustainable Development Goals (SDGs), specifically objectives SDG-15 (life in terrestrial ecosystems: sustainable forest management; the fight against desertification; halting and reverting land degradation and putting a halt to the loss of biodiversity); SDG-13 (climate action: adopt urgent measures to fight climate change and its effects); and SDG-5 (gender equality: achieving gender equality and empowering women and girls).

7) Innovation, sustainability and potential for scaling up

76. **Innovation.** The project includes several innovative aspects which, in turn, contribute to its sustainability and potential for scaling. The first innovative process is the integration of biodiversity conservation into planning processes led by local stakeholders and indigenous peoples in Indigenous Territories. Sustainable use of biodiversity within the RBIM will support improved livelihoods and healthier diets. Second, the project is innovative as it will strengthen the enabling environment and governance to deal with the advance of the agricultural frontier into the protected area. Efforts in the past to evict trespassers resulted in serious incidents and deaths. The project will empower local communities and support negotiation processes (coupled with strengthened monitoring of the PA). Third, the project will strengthen linkages with sustainable value chains (in collaboration with the Nicaragua FOLUR project). Finally, the project will evaluate during the preparation phase the possibility to use tools like forest concessions (like in the case of Guatemala) in the context of the Voluntary Guidelines on Making forest concessions in the tropics work to achieve the 2030 Agenda.

77. **Sustainability.** The project is designed to complement and strengthen ongoing public policies and programs (ER-P, RAIPSAN, NICADAPTA) that are investing in sustainable forestry and agroforestry, including working with the private sector. The project includes considerations that promote the continuous achievement of its objectives and outcomes, long after direct implementation concludes.

78. **Environmental sustainability:** The project's environmental sustainability will be achieved by implementing protection activities in the RBIM. It will work in collaboration with the GEF-funded Nicaragua FOLUR project to protect remaining rainforests in the buffer zone landscapes and reduce pressures to the RBIM..

79. **Social sustainability:** Social sustainability will be reached through processes of inclusion and equity, through the direct participation of the various stakeholders, such as the Rama and Kriol ITGs, GRACCS, the Bluefields, El Castillo and San Juan de Nicaragua municipal governments, governmental institutions and the private sector.

80. **Institutional sustainability:** The foundation institutional sustainability rests on strengthening staff capacity among all stakeholders, in order to improve the sustainable management of biodiversity in the RBIM.

81. **Financial sustainability:** Financial sustainability will be reached by means of a strategy that ensures that the RBIM itself is financially sustainable. This involves an increase in public and private spending, leveraged by participating actors.

82. **Potential for scaling up.** Good practices and lessons generated from the strengthening of sustainable management of biodiversity in the project intervention area will facilitate their replication in other PAs in Nicaragua. Likewise, the intersectoral work process in agriculture/livestock, forestry and tourism intended to integrate their conservation and biodiversity use agendas will also allow for replicating the mechanisms and instruments used in other parts of the country where there is an interest in conservation. The proposed project will use baseline programmes within MARENA (i.e. ERP, Bio-CLIMA) and MEFCCA (i.e. NICADAPTA, PAIPSAN) to upscale best practices, methods and tools tested in RBIM across the Caribbean Coast of Nicaragua. The work to develop sustainable community enterprises, based on initiatives with indigenous peoples that live in the core zone of a PA is an experience that can be replicated in the core zone of the Bosawás Biosphere Reserve. Finally, the land restoration in the RBIM buffer zone through silvopastoral systems and multifunctional forest plantations is a historic opportunity to project its results to the entire agricultural frontier on the Caribbean Coast of Nicaragua, which contains 70% of the country's forestland and are part of the carbon accounting area of the ERPD-FCPF.

83. The proposed project will use baseline programmes within MARENA (i.e. ERP, Bio-CLIMA) and MEFCCA (i.e. NICADAPTA, PAIPSAN) to upscale best practices, methods and tools tested in RBIM across the Caribbean Coast of Nicaragua.

[1] <https://www.inide.gob.ni/docs/Anuarios/Anuario2017.pdf>

[2] https://redd.unfccc.int/files/nref_nacional_vf_170119.pdf

[3] https://www.ibat-alliance.org/country_profiles/NIC (accessed 16 June 2020)

[4] The Bio-CLIMA project will be considered for funding during the 27th Meeting of the GCF Board that will take place on 9-13 November 2020 (<https://www.greenclimate.fund/boardroom/meeting/b27>). The Bio-CLIMA project is Funding Proposal No. 146 (<https://www.greenclimate.fund/document/gcf-b27-02-add06>)

[5] Based on 2015 land use map published by Nicaraguan Institute of Territorial Studies (INETER).

[6] Document is available in Spanish, prepared by forestry engineer and FAO consultant Luis A. Valerio.

[7] *Causes of Deforestation and Forest Degradation in Nicaragua* http://www.marena.gob.ni/Enderedd/wp-content/uploads/2019/11/Documento-causas-de-la-deforestacio%CC%81n-26_07_2019_VF.pdf

[8] Green or unripened bananas

[9] Socio-economic study (including population, indigenous peoples, gender and economic activities, legal-political-institutional framework) in the project's area of intervention (available in Spanish). Prepared by Miguel Alemán Robleto, M.Sc. in Rural Development and Sociologist, FAO consultant. This preliminary study was undertaken in the RBIM and Inio-Maiz buffer zone for the preparation of this PIF; it will be complemented by more detailed work during the PPG.

