



Sustainable Management of Natural Resources towards Rehabilitation and Preservation of the Key Biodiversity Area along Bataan Province to Manila Bay

Part I: Project Information

GEF ID

10704

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Sustainable Management of Natural Resources towards Rehabilitation and Preservation of the Key Biodiversity Area along Bataan Province to Manila Bay

Countries

Philippines

Agency(ies)

FAO

Other Executing Partner(s)

Department of Environment and Natural Resources-Biodiversity Management Bureau (DENR-BMB)

Department of Agriculture-Bureau of Soils and Water Management (DA-BSWM)

Executing Partner Type

Government

GEF Focal Area

Multi Focal Area

Taxonomy

Focal Areas, Land Degradation, Sustainable Land Management, Community-Based Natural Resource Management, Sustainable Agriculture, Restoration and Rehabilitation of Degraded Lands, Ecosystem Approach, Sustainable Livelihoods, Income Generating Activities, Biodiversity, Biomes, Wetlands, Coral Reefs, Rivers, Tropical Rain Forests, Mangroves, Mainstreaming, Agriculture and agrobiodiversity, Fisheries, Forestry - Including HCVF and REDD+, Tourism, Protected Areas and Landscapes, Coastal and Marine Protected Areas, Productive Landscapes, Terrestrial Protected Areas, Community Based Natural Resource Mngt, Species, Threatened Species, Plant Genetic Resources, Climate Change, Climate Change Adaptation, Livelihoods, Community-based adaptation, Climate resilience, Influencing models, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Stakeholders, Civil Society, Non-Governmental Organization, Academia, Community Based Organization, Type of Engagement, Information Dissemination, Participation, Consultation, Partnership, Local Communities, Communications, Awareness Raising, Public Campaigns, Beneficiaries, Indigenous Peoples, Private Sector, Individuals/Entrepreneurs, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Gender results areas, Participation and leadership, Access to benefits and services, Access and control over natural resources, Capacity Development, Knowledge Generation and Exchange, Capacity, Knowledge and Research, Innovation, Knowledge Generation, Training, Knowledge Exchange, Learning, Adaptive management, Theory of change

Sector**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Submission Date

11/26/2021

Expected Implementation Start

8/1/2022

Expected Completion Date

7/31/2026

Duration

48In Months

Agency Fee(\$)

259,450.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-1-1	Mainstream Biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors	GET	2,642,952.00	15,000,000.00
LD-1-1	Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	88,098.00	2,079,431.29
Total Project Cost(\$)			2,731,050.00	17,079,431.29

B. Project description summary

Project Objective

To mainstream biodiversity and sustainable land management in and around key biodiversity areas along Bataan province to Manila Bay while improving secure and diversified local livelihoods.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
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Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 1: Land use planning, supporting biodiversity and sustainable land management (SLM) enhanced at all levels	Technical Assistance	Outcome 1.1: Cross-sectoral capacities strengthened to develop and implement harmonized land use plans, investment plans, and resource management frameworks in Bataan Province , in support of the Manila Bay Sustainable Development Master Plan (MBSDMP)	Output 1.1.1: A multi-sectoral/multi-stakeholder platform with capacity on ecosystems management in Bataan Province operationalized to facilitate learning and sharing and harmonization of plans amongst LGUs , provincial and national stakeholders Output 1.1.2: Department of Environment and Natural Resources (DENR) and relevant stakeholders are capacitated to catalyze GEB mainstreaming, to support implementation of the Operational Plan of the Manila Bay Coastal Strategy (OPMBCS) and the MBSDMP Output 1.1.3: Key provincial institutions and Local Government Units (LGUs) in Bataan Province are capacitated	GET	913,020.00	4,200,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 2: Implementation of natural resource management and sustainable livelihoods to deliver global environmental benefits in and around key biodiversity areas (KBAs) at sub-provincial level in Bataan Province	Investment	Outcome 2.1: Local communities in and around key biodiversity areas are capacitated and incentivized to scale up livelihoods towards biodiversity-friendly enterprises while improving land and resource management (at sub-provincial level in Bataan Province)	Output 2.1.1: Capacity building of extension agents, community institutions, farmers, fisherfolk, other resources user groups to implement sustainable natural resource management in and around KBAs at sub-provincial levels in line with the existing and updated plans. Output 2.1.2: Communities practice sustainable natural resource management (agriculture, forestry, fisheries, agroforestry) with government and other partners, consistent with the land use plans under Outcome 1. Output 2.1.3: Local communities in the target areas, especially women and indigenous peoples, foster private sector partnerships and	GET	1,269,670.00	7,925,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
Component 3: Monitoring and evaluation and knowledge management	Technical Assistance	<p>Outcome 3.1:</p> <p>Knowledge exchange for scale-up and replication of interventions that mainstream biodiversity conservation and sustainable land management</p>	<p>Output 3.1.1:</p> <p>Knowledge management and communication plan developed and implemented that incorporates project lessons and related innovative practices for scale-up in Philippines.</p> <p>Output 3.1.2:</p> <p>Recommendations on biodiversity mainstreaming and integrated landscape management for effective implementation of the MBSDMP and PDPFP and local development and investment plans prepared and submitted to the relevant agencies.</p> <p>Output 3.1.3:</p> <p>Effective monitoring and evaluation framework, incorporating gender mainstreaming and safeguards, developed and implemented to strengthen project effectiveness.</p>	GET	418,310.00	4,142,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
				Sub Total (\$)	2,601,000.00	16,267,000.00

Project Management Cost (PMC)

	GET		130,050.00		812,431.29	
Sub Total(\$)			130,050.00		812,431.29	
Total Project Cost(\$)			2,731,050.00		17,079,431.29	

Please provide justification

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Department of Environment and Natural Resources (DENR)	Public Investment	Investment mobilized	11,261,849.83
Recipient Country Government	Department of Environment and Natural Resources (DENR)	In-kind	Recurrent expenditures	3,011,515.88
Recipient Country Government	Department of Agriculture-Bureau of Soils and Water Management (DA-BSWM)	In-kind	Recurrent expenditures	500,000.00
Recipient Country Government	Provincial Government of Bataan	Public Investment	Investment mobilized	295,980.77
Recipient Country Government	Provincial Government of Bataan	In-kind	Recurrent expenditures	190,013.96
Recipient Country Government	Philippine Council for Industry, Energy and Emerging Technology Research and Development, Department of Science and Technology (PCIEERD-DOST)	In-kind	Recurrent expenditures	1,514,070.85
GEF Agency	FAO Forestry Division	In-kind	Recurrent expenditures	100,000.00
GEF Agency	FAO Philippines	In-kind	Recurrent expenditures	206,000.00
Total Co-Financing(\$)				17,079,431.29