[10] NREF document sent to the UNFCCC in January 2019: https://redd.unfccc.int/files/nref_nacional_vf_170119.pdf

[11] ERP document, 31-07-19: http://www.marena.gob.ni/Enderedd/wpcontent/uploads/2019/08/ERDP_ESPA%C3%91OL_310719_VF.pdf

[12] Note that Nicaragua has achieved some success with its public campaigns to prevent and control forest fires, and to reforest the environment.

[13] <https://www.cbd.int/doc/world/ni/ni-nbsap-powpa-es.pdf>

[14] Enabling regulations to the Law on Conservation and Sustainable Use of Biological Diversity (Law 807).

<http://legislacion.asamblea.gob.ni/normaweb.nsf/09cf45d6fc893868062572650059911e/a1e62d13d0d27ed2062584a1006fe5c0?OpenDocument>

[15] Socioeconomic study (including population, indigenous peoples, gender and economic activities, legal-political-institutional framework) in the project's area of intervention. Available in Spanish. Prepared by MSc. in rural development and sociologist, Miguel Alemán Robleto, FAO consultant.

[16] The Nationally Determined Contribution and Third Communication were published on 3 September 2018:

<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Nicaragua%20First/Contribucion%20Nacionalmente%20Determinada%20Nicaragua.pdf> y :

<https://unfccc.int/sites/default/files/resource/Tercera%20Comunicaci%C3%B3n%20Nicaragua-Julio%202018.pdf>

[17] See the NREF at the following link: https://redd.unfccc.int/files/nref_nacional_vf_170119.pdf

[18] Presidential Decree 07-2019 of 1 February 2019. Published in *La Gaceta*, Official Government Record, No. 27, on 11 February 2019.

[19] <https://www.cbd.int/doc/meetings/ecr/cbwecr-2014-09/other/cbwecr-2014-09-presentation-24-es.pdf>

[20] https://knowledge.unccd.int/sites/default/files/ldn_targets/2018-11/Nicaragua%20LDN%20TSP%20Country%20Report.pdf

[21] UNESCO, 1996. Biosphere Reserves: The Seville Strategy and the Statutory Framework of the World Network. UNESCO Man and the Biosphere Programme, Paris. 18 pp.

1b. Project Map and Coordinates

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

PROGRAMME/PROJECT MAP AND GEOGRAPHIC COORDINATES

Location of the Indio-Maíz Biological Reserve



2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

92. During the project concept formulation process broad-based consultations were held with several stakeholders, among them the Ministry of the Environment and Natural Resources (MARENA); the Ministry of Family, Community, Cooperative and Associative Economy (MEFCCA), the National Forestry Institute (INAFOR); the Nicaraguan Institute of Agricultural Technology (INTA); the Nicaragua Tourism Institute (INTUR); the Institute for Plant and Animal Health and Protection (IPSA); the Caribbean Coast Development Secretariat (SDCC); the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua; the Autonomous Regional Government of the South Caribbean Coast (RACCS); the Rama and Kriol indigenous peoples; and the BICU and URACCAN Caribbean Coast universities.

93. During the project concept formulation process interinstitutional work sessions took place from 14 January to 10 March. There were also two early dialogue workshops with the Rama and Kriol ITGs, the first of which in Bluefields on 18 February and the second on 20 February 2020 in San Carlos, province of Río San Juan. Participating were representatives of the Rama and Kriol ITGs, the Communal Creole Government in Bluefields, local communities, private enterprises, municipal governments, the Autonomous Regional Government of the South Caribbean Coast, universities and territorial representatives of central government institutions. (<https://twitter.com/FAONicaragua/status/1230949958003707904?s=20>)

94. During the project concept formulation process baseline information was gathered on the actions that have been taken over the past seven years with the Rama and Kriol indigenous peoples through MARENA, MEFCCA, IPSA, INTA, INTUR, INAFOR, GRACCS and the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua in the project's geographic area of influence, including their work plans for the coming years.

95. Starting already in this stage of the present PIF we are considering safeguard instruments, first formulated by the Emissions Reduction Programme (ER-FCPF-World Bank). These were updated by the FAO project formulation team, during the process of preparing the Bio-CLIMA Project. The idea is that these safeguards comply with World Bank as well as CABEL requirements, as described in Section G.1 of the Financing Proposal sent to the GCF. This is so because the (ER-FCPF strategy, the GEF-7 Nicaragua IMBR biodiversity sustainable management programme and Bio-CLIMA will all finance activities to achieve the implementation of Nicaragua's REDD+ and the Caribbean region's ENDE REDD+ strategies, using a programmatic approach.

96. A detailed project design stage will get underway. It is expected to include a more precise analysis and the results of consultation workshops with Rama and Kriol indigenous peoples and creole the bluefields, in coordination with the Autonomous Regional Government of the South Caribbean Coast (GRACCS) and the Caribbean Coast Development Secretariat (SDCC). This will ultimately generate a Plan of Action and serve as evidence that the project counts with prior, free and informed consent and may therefore be implemented.

97. The table below displays a list of relevant actors that will contribute to project implementation.

Table 3. Stakeholders

Stakeholder name / type / profile	Role or mandate	Involvement in the project	Consultation mechanisms during project implementation
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			Implementation
Ministry of the Environment and Natural Resources (MARENA); government institution / direct beneficiary	· Governing and regulating institution for the environment and natural resources	Coordinates the project and other entities involved in its participatory management Coordinates the Project Implementation Unit (PIU) Coordinates the Project Steering Committee (PSC)	· Coordinator of consultation processes and project implementation
Ministry of Family, Community, Cooperative and Associative Economy (MEFCCA); government institution	· Institution charged with rural development through family and community-oriented collaborative actions (cooperatives, associations)	Joint executing agency and co-financier, member of the PSC	· Start-up workshop · Formulation of project POA
Nicaragua Tourism Institute (INTUR); government institution	· Governing and regulating institution for the tourism sector	Joint executing agency and co-financier, member of the PSC	· Start-up workshop · Formulation of project POA
Municipal governments of Bluefields, El Castillo and San Juan de Nicaragua / Nicaraguan Institute for Municipal Development (INIFOM)	· Local authorities, responsible for local development processes	Joint executing agency and co-financier in their jurisdiction	· Start-up workshop · Territorial consultation workshops · Formulation of project POA · Specific sessions
Caribbean Coast Development Secretariat	· Facilitates coordination and communication with GRACCS and the Rama and Kriol TGLs	Member of the PSC	· Start-up workshop · Territorial consultation workshops · Formulation of project POA · Specific sessions
South Caribbean Autonomous Regional Government (RACCS)	· Administrates regulatory issues pertaining to the Caribbean Coast Autonomy Law (Ley 28)	Co-executing agency and joint financier in specific activities Member of the PSC Directs consultation processes in the region	· Start-up workshop · Territorial consultation workshops

	<ul style="list-style-type: none"> Regional environmental assessment system (decree 20_2017) 	Directs consultation processes in the region	<ul style="list-style-type: none"> Formulation of project POA Specific sessions
Rama and Kriol territorial governments	<ul style="list-style-type: none"> Administrates titled indigenous territories 	Consultations Co-executing agency in specific activities Member of the PSC	<ul style="list-style-type: none"> Territorial consultation processes. Formulation of project POA Specific sessions
Universities	<ul style="list-style-type: none"> Specific studies, training 	Consultations Co-executors for specific activities (biodiversity studies)	<ul style="list-style-type: none"> Start-up workshop Specific activities Specific sessions
Forestry cooperatives and companies, farmers (m/f) and indigenous peoples	<ul style="list-style-type: none"> Participate in the restoration and protection of forests and biodiversity 	Co-executors, joint financiers	<ul style="list-style-type: none"> Consultation at territorial level Collaborative Management Committees Specific sessions

Source: Prepared by the FAO country office with support from of the interinstitutional technical team of the government of Nicaragua

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

98. Based on the FMAM Plan of Action for Gender Equality, the FAO gender equality strategy and policy, the 2015-2020 Gender Plan of Action of the Biological Diversity Convention^[1], the National Climate Change Adaptation and Mitigation Policy and the Equal Rights and Opportunities Law (Law 648), the project will adopt the necessary measures to ensure participation of women in all its activities. The project will ensure that women's specific needs are satisfied and that they enjoy equal access to its activities.

99. During the project formulation process, baseline information was found on gender equity actions being implemented by MARENA, MEFCCA, INTUR, GRACCS and the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua and their work plans for the coming years.^[2]

100. In addition, we are considering gender evaluation and the plan of action formulated when preparing the financing proposal for the Bio-CLIMA project, which supports equality and greater empowerment of women in relation to the following processes: planning of soil use and forest management, support to sustainable production models through access to training, entrepreneurship and other technical services; and control and application of forest and environment legislation. In the PPG these experiences and information will serve as a baseline for conducting an analysis of the gender equity gap and a Plan of Action to be implemented through the project.

101. In the PPG, a gender analysis will take place and there will be consultation workshops with indigenous and non-indigenous peoples in order to identify the roles and expectations of women as concerns project activities. Finally, a Plan of Action will be drawn up, based on the following three priority lines of action on gender: (a) expand the participation of women in decision-making at all levels; (ii) select women as beneficiaries; and (iii) invest in capacity development among women.

[1] CDB Gender Plan of Action: <https://www.cbd.int/gender/doc/CBD-GenderPlanofAction-ES-WEB.pdf>

[2] Socioeconomic study (including population, indigenous peoples, gender and economic activities, legal-political-institutional framework) in the project's area of intervention. Available in Spanish. Prepared by MSc. in rural development and sociologist, Miguel Alemán Robleto, FAO consultant.

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

closing gender gaps in access to and control over natural resources;

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women.

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

102. During formulation of the project concept baseline, baseline information was found on gender equity actions being implemented by MARENA, MEFCCA, INTUR, GRACCS and the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua and their work plans for the coming years.