Describe how any "Investment Mobilized" was identified

(1) ?Investment mobilized? was identified in discussion with partners during the project preparation phase in October-November 2021. Total investment mobilized is USD 11,557,830.60. This amount includes USD 11,261,849.83 in public investment from DENR?s Biodiversity Management Bureau, DENR Regional Office-III and the Manila Bay Coordinating Office (MBCO) during the period 2022-2025. It also includes USD 295,980.77 in co-financing from the Provincial Government of Bataan in the form of public

investments that contribute to the project goals, such as for example investments in Integrated Upland Conservation Farms and Mangrove Rehabilitation. (2) "Recurrent expenditures" of the government are considered to be the "normal" annual expenses such as salaries, operational costs, etc., that are budgeted and utilized for an extended period through its national budgeting process. Total recurrent expenditures co-financing is USD 5521600.69. The DENR in-kind contribution totals USD 3,011,515.88 and includes co-financing in staff and Project Management Costs related to DENR's involvement in the project, including provision of office space. The BSWM co-financing includes (i) USD 350,000 in-kind co-financing from the Manila Bay Clean-Up, Rehabilitation and Restoration Project (reduction of nutrient load through the establishment of Integrated Upland Conservation Guided Farm via soil and water conservation technologies in techno-demo site); and (ii) USD 150,000 in-kind co-financing in staff complement and Project Management Costs related to BWSM involvement in the project. The PCIEERD-DOST in-kind co-financing is earmarked from the agency's funded projects Grants-in-Aid: 2022-2024 under the S&T Water Environment program. The in-kind/recurrent expenditures co-financing from the Provincial Government of Bataan totals USD 190,013.96. FAO in-kind co-financing includes USD 100,000 from the "Enhancing community resilience to climate change in mountain watersheds" project and USD 206,000 from the "Support to enhancing farm tourism in the Philippines for inclusive rural development" project.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Philippines	Biodiversity	BD STAR Allocation	2,642,952	251,081	2,894,033.00
FAO	GET	Philippines	Land Degradation	LD STAR Allocation	88,098	8,369	96,467.00
Total Grant Resources(\$)					2,731,050.00	259,450.00	2,990,500.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount (\$)

100,000

PPG Agency Fee (\$)

9,500

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	GET	Philippines	Biodiversity	BD STAR Allocation	96,774	9,194	105,968.00
FAO	GET	Philippines	Land Degradation	LD STAR Allocation	3,226	306	3,532.00
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)
19,211.00	20,790.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
19,211.00	20,790.40	0.00	0.00

Name of the Protected Area	WDP A ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
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Name of the Protected Area	WDA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Bataan National Park	1256897215	SelectNational Park	19,211.00	20,004.00			67.00		
Akula National Park Roosevelt Protected Landscape	1256897214	SelectProtected area with sustainable use of natural resources		786.40			70.00		

Indicator 2 Marine 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)
591.70	0.00	0.00	0.00

Indicator 2.1 Marine Protected Areas Newly created

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

Name of the Protected Area	WDP A ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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Indicator 2.2 Marine Protected Areas Under improved management effectiveness

Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
591.70	0.00	0.00	0.00

Name of the Protected Area	WDP A ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Abucay Fish Sanctuary	125689 555716288	SelectOther	500.00	0.00					<input type="checkbox"/>
Akula National Park Balanga Wetland and Nature Park (BWN P)	125689 55571650	SelectOther	34.20	0.00					<input type="checkbox"/>

Name of the Protected Area	WDP A ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Limay Fish Sanctuary	125689 555716355	SelectOthers	7.50	0.00					
Akula National Park Orion Kent Fish Sanctuary	125689 555716389	SelectOthers	25.00	0.00					
Akula National Park PNO C Fishery Reserve Area	125689 n/a	SelectOthers	25.00	0.00					

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
176408.00	117.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	100.00		

Indicator 3.2 Area of Forest and Forest Land restored

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

Indicator 3.3 Area of natural grass and shrublands restored

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

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
176,408.00	17.00		

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
46218.00	69176.60	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)
46,218.00	69,176.60		

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 HCVF)

Title	Submitted

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	59,341.00		

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

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

Type/name of the third-party certification

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
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Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	575990	0	0
Expected metric tons of CO ₂ e (indirect)	0	836840	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)		575,990		
Expected metric tons of CO ₂ e (indirect)		836,840		
Anticipated start year of accounting		2023		
Duration of accounting		20		

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

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

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

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

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

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 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	5,000	5,000		
Male	5,000	5,000		
Total	10000	10000	0	0

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

Part II. Project Justification

1a. Project Description

1.a Project Description

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

Background

A. The Environmental Context

1. The Philippines is recognized as one of the most important biodiversity hotspots and it is also a global conservation priority area. Together with other megadiverse countries, it hosts over two-thirds (or about 67%) of the Earth's plant and animal species. Of more than 52,100 species described in the Philippines, more than half are found nowhere else in the world. The Philippines is also a home to some of the highest concentrations of both the critically endangered and endangered species on the planet.^[1] However, its **biodiversity** is facing significant threats, along with the other megadiverse countries. At the same time, **land and forest degradation** processes threaten terrestrial and aquatic ecosystems and the livelihoods and the wellbeing of its people.