103. MEFCCA is an institution belonging to the National Production, Consumption and Commerce System (SNPCC), which works with private sector producers. As regards tourism, INTUR is already implementing consultation mechanisms with tourist companies that are participating in the formulation of the project concept. During the process of detailed preparation the project proposal made to producers and companies in the IMBR buffer zone will be consulted.

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

96. A project risk analysis is shown in Table 4, below.

Description of risk	Impact	Probability of occurrence	Mitigation actions	Responsible party
1. Availability of information available for decision making. It is required to generate inter-institutional platforms of technical knowledge and ancestral knowledge, related to the management of biodiversity and sustainable use of natural resources.	Low	100%	The project will reduce these risks by taking the following measures: Support interinstitutional coordination and collaboration, in order to strengthen knowledge on biodiversity, sustainable forest management and landscape restoration in buffer zones and interconnection corridors, working through the competent institutions and organisations involved (MARENA, ME FCCA, INTUR; SDCC; municipal governments and I NIFOM; Rama and Kriol territorial governments; the South Caribbean Regional Government; and universities (to carry out studies).	Government of Nicaragua - MARENA
2. Institutional implementation capacity: Institutions currently have limited staff and other resources needed to provide sufficient effective management in PAs, safeguard sustainability and establish and support the management of biological corridors.	Medium	100%	To reduce these risks, the following measures will be taken: Support for institutions that require engaging technical assistance (TA) so they can contribute to the management of the PA. Support to capacity development, with TA for GR ACCS, municipal governments and Rama and Kriol ITGs. Promote collaboration among owners, organisations and local enterprises, through specific contributions and by identifying profitable and conservationist activities that make for sustainable management at local level.	MARENA, with support from FAO
3. Technical: Restoration of forestland and biological connectivity requires multisectoral institutional coordination, policies sensitive to protected areas and biodiversity, and long-lasting behavioural changes among farmers and forest owners.	Medium	100%	Participatory construction, as progress is made in capacity development and group formation, of management entities and mechanisms that make significant contributions to restoration of forests, important habitats, and the achievement of sustainable management.	MARENA and technical directorates, with support from FAO, universities and other institutions involved.
4. Stakeholders: Project success will depend in large measure on the commitment	Medium	100%	Increase ownership and reduce risk, based on capacities, entities and mechanisms developed with	MARENA, coordinating activities with GRACCS, the

<p>depend in large measure on the commitment and ownership taken by stakeholders, taking into account that most of the land declared protected is private, and the challenge will be to select people among short and long-term beneficiaries who have a stake in the use and conservation of natural resources.</p>			<p>capacities, entities and mechanisms developed with members of different institutions, organizations and the Rama and Kriol indigenous peoples.</p> <p>(a) Support for the sectoral planning and coordination process for sustainable RBIM management;</p> <p>(b) mechanisms will be defined and implemented that increase the sustainability of project investments; and</p> <p>(c) participation agreements with local stakeholders will be incorporated to the design and implementation of community initiatives.</p>	<p>activities with GRACOS, the Rama and Kriol ITGs, the Communal Creole Government in Bluefields, municipal governments, organizations, entrepreneurs and producers.</p>
<p>6. Climate change. Forest restoration and conservation activities can be seriously affected by the adverse consequences of climate change. Examples are droughts and high temperatures that may cause forest fires or lead to the extinction of threatened species.</p>	<p>Medium</p>	<p>90%</p>	<p>The project is being carried out precisely to strengthen resilience by restoring forests, habitats and livelihoods, lower the emissions of GHGs and strengthen response capacities in the face of extreme events.</p> <p>Part of the activities will be to coordinate with the National Response to Climate Change System (SNRCC).</p>	<p>MARENA, in coordination with other institutions and organisations.</p>
<p>7. Natural Hazards including weather events and epidemiological risks (e.g., COVID-19) That can delay project activities</p>	<p>Medium</p>	<p>90%</p>	<p>Identification of alternatives to face-to-face meetings and consultations, raised awareness about the situation on the field among the stakeholders and identification of green recovery measures. The evolution of the COVID-19 pandemic will be closely monitored to allow enough time for mitigation plans were needed.</p> <p>Regarding COVID-19, during project preparation, a number of assessments at the field level will be carried out with local stakeholders. Given current conditions for the Nicaragua FOLUR project, we have noticed that preparation costs have increased, particularly those related to travel and face-to-face meetings. The project will make sure any meetings follow national guidance to prevent transmission and will monitor any impacts that may delay project preparation.</p> <p>The project will start implementation in 2020, when the COVID-19 is expected to be under control. Nonetheless, during the preparation phase, the project will prepare a risk mitigation plan in case the situation is still dire.</p>	<p>MARENA, in coordination with other institutions and organisations.</p>

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

(a) Institutional arrangements

105. The Ministry of the Environment and Natural Resources (MARENA) will be the executing agency and have technical responsibility for the project, under FAO supervision as FMAM agency. MARENA will preside a Project Steering Committee (PSC), which will be the project's main governing body. The PSC will approve the annual work plans and budgets, while providing strategic guidance to the Projects Management Unit (UGP) and to executing partners. The PSC will be comprised of representatives from MARENA, MEFCCA, INTUR, SDCC, GRACCS, INIFOM and the municipal governments of Bluefields, El Castillo and San Juan de Nicaragua. Members will play the role of project focal point at their respective institutions. As focal points, PSC members will: (i) provide technical supervision to activities at their institution; (ii) ensure a fluid exchange of information and knowledge between the institution and the project; (iii) facilitate coordination and establish links between project activities and their institution's work plan; and (iv) obtain co-financing for the project, in keeping with the modality agreed upon.

106. The use of FAO's operational partner implementation modality (OPIM) for part of the project must be evaluated and negotiated when designing the PPG, taking into account that MARENA is already the adequate operational partner to be identified and evaluated. The project design must define the amount to be transferred, what expected results are and which supervision mechanisms FAO Nicaragua has available (staff capacity, controls, audits to be engaged, etc.). FAO Nicaragua will ensure that all FAO regulations and requirements for OPIMs are complied with, according to that which is set forth in Section 701 of the FAO Manual.

(b) Coordination with other initiatives

107. During the project concept formulation process, the need was identified to coordinate actions with the different initiatives described in Table 2 of this document.

108. These initiatives are: i) Emissions Reduction Programme to Fight Climate Change and Poverty on the Caribbean Coast, the Bosawás Biosphere Reserve and the Indio-Maíz Biological Reserve; ii) Strengthening Resilience in Multiple Use Protected Areas for the Generation of Multiple Environmental Benefits Project (GEF 5277); (iii) Resilient Landscapes Management Project (GEF 9579) (**Figure 9**).; and iv) Integrated Climate Action to Reduce Deforestation and Strengthen Resilience in Bosawás and Río San Juan Project (BioCLIMA). This project will be introduced for approval by the Green Climate Fund (GCF) in late 2020 through the Central American Bank for Economic Integration (CABEI) as accredited agency.

MAPA DE COBERTURA GEOGRÁFICA DE PROYECTOS GEF-5, GEF-6, GEF7 y FOLUR, INCLUYENDO ARTICULACIÓN CON ERPD

Municipios involucrados en el proyecto de Fortalecimiento de la Resiliencia de Áreas Protegidas de Usos Múltiples para la Generación de Beneficios Ambientales Globales Múltiples. GEF 5 / ID GEF 5277

No.	ÁREA PROTEGIDA	DEPARTAMENTO/REGIÓN	MUNICIPIO
1	Reserva Natural Volcán Cosigüina	Chinandega	El Viejo
2	Reserva Natural Estero Padre Ramo	Chinandega	El Viejo
3	Reserva Natural Estero Real (Sitio Ramsar)	Chinandega	El Viejo, P. Morán, Villanueva, Somotillo
4	Reserva de Recursos Genéticos Ansona	Chinandega	Somotillo
5	Reserva Natural Cerro Cumaca - Cerro Alegre	Boaco / Matagalpa	Santa Lucía, San José de los Remates
6	Reserva Natural Mombachito La Vaca	Boaco	Boaco
7	Reserva Natural Cordillera Amatique	Chontales	Jugla, San Fco. De Cuapa, San Pedro de Luván
8	Reserva Natural Macizo de Peñas Blancas (Forma parte de la Reserva de Biosfera Bosawas)	Matagalpa / Jinotega	El Cuá, Rancho Grande, Tuma La Laja
9	Reserva Natural Cerro El Ambó	RACCN	Siuna
10	Parque Nacional Cerro Saslaya (Forma parte de la reserva de Reserva Natural Volcán)	RACCN	Siuna
11	Concepción (Forma parte de la Reserva de Biosfera Islada)	Rivas	Atlagracia
12	Reserva Natural Volcán Maderas	Rivas	Moyogalpa
13	Refugio de Vida Silvestre Itom de Isidoro Peña Inculca (Forma parte de la reserva de Biosfera)	Rivas	Atlagracia
TOTAL GEF 5			7
			17

Municipios involucrados en el proyecto de Proyecto Gestión de Paisajes Resilientes GEF 6 / ID GEF 9579

No.	ÁREA PROTEGIDA	DEPARTAMENTO/REGIÓN	MUNICIPIO
1	Reserva Natural Cordillera Dipilto y Jalapa / Ecosistema Pino Encino	Nueva Segovia	Dipilto, Jalapa, San Fernando, Moente
2	Parque Nacional Cañón de Somoto / Ecosistema Pino Encino	Madriz	San Lucas
3	Reserva Natural Tepesomoto - Patata / Ecosistema Pino Encino	Madriz	Somoto, San Lucas, Las Sabanas y San José de Cusmapa
4	Reserva Natural Cerro Tioy Estanzuela / Ecosistema Pino Encino	Estelí y León	Estelí, San Nicolás, El Sauce
5	Reserva de Recursos Genéticos Yuquí / Especie de Pinus Patula, Topo Tecumumani	Matagalpa	San Ramón
6	Reserva Natural Cerro Tomabú / Ecosistema Pino Encino	Estelí	Estelí
TOTAL GEF 6			5
			15