2. The United Nations' Food and Agriculture Organization (FAO) estimates that about 13 million ha of lands in the country suffer from various forms of degradation, thereby, affecting about 33 million Filipinos.^[2] Moreover, with reference to the Department of Agriculture's Bureau of Soils and Water Management (BSWM)'s land capability categories that are based on soil type and slope gradient, problem soils, which require amelioration and management, cover about 22.6 million ha or about 75% of the country's total land area. Soil erosion is one of the most serious forms of land degradation in the country, in which about 45% of the arable lands were reported by the BSWM (2012) as moderately to severely eroded. Particularly, the alarming land degradation problems affecting the country are caused by soil erosion, soil nutrient depletion, forest degradation and deforestation and widespread conversion of good agricultural lands to urban uses.^[3] Recently, BSWM conducted a land degradation assessment between two temporal thresholds (i.e., 2003-2010 and 2010-2015). The results show a negative trend in land degradation. In addition, the results also show that the largest area affected and showing negative trends is the area under cropland which has increased by about 19,318 ha (i.e., from 11,641 ha to 30,960 ha) during the same temporal interval. The relative increase in the land area under cropland means a corresponding reduction in the respective land areas of other land uses that were used in the study, which were showing negative trends (i.e., Forest, Shrubland, and Wetland). Particularly, about 4,504 ha of shrubland were converted into cropland (i.e., from 11,379 ha to 6,875 ha) during the said temporal benchmarks. The assessment shows that **land use change** has been rampant within the province of Bataan.

3. Land and forest degradation are among the contributors to **climate change** globally, as well as in the Philippines. At the same time, climate change exacerbates variations in yields and income from agriculture, threatening the resilience of ecosystems and the stability of food production systems. Climate change also impacts coastal and marine ecosystems and communities, as further explained below.

B. Manila Bay Catchment Area

4. The province of Bataan is directly connected to the bigger natural ecosystem called the Manila Bay Catchment. The Manila Bay Catchment area extends across three geographical regions and the

National Capital Region (NCR), which encompasses the whole of Metropolitan Manila, a sizable portion of both Central and Southern Luzon (Region III and IV-A), and a few cities and municipalities in Region II. The whole area of more than 17,000 square kilometers is composed of 26 catchments areas, of which four are considered as major river basins. The Bataan watershed is on the northwestern part of the bay. Major basins covered by the Manila Bay Catchment are as follows: (a) Pampanga River Basin (1,099,034 ha); (b) Cavite Watershed (114,250 ha); (c) Pasig-Marikina-Laguna de Bay River Basin (428,150 ha); (d) **Bataan Watershed (123,769 ha)**; and (e) Bay Area (210,169 ha).

5. The Manila Bay Sustainable Development Master Plan (MBSDMP)^[4] reports that the Manila Bay area is amongst the country's most significant areas in terms of impact to economy and governance, besides its cultural and historical value. About a quarter of the Philippines' population resides in the Manila Bay area, and it generates about 53% of the nation's Gross Domestic Product (GDP). The primary economic activities in catchment areas and around the perimeter of the Bay are agriculture, forestry and fishery. Industrial activities in the area include manufacturing, mining and quarrying. The major manufacturing industries are food and beverage, chemical, pharmaceutical, petrochemical and electronic industries.^[5] Agricultural areas in Manila Bay are estimated at 0.9 million hectares planted to crops such as rice, corn, coconut, mango, sugarcane, and other crops such as banana, ampalaya, eggplant, onion, squash, stringbeans, tomato, watermelon, cassava, mungo, pineapple and cashew.^[6]

6. The Manila Bay area is also important in terms of its ecosystems and biodiversity. Currently, several areas within the Manila Bay Basin have already been declared as protection zones under Republic Act 7586, otherwise known as the National Integrated Protected Areas System (NIPAS) of 1992. However, the terrestrial, marine, and coastal ecosystems, along with urban areas within the Manila Bay Area are exposed and vulnerable to anthropogenic pressures, climate change and other natural hazards (i.e., flooding, inducing sea level rise, associated with increased typhoon intensity and leading to changing patterns in temperature and precipitation).

C. Bataan Province

7. Bataan lies in the southwestern part of the Central Luzon Region. It is a strategic peninsular province bounded in the west by the West Philippine Sea/South China Sea, and in the east by the Manila Bay – the gateway to the Philippines' political, social and economic center. It is bounded inland by the province of Zambales in the north, and by the provinces of Pampanga and Bulacan in the northeast. Its capital is Balanga City, about 124 kilometers from Metro Manila and 31.3 nautical miles from Manila across Manila Bay.^[7] The climate of Bataan is greatly influenced by the presence of mountains and its proximity to large bodies of water. It has two distinct seasons: the dry season during the months of November to April and the wet season during the rest of the year. The northeast monsoon prevails over the province from October to January, the east trade winds predominate from February to April and during the rest of the year and from May to September, the southwest monsoon prevails with strong winds generally associated with typhoon.^[8] Based on the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) report on climate projections in the Philippines, it is projected that the amount of rainfall will increase by an average of 3.57% by 2050. According to the Department of Science and Technology (DOST)-PAGASA, average temperature will increase by an average of 1.92°C in 2050.^[9] A soil map digitized by the BSWM shows that majority of the soil in Eastern Bataan Watershed are classified as Tropudults with Tropepts and Oxisols, followed by Eutropepts with Dystropepts, and Mountain soils with Entisols.^[10]

8. Bataan Province has an area of about 137,296 ha, with about 57,088.51 ha or 42% of forestland/timberland, which is fully under the jurisdiction of DENR. The remaining 58% or about 80,207.49 ha is Alienable and Disposable land (A&D land), which primarily includes agricultural and other production lands and settlements.^[11] The province is home to at least 760,650 people (as of 2015), with 10 coastal municipalities (Abucay, Bagac, Hermosa, Limay, Mariveles, Morong,

Orani, Orion, Pilar, and Samal), one coastal city (Balanga), and one land-locked municipality (Dinalupihan). The province has a coastline of approximately 177 km (or 188.66 km when counting the Subic Bay Freeport Zone Area).^{[12],[13]} Bataan is located within the northwestern portion of the whole Manila Bay region and connects directly with Metro Manila through the Manila Bay in its Provincial eastern boundary.

9. Bataan Province is heavily frequented by local and international tourists due to its historical significance and role during World War II (such as, the military fortress at Corregidor, Mariveles, Bataan). It acts as the gateway to the West Philippine Sea or South China Sea in its Provincial western boundary, and thus, has a vital role in national security. It is strategically situated beside the former US Naval Base at Subic, Zambales, within the western side of Region III in central Luzon, northwest of Metro Manila. Before the 1570s, several villages in the coastal plains of Bataan were already thriving communities. The Aetas and Negritos are two Indigenous and Cultural groups living in the upland areas of Bataan and the natives who were predominantly fishermen, farmers, and craftsmen inhabited these coastal villages, while the Aeta tribe occupied most of the hillsides. In 1991, they numbered about 18,423. After Mt. Pinatubo erupted in 1991, Aetas from nearby provinces migrated to Bataan and most of them stayed in Dinalupihan, some in Morong, and few in Bagac, and they are known for their dependency on the environment for their subsistence. The current IP population in Bataan Province is 1,325 families of 4,950 individuals (NCIP, 2021).