Municipios involucrados en el proyecto de Manejo sostenible de la biodiversidad en la Reserva Biológica Indio Maíz GEF7

No.	ÁREA PROTEGIDA	DEPARTAMENTO/REGIÓN	MUNICIPIO
1	Reserva Biológica Indio Maíz	RACCS	Bluefields, El Castillo, Río San Juan
TOTAL GEF 7			1
			3

Escala: 1:3,000,000 0 25 50 Km
Edición SIG: Ing. Karen Baltodano. Junio 2020

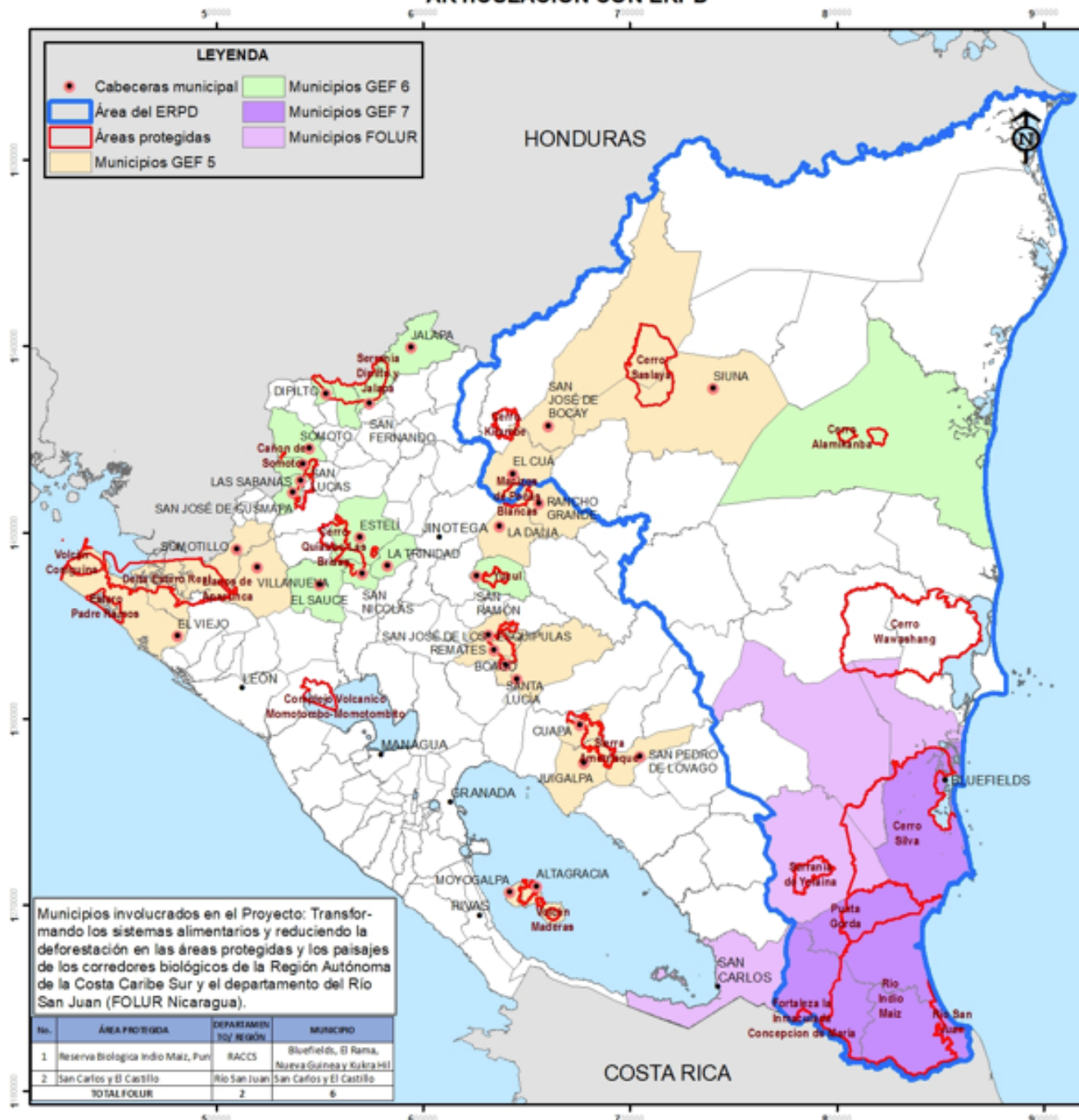


Figure 9. Spatial location of GEF projects in Nicaragua

109. MARENA is responsible for the coordination of these initiatives, given that it is the institution designated as SNRCC coordinator. Further, MARENA is the authority designated to tackle issues related to climate change, and is Nicaragua's focal point at the UNFCCC and the national counterpart institutions for GEF projects, the ERP-D-FCPF and the BioCLIMA project currently being formulated for introduction to the Green Climate Fund.