10. The province is bounded in the northwest by the province of Zambales, in the northeast by the province of Pampanga, in the east and the south by the Manila Bay, in the west by the West Philippine Sea (also known as South China Sea). Its coastline has about 150 ha of mangrove forest, 999 ha of coral reefs and at least 73 ha of seagrasses.^[14] From the municipality of Bagac to Morong in the western side of Bataan, is mostly mountainous terrain inland, and along the West Philippine Sea coastline, is interspersed with pristine beaches with rocky portions and fringes of coral reefs in good condition which is the haven for marine turtles and other marine animals, while the southern Bataan in the municipality of Mariveles and vicinities is mostly brushland/industrial area, and its coastal and marine area has coral reefs, and seagrasses. The municipality of Limay and northwards are mostly urban centers with large agricultural areas inland, and the coastal and marine area has large tracts of fishpond and mussel culture farms, mangroves and mudflats, which serve as natural spawning area.

Box 1: Municipalities in Bataan Province

The province's 11 municipalities and 1 city have for the year 2015 a total population of 760,650 representing 6.78% of the region's population and ranked fourth (4th) among Region III provinces with least population. The physical resources of the province include the land and water resources. Being mountainous, 80.9% of the total land area are uplands, hills and mountains. Lowlands and plains comprised 19.1% and are mostly agricultural found along the Northern and Eastern coast facing Manila Bay. With more than a hundred rivers, Talisay and Almacen Rivers serve as major rivers in the province. [15] Based on the projected population growth and urbanization, it is anticipated that all municipalities and the city of Bataan will need more land for settlement expansion in the future. [16] The Provincial Development and Physical Framework Plan (PDPFP) of Bataan Province incorporates strategies to ensure sustainability of the anticipated expansion in settlements, such as by directing expansion of built-up areas towards identified constraint free zones. The table below shows the number of farmers and fisherfolk in Bataan Province.

Table 1: Number of farmers and fisherfolk in Bataan Province (DOA Bataan, 2021)

Municipality	Farmers*				Fisherfolk**		
	Total	Rice	Corn	High Value Crops	Total	Male	Female
Abucay	1,494	854	140	500	928	689	239
Bagac	1,427	1,090	49	288	1,672	1,342	330
City of Balanga	996	685	113	198	1,476	1,107	369
Dinalupihan	2,132	1,693	139	300	798	419	379
Hermosa	2,433	1,591	342	500	465	293	172
Limay	435	287	61	87	2,342	1,766	576
Mariveles	539	244	95	200	3,280	2,637	643
Morong	1,823	665	74	1,084	1,922	1,427	495
Orani	948	418	30	500	2,926	2,406	520
Orion	1,025	589	11	425	1,495	1,290	205
Pilar	785	675	-	110	802	502	300
Samal	1,776	865	153	758	997	754	243
Total Project Intervention Areas***	12,033	7,176	927	3,930	9,708	7,330	2,378
Total Province	15,813	9,656	1,207	4,950	19,103	14,632	4,471

*Source: Bataan Provincial Agricultural Office, August 2021

**Source: DA-BFAR, based on FishR 2021

***6 LGUs within BNP (Hermosa, Orani, Samal, Abucay, Bagac, Morong) + Dinalupihan

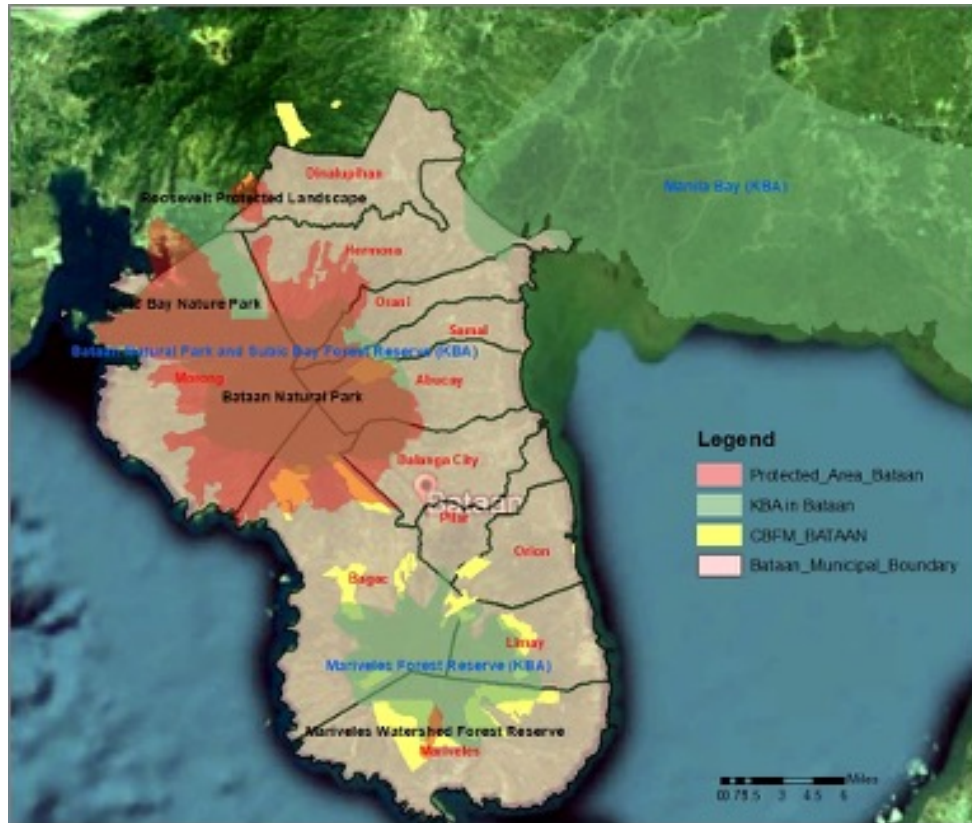
77% 23%

D. Biodiversity and Protected Areas in Bataan

11. The Manila Bay area hosts several **key biodiversity areas (KBAs)**. In Bataan Province, these include the Bataan Natural Park and Subic Bay Forest Reserve KBA in the northwestern part and Mariveles mountains KBA in the south. The Manila Bay KBA only marginally covers Bataan Province on its northeastern edge, although many of its internationally important bird species are also present along Bataan's coast. [17] The KBA in the northwest overlaps significantly with the Bataan Natural Park and Subic Bay Forest Reserve. The Mariveles Mountains KBA contains the Mariveles Forest Reserve. The KBAs are shown in Figure 1 below.