110. **World Framework for Biological Diversity after 2020.** On 6 January 2020 the Secretariat of the Biological Diversity Convention published a preliminary draft of the World Framework for Biological Diversity after 2020^[1]. Among recommendations for consideration by the Working Group it is stressed that success in the implementation of the framework will depend on learning from earlier experience, achievements and challenges, among them: i) intensify efforts to deal with the drivers of biological diversity loss; ii) ensure that implementation is participatory, inclusive, has a gender perspective, is transformative, exhaustive, catalysing, visible, knowledge-based, transparent, efficient, results-oriented, iterative and flexible; and iii) the integration of biological diversity to all sectors of society, concentrating on achieving the participation of those sectors that will be in charge of implementing measures to deal with the drivers of biological diversity loss.

111. Among action goals to be reached by 2030 are: i) Protection of places that are of particular importance for biological diversity by establishing protected areas and taking other effective area-based conservation measures; ii) contribute to the adaptation to climate change and its mitigation, as well as the reduction of exposure to disasters through solutions based on nature; iii) improve the sustainable use of wildlife species by providing benefits by 2030, including improvements in nutrition, food security and livelihoods, in order to satisfy people's needs, in particular the most vulnerable, and to reduce conflicts among humans and the flora and fauna; iv) to conserve and improve the sustainable use of biological diversity in agricultural and other man-managed ecosystems, for the purpose of supporting their productivity, sustainability and resilience; and v) promote the full and effective participation of indigenous peoples and local communities, women and children in particular, as well as youths, in decision-making related to the conservation and sustainable use of biological diversity.

[1] <https://www.cbd.int/article/2020-01-10-19-02-38>

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

112. **Alignment with national priorities.** This project contributes directly to Nicaragua's meeting its commitments under the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Droughts (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC). The project's objective and outcomes also directly support several national priorities and initiatives. These include:

- i. National Human Development Plan (2018-2021). This plan contributes to environmental policy and the protection of natural resources in the face of climate change.^[1]
- ii. Caribbean Coast and Upper Wangki River Development Strategy for the period 2020-2030. This plan reflects the vision, life aspirations and heritage of future generations, persons, families, communities, municipalities, regions, institutions and organizations. It is based on the world view of indigenous peoples but imbued with modern approaches, among which the most pertinent are sustainable development, inclusion and social justice, gender equality, environmental conservation and development with low carbon emissions. The strategy also intends to mainstream the ERPD, which in turn is designed to fight the main causes of deforestation and forest degradation. It will promote a more intensive, more equitable and more environmentally sustainable production-protection model. Further, it has the firm purpose of mobilizing the different public, private, religious, social and community actors, and by taking united actions in a context of diversity, reach higher levels of shared and solidary responsibility, confidence in its strength, greater equity, higher levels of competitiveness and healthy coexistence with fellow humans and the environment.
- iii. National Climate Change Mitigation and Adaptation Policy. Presidential Decree No. 07-2019, approved on 1 February 2019, published in *La Gaceta*, Official Government Record, No. 27 of 11 February 2019. This project contributes to Guideline 1: Agriculture / livestock development with low carbon emissions and resilient to the impacts of current climate variations, as well as future climate conditions; Guideline 5: Use and conservation of ecosystemic services to achieve economic development low in carbon emissions and adapted to climate change; and Guideline 6: Conservation, restoration and rational use of forests, as well as to promote forest plantations in suitable forestland.^[2]
- iv. National Avoided Deforestation Programme (ENDE-REDD+) 2018-2040.^[3]
- v. Emissions Reduction Programme to Fight Climate Change and Poverty on the Caribbean Coast, the Bosawás Biosphere Reserve and the Indio-Maíz Biological Reserve (ERPD).^[4]
- vi. National Tourism Strategy.^[5]
- vii. Third National Communication on Climate Change, delivered to the UNFCCC in July 2018.^[6]

viii. Nationally Determined Contribution (NDC), delivered to the UNFCCC in August 2018.^[7]

ix. National Biodiversity Strategy and its Plan of Action in Nicaragua 2015-2020, delivered to the CBD in 2016.^[8]

x. National Land Degradation Neutrality (LDN) strategy to 2030, delivered to the UNCCD in 2018.^[9]

xi. Nicaraguan goals to reach Land Degradation Neutrality (LDN) by 2030, presented to the UNCCD in 2018.^[10]

[1] <https://www.el19digital.com/app/webroot/tinymce/source/2018/00-Enero/Del22al28Enero/Viernes26Enero/EJES%20DEL%20PROGRAMA%20NACIONAL%20DE%20DESARROLLO%20HUMANO.pdf>.

[2] <http://legislacion.asamblea.gob.ni/Normaweb.nsf/164aa15ba012e567062568a2005b564b/2aa845f404d355c6062583a0005a2819?OpenDocument>

[3] <http://www.marena.gob.ni/Enderedd/wp-content/uploads/Fases/13.%20Estrategia%20Nacional%20ENDE.pdf>

[4] https://www.forestcarbonpartnership.org/system/files/documents/ERDP_ESPA%C3%91OL_310719_VF.pdf

[5] <https://www.intur.gob.ni/leyes-de-turismo/>

[6] <https://unfccc.int/sites/default/files/resource/Tercera%20Comunicaci%C3%B3n%20Nicaragua-Julio%202018.pdf>

[7] <https://www4.unfccc.int/sites/NDCStaging/Pages/Search.aspx?k=Nicaragua>

[8] <https://www.cbd.int/doc/meetings/ecr/cbwecr-2014-09/other/cbwecr-2014-09-presentation-24-es.pdf>