Figure 1: Map of KBAs in Bataan Province, also showing Protected Areas and Community-Based Forest Management Agreement (CBFMAs) (Source: Google maps and DENR shapefiles, 2021)^[1]

^[1] The boundaries and names shown and the designations used on this map (and other maps in this document) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.



12. Bataan Province hosts two out of the ten (10) **Protected Areas** within Manila Bay region, containing about 13% of the Manila Bay region's closed forest or about 11,092 ha out of 86,128 ha. Both are fully under the jurisdiction of DENR: **i) Bataan Natural Park (BNP)**, which was established in 1945 and later modified in 1987, has a total area of 20,004 ha, about 4,366 ha of which (22%) is closed canopy forest, 7,281 ha (36%) is open canopy forest, and 1,421 ha is grasslands (7%)^[18]. BNP covers portions of Hermosa, Morong, Orani, Samal, Abucay, and small areas of Balanga City and Bagac. A survey conducted in BNP in 1998 recorded 211 species of wildlife^[19], and 20 years later, a Rapid Biodiversity Assessment conducted within the buffer zone of BNP recorded a total of 34 species of fauna, including eight mammals, six reptiles, and 20 birds, where; seven avian species were classified as endemic, two in reptile, and one in mammal.^[20] At the same time, it recorded 3,850 plant individuals, belonging to at least 118 species, five of which were classified as endemic. BNP hosts several critically endangered dipterocarp species. In the buffer zone, the top five plant species with the highest Important Value Index were *M. paradisiaca* (banana), *M. indica* (mango), *Cocos nucifer* (coconut), *Gliricidia sepium* (St. Vincent's Plum), and *Anacardium occidentale* (cashew); **ii) Roosevelt National Park**, based on Proclamation No. 273 dated April 2000, the Roosevelt National Park (RNP) was declared to be under the National Integrated Protected Area System (NIPAS), and to be known as the Roosevelt Protected Landscape (RPL). It is within the territorial jurisdiction of the municipalities of Dinalupihan and Hermosa, having a total land area of 786.4 ha, where, about 684 ha (87%) is Grassland, and about 102 ha (13%) is Old Growth Natural Forest.^[21]

13. Being mountainous, 80.9% of the total land area of Bataan Province are uplands, hills and mountains. Lowlands and plains comprise 19.1% and are mostly agricultural found along the Northern and Eastern coast facing Manila Bay.^[22] Water resources aside from Manila Bay and

West Philippine Sea are in the form of rivers, streams, creeks, waterfalls and springs. With more than a hundred rivers, Talisay and Almacen Rivers serve as major rivers in the province. Major sources of fresh water come from three watershed groups such as the Subic Watershed, Mt. Natib Watershed and Mariveles Watershed. Total area of closed forests in Bataan Province is 10,792 ha, and open forests cover an area of 23,325 ha (see Figure 5). Please also refer to Box 2 and Box 3 for more information on the biodiversity in Bataan Natural Park and Roosevelt Protected Landscape. Additionally, in an ethnobotanical study conducted in Dinalupihan in 2018, Ayta communities listed a total of 118 plant species classified into 49 families used as herbal medicines, including *Psidium guajava* L. (guava) and *Lunasia amara* Blanco (a shrub whose leaves are used to treat stomach ache, colds, and skin irritation, among others).^[23]

14. Additionally, Bataan Province hosts globally significant coastal and marine biodiversity. Following the criteria used to consider site inclusion under the Ramsar Convention on Wetlands of International Importance, 70-85% or about 145,000 **waterbirds** of 16 species congregate in Manila Bay during mid-winter months in numbers of international importance.^[24] The Bay hosts 24 migratory waterbird species listed under the Convention of Migratory Species as needing conservation and management through international agreements. Twelve (12) waterbird species are considered **globally threatened or near threatened with possible extinction risks**. Some species occur in extraordinarily high percentages of the East Asian-Australasian Flyway waterbird population. Of the 16 waterbird species occurring with more than one percent of the flyway population, 12 species occur with more than 30% of the **overwintering Philippine populations in Manila Bay**. It is particularly notable for Long-toed Stint (91.9%), Black-headed Gull (86.8%), Pacific Golden Plover (85.1%), Whiskered Tern (73.9%), Kentish Plover (49.9%), and Red-necked Stint (46.3%). Compared to the known flyway populations Manila Bay host at least 53,000 Whiskered Terns (26.8%), 19,000 Pacific Golden Plovers (19.2%), 6,800 Black-winged Stilts (6.9%) and 5,200 Kentish Plovers (5.3%). These figures underscore **the international importance of Manila Bay** and highlight the extraordinary responsibilities of the Philippines to safeguard these critical populations and their habitats.^[25] Within Bataan Province, the areas in Bgy. Puerto Rivas and Tortugas in Balanga City are noted for the migratory birds that visit these areas during the migratory season congregating in numbers of international importance.^[26]

15. **Mangrove areas** are found in the eastern portion of the province specifically in the municipalities of Hermosa, Orani, Samal, Abucay, Pilar and Orion and the City of Balanga. Bataan has about 150 hectares of mangrove forest being maintained and protected by the DENR. They protect the coastal area and communities from storm surges, waves, tidal currents and typhoons. Fish, crustaceans and mollusks can be harvested from mangrove areas. Aquaculture and commercial fisheries also depend on mangroves for juvenile and mature fish species.^[27]

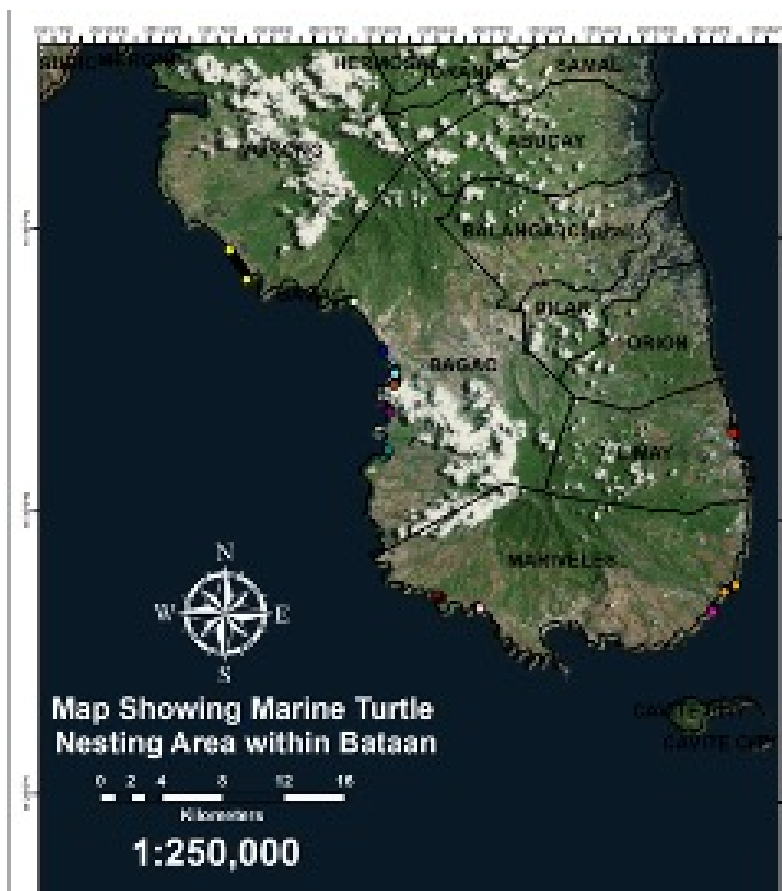
16. **Seagrass areas** and seagrass patches can be found from portions of Morong down to Mariveles, along the western coastline of Bataan Province. Seagrasses still thrive in Bagac and Morong with an estimated cover of 76.96%.^[28] The presence of significant seagrass growth has also been reported in the municipalities of Orion and Mariveles along the Manila Bay. However, no clear spatial data is available on the distribution and extent of these seagrass beds. To date, only the coastal habitat assessment report of Manila Bay (1996) provided information on the seagrass ecosystem of the bay. It is likely that seagrass beds within the inner bay have already been decimated. It is estimated that almost 30 to 50% of seagrass habitat has been lost to land conversion, heavy siltation, coastal development, mining and agriculture in Manila Bay.^[29]

17. **Coral reef patches** are also found in Mariveles, Bagac to Morong along the western coastline of Bataan. In Manila Bay, distribution of coral communities and coral reefs are limited. Coral communities can be found along the fringes of the coast of Mariveles and Cavite. Currently, data on coral communities and coral reefs in Manila Bay are scarce and limited only to the municipality of Mariveles and the province of Cavite. Coral reefs have an estimated area of 999 hectares ? Morong has 464 hectares; Bagac has 426 and Mariveles has 109 hectares.^[30]

18. **Mudflats** in the Manila Bay area provide important feeding and resting grounds for migratory birds. However, these habitats have been polluted, degraded and fragmented, primarily due to land conversion. At present, it is estimated that only 1,343 hectares of mudflat remain in Manila Bay. Anthropogenic activities have also affected the deep, muddy habitat of the bay. Extensive sedimentation, nutrient run-off from aquaculture and agriculture, and domestic pollution, have resulted in anoxic conditions of the bottom sediments.^[31]

19. **Marine turtle** nesting areas are also found along Bataan's coastline. Out of the eight known species of marine turtles in the world, five species have been recorded to be frequenting the coastal line of Bataan Province^[32]: i. Green turtle (*Chelonia mydas*), ii) Hawksbill turtle (*Eretmochelys imbricata*), iii) Olive Ridley turtle (*Lepidochelys olivacea*), iv) Loggerhead turtle (*Caretta caretta*), and v) Leatherback turtle (*Dermochelys coriacea*). However, only three out of the five species (i.e. Green turtle, Hawksbill turtle, and Olive Ridley turtle) nest within the coastal line of Bataan Province and the rest only forage in Philippine waters. The hawksbill and the green turtles nest throughout the Philippines year-round, but the Olive Ridley turtles nest mostly in the provinces of Zambales, Bataan, and Batangas, during the months of August to September. As shown in Figure 2, the turtle nesting areas in Bataan are found in Morong, Bagac, Mariveles and Limay municipalities. Several marine turtle hatcheries are currently managed by People's Organizations (POs) and Local Government Units (LGUs) in these municipalities in coordination with DENR.

Figure 2: Marine turtle nesting sites within Bataan Province (Source: BMB presentation, 2021)



20. **Fisheries.** Manila Bay is the oldest traditional fishing ground of the country and one of the most heavily exploited. The protection of the shallow coastal habitat of the bay is critical to fisheries in Manila Bay. These habitats provide refuge, feeding and breeding grounds to a diverse

aggregation of fish. Aside from capture fisheries, aquaculture has been intensely practiced in Manila Bay. Fishponds and floating fish cages have increased notably in the bay.^[33] A study conducted in 2014-2015 recorded a total of 146 fish and invertebrate species belonging to 48 families wherein most of the catches were dominated by small pelagic species such as anchovies and sardines. The study also highlighted that the exploitation rates for the six (6) dominant species (*Sardinella gibbosa*, *Sardinella fimbriata*, *Valamugil seheli*, *Mugil cephalus*, *Encrasicholina devisi* and *Stolephorous commersonii*) showed signs of overfishing.^[34]

21. Six (6) fish sanctuaries or locally protected marine protected areas (MPAs) were established in the early 2000s along Bataan's coast, through municipal ordinances.^[35] However, these sanctuaries appear to be currently inactive, and detailed data on their habitat and extension is missing. A 1.5-hectare fish sanctuary was declared in Abucay under Resolution No. 15-B-2016. Previous activities on the fish sanctuary include fencing and stocking of 5 kilos of kapis. Stakeholders have expressed interest in reviving this sanctuary/reserve.