[9] https://knowledge.unccd.int/sites/default/files/ldn_targets/2018-11/Nicaragua%20LDN%20TSP%20Country%20Report.pdf

[10] https://knowledge.unccd.int/sites/default/files/ldn_targets/2018-11/Nicaragua%20LDN%20Country%20Commitments.pdf

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

113. Knowledge management is an ongoing process that will take place during the full project cycle. It takes for its point of departure previous experiences and based on these develops activities that are enriched when practice is analysed for improvement purposes. Knowledge management will take place through participatory processes by means of which male and female members of institutions, organizations and the population, both indigenous and non-indigenous, share their knowledge and the lessons that have been generated over time through the implementation of different project activities. Thus the project will retrieve, visibilise and incorporate data, information, knowledge (scientific and traditional or ancestral) and tacit, implicit and explicit, as well as any new lessons learnt. To that end it will create spaces and moments for participation so people can share/socialise knowledge and develop generalisations. Knowledge management will be a process based on the following research pillars: (a) relationship between humans and biodiversity; (b) PA management; (c) experiences useful to mainstream biodiversity in the agriculture/livestock, forestry and tourism sectors. Good practices will be identified (successful experiences, promising practices, others) in the context of an exchange and learning process.

114. Knowledge management will be based on the reality of local and institutional knowledge (scientific and traditional). It will identify, gather and organise existing knowledge in order to facilitate learning. The latter is fundamental in the process and must be taken into account in the various activities; however, it will not begin with a search for a problem or identification of a knowledge gap, but rather is to be based on lived experience. Said experience is to be socialized, externalised and used to reflect upon what has been lived and done, and thus generate lessons or knowledge. In this learning process young adults will be charged with forging an intercultural communications strategy that helps to enhance successes or positive outcomes, while identifying practices that instead limited the achievement of expected outcomes. This will generate lessons on what should or not be done to adequately or optimally reach objectives. The knowledge gathered will be explained, adapted and organized into construct generalizations, so it can be incorporated to the project's knowledge warehouse and then be shared with the various actors or stakeholders (dissemination or communication).

115. During the detailed project design stage a Plan of Action for knowledge management will be drawn up.

9. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF

CEO Endorsement/Approval MTR

TE

Medium/Moderate

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

Identification of environmental and social risks – verification and detection

The project's environmental and social risks are moderate. The intervention will take place in a protected area, the Indio-Maíz Biological Reserve, which consists mainly of forests that are home to indigenous populations whose livelihoods are based on subsistence agriculture in degraded areas located in the buffer zone. It is thought that positive impacts will outweigh negative ones at both environmental and social levels, since the project will place much emphasis on the protection of natural resources precisely in the area upon which the indigenous communities and local populations depend. The project will reduce deforestation and the loss of biodiversity, while strengthening ecosystemic services provided to promote access to options for more resilient livelihoods, reduce anthropogenic pressure and further the sustainable management of biodiversity in the project area.

During formulation of the PPG, MARENA will also prepare an Environmental and Social Management Framework (ESMF), with the support and approval of FAO before project evaluation takes place. The dissemination of appropriate consultations will be organised in accordance with the requirements of environmental and social safeguards policies, also before project evaluation.

When preparing the ESMF it will be taken into account that in the project intervention area the government of Nicaragua has undertaken a process of prior, free and informed consent during the readiness process for the ENDE REDD+ national strategy, and that there is in place an Emissions Reduction Programme to Fight Climate Change and Poverty on the Caribbean Coast, the Bosawás Biosphere Reserve and the Indio-Maíz Biological Reserve. The ERPD was delivered to the FCPF Carbon Fund / World Bank in July of 2019).

The following table summarizes these risks and mitigation measures:

Safeguard Triggered	Risk Identified	Answer	Risk Classification	Mitigation Measures
2. Biodiversity, Ecosystems and Natural Habitats.	2.1. Would this project be implemented within a legally designated protected area or its buffer zone?	Yes	High reclassified to Moderate	An environmental and social impact assessment will be developed during Project Preparation Phase will be developed to further identify the negative risks and mitigation measures.
9. Indigenous Peoples and Cultural Heritage	9.2. Are there indigenous peoples living in the project area where activities will take place?	Yes	Moderate	The project will seek Free, Prior and Informed Consent (FPIC) before implementing activities in the areas where indigenous peoples live.

Supporting Documents

Upload available ESS supporting documents.

Title **Submitted**

FAO ES Checklist- Nicaragua Indio Maiz
RiskCertification_IndioMaíz

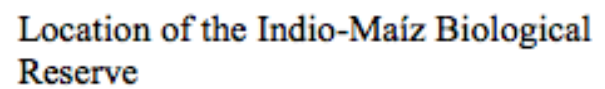
Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Javier Gutierrez Ramirez	Vice Minister	Ministry of Environment and Natural Resources	8/21/2020

Please provide geo-referenced information and map where the project intervention takes place

PROGRAMME/PROJECT MAP AND GEOGRAPHIC COORDINATES



Location of the Indio-Maíz Biological Reserve