Municipality/MPA	Year established	Area (ha)
1. Abucay Fish Sanctuary	2016	1.5
2. Bagac Marine Protected Area	2012	13.7 ^[36]
3. Limay Fish Sanctuary	2005	7.5
4. PNOC (Philippine National Oil Company) Fishery Reserve Area	2001	25
5. Marine Turtle Conservation Center (Pawikan Conservation Center) in Morong	2001	
6. Orion Kent Fish Sanctuary	1994	25

Box 2: Bataan Natural Park (BNP) (WDPA ID 7215)^[37]

22. *Biodiversity values.* The main designated value of BNP is that it is a habitat to threatened species. In the floral inventory alone, as stated in the 2018 Biodiversity Assessment and Monitoring System (BAMS) report by the Protected Area Management Office of BNP, all of the identified critically endangered species in BNP belong to the family Dipterocarpaceae, particularly White Lauan (*Shorea contorta*), Red Lauan (*Shorea negrosensis* Foxw.), and Taguile (*Shorea polysperma* (Blanco) Merr.). They are all endemic to the Philippines. BNP also hosts the near-threatened Piling liitan tree (*Canarium luzonicum*) and the vulnerable Almaciga (*Agathis philippinensis*). The significance of BNP as a protected area is further emphasized by the fact that it is one of the few remaining old-growth forests in the Zambales Biogeographic Zone.^[38] Species Level Assessment of BAMS in 2019 reported forty-three (43) unique species comprising two Arthropods Classes. Amongst the avian species, the BAMS of 2018 recorded a total of eighteen (18) species of birds amongst thirteen (13) avian families mostly populated by the wild parrots of Family Psittiacidae. The relatively extensive forests that remain in BNP support important populations of several threatened and restricted-range birds of the Luzon Endemic Bird Area, notably the vulnerable Rufous Hornbill (*Buceros hydrocorax*) and the endangered Green Racquet-tail (*Prioniturus luconensis*). Sightings of the vulnerable Philippine Duck *Anas luzonica* are recorded in BNP though greater numbers are in the Subic Bay. Also found in BNP, but not yet recorded in any BAMS in BNP, are the endangered Giant golden-crowned flying fox (*Acerodon jubatus*) and the Large Flying Fox (*Pteropus vampyrus*).^[39]

23. BNP plays a critical role as a major watershed. The watersheds of BNP are the main sources of ground and surface water that supply the domestic, industrial, and agricultural needs of communities around the Protected Area. Lowland agricultural lands found along the eastern and western coasts of Bataan draw its irrigation water from the surface water that originates from BNP.^[40] Pinulot Watershed is one of the 15 critical watersheds identified in Manila Bay area. The watershed spans the provinces of Bataan and Zambales, covering the municipalities of Dinalupihan, Hermosa, Morong, Olongapo City and Subic with an area of approx. 8,850 hectares. It covers parts of Bataan Natural Park and Roosevelt Protected Landscape.^[41]

24. *Threats to biodiversity.* The main threats to the biodiversity of BNP include agricultural plantation development, land speculation, illegal logging, shifting cultivation, pollution, and hunting and gathering of non-timber products. It has also been observed that pesticides applied in adjacent agricultural land may affect pollinators in the park. Finally, climate change and the presence of invasive alien species such as *Chromolaena odorata* (Hagonoy) and *Rhinella marina* (Cane toad) also represent a threat to the biodiversity of BNP.^[42]

25. *Management zones.* BNP has a total area of 20,004.17 ha and shares territorial jurisdiction with nineteen (19) barangays, distributed in the six (6) municipalities of Orani, Hermosa, Samal, Abucay, Bagac, and Morong. The old growth forest of BNP is mainly confined to the steep slopes and gullies at higher altitudes. The lower slopes of the mountains are covered by grassland, cropland and secondary growth forest. BNP also covers a coastal area in the municipality of Morong. BNP has two designated management zones: (1) the Strict Protection Zone (SPZ), representing about 37% of the total area (7,405 ha), and (2) the Multiple Use Zone (MUZ), representing 63% (12,599 ha). The SPZ is subdivided into Conservation Zone and Riparian Zone. The MUZ contains the Forest Restoration and Rehabilitation Zone; Cultural Zone; Ecotourism Zones; Special Use Zones; Settlement Zones; and the Agricultural and Agroforestry Zone.^[43] A formally delineated Protected Area (PA) buffer zone does not yet exist, although some pilots were undertaken in 2014.

26. *Management plan.* An updated management plan was finalized in 2020, covering the period 2021-2030. During this process, local plans from LGUs and FLUPs from DENR were considered by the Technical Working Group in its effort to formulate a harmonized management plan. According to land cover data of 2015, BNP improved its forest cover by 5.5% compared to the base year 2010, although some forest fragmentation is also observed. A shift from grasslands and wooded grasslands to shrublands is apparent at the side of BNP in Hermosa where sites of National Greening Program (NGP) (a DENR initiative^[44]) were developed and maintained by partner People's Organizations (POs). NGP sites in Bagac turned former shrublands into Open Canopy Forests.^[45] A Management Effectiveness Tracking Tool (METT) assessment was carried out in 2020. Overall METT rating increased from 2013 to 2016, but decreased between 2016 and 2020, with the threats to biodiversity generally increasing. The BNP management plan includes the following management programs/ priorities:^[46]

Box 3: Roosevelt Protected Landscape (RPL) (WDPA ID 7214)^[49]

33. *Biodiversity.* RPL has a total area of 786.4 hectares, of which 303 ha being occupied by houselots and farmlots, as well as recreational areas. RPL has 4 critically endangered, 5 endangered and 15 vulnerable species among the species identified. These include, among others, the critically endangered White Lauan (*Shorea contorta*), the vulnerable *Pterocarpus indicus* Willd, *Mangifera altissima* Blanco, and the vulnerable Rufous Hornbill (*Buceros hydrocorax*). In 2003, RPL was predominantly grassland. According to the 2010 land cover map, the prevailing land use was perennial crops.^[50]

34. *Threats to biodiversity.* The increasing local population and expansion of occupied areas by the RPL occupants is considered one of the main threats to biodiversity in RPL. A study on the conservation status of biodiversity in RPL highlighted the following threats: infrastructure projects, illegal harvesting of forest resources, forest fires during summer season, and encroachment by local people. The study recommended site-specific policy interventions at the local and national level and a management shift that encourages local people participation in shared management responsibilities to ensure ecological integrity and sustainable use of RPL. It also recommended that native plant species and species identified as endangered, threatened and under vulnerable status be propagated in disturbed areas of RPL.^[51]

35. Terrestrial ecosystems within RPL are vulnerable to climate change impacts such as increased temperature, erratic rainfall patterns, and extreme climatic events including typhoons and flood. Such occurrence leads to the categorization of the southern half of RPL as highly susceptible to flooding and flash flood. On the other hand, the northern half of RPL is categorized as from highly to very highly susceptible to landslides. Forest fire during the summer months also poses a threat in the RPL.

36. *Management Plan.* The PA Management Plan and the Ecotourism Management Plan of RPL are currently under the process of formulation and will cover the period 2021-2030. The management plan is developed in coordination with the concerned LGUs (Dinalupihan and Hermosa) and their Comprehensive Land Use Plans (CLUPs) and Forest Land Use Plans (FLUPs) are used as a reference in the planning process. The METT assessment of RPL was also completed. RPL has 1) a Strict Protection Zone/Restoration Zone (includes NGP plantation sites); and 2) Multiple Use Zone. No buffer zone has been formally established.

37. RPL has ongoing collaboration with BNP, in particular for biodiversity assessments and monitoring using the BAMS monitoring system.

38. The population within RPL grew from 788 households in 1994 to 1,499 households in 2011 (of which 813 female-headed). Of the 1,796 households in the 2016 SRPAO report, 665 are Qualified Tenured Migrants. No Indigenous Peoples live inside RPL. According to an Information, Education and Communication (IEC) campaign conducted in RPL, occupants are not aware of the classification of the area they are occupying. The Survey and Registration of Protected Area Occupants (SRPAO) 2016 showed that the migrants in RPL conduct the following livelihood activities in the park: Gathering bamboo and hunting for household use; gathering of fishes/ crabs/ snails from creeks and rivers; and timber collection and utilization for home use.

39. There are four barangays within RPL. Several house bills have been introduced (still pending) to reclassify the four barangays as Alienable and Disposable Land. If these are approved, the concerned barangays would be considered outside RPL and may become part of its buffer zone. The draft management plan of RPL foresees that local communities of the four barangays will be encouraged to participate in the management of the RPL. People's organizations and members of local government units will facilitate the management of natural resources within their respective areas. Community Resource Management Plans (CRMP) and community resource maps will be formulated for each barangay.

40. Most of the migrants living inside RPL do not depend on the remaining natural resources for their subsistence since most are employed outside the PA. Only 4.61% of residents of RPL are engaged in agriculture. However, implementation of alternative livelihood activities is still considered important given the increasing population. The members of the PAMB will require skills in management planning and policy development. To ensure the significant and active participation

Box 4: Mariveles Watershed Forest Reserve (WDPA ID 306403)^[53]

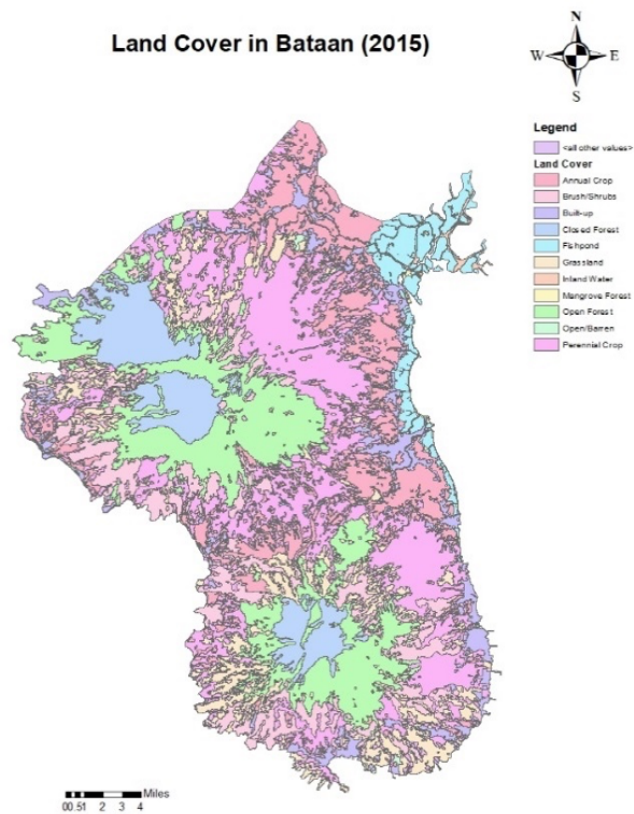
43. The Mariveles Watershed Forest Reserve was established through R.A. 3092 in July 1996. It covers an area of 15,491 ha and supplies water to several municipalities in Bataan. Its forest area is reported to include both lowland and montane forest, including mossy forest. This includes old reforestation plantations in the former Lamao Arsenal and old growth forest at the peak of Mt. Mariveles.^[54] The forest reserve was a site of the USAID B+WISER project, which conducted a study on payment for ecosystem services (PES) scheme for the conservation of forests and watersheds in the province. Like many other forests, the forest reserve faces a lot of threats such as shifting cultivation, timber poaching, and poor land use practices. As shown in Figure 1, Mariveles Watershed Forest Reserve only covers a small portion of the Mariveles KBA. Several CBFMAs have been established in the area. The Mariveles watershed is a site of the FAO IKI Forest Landscape Restoration project (see following section), which will help strengthen CBFMAs in the watershed area. Please refer to Figure 1 for a map showing Mariveles Watershed Forest Reserve.

E. Land cover, current land use practices, and land use change

44. The map and table below show the landcover map of Bataan in 2015. About 7.9% of Bataan's land area is covered by closed forests, 17% by open forests, 9% by grasslands, and 0.2% by mangroves.

Figure 5: Land Cover of Bataan in 2015^[55]

Land Cover in Bataan (2015)



Land Cover and Area of Bataan in 2015

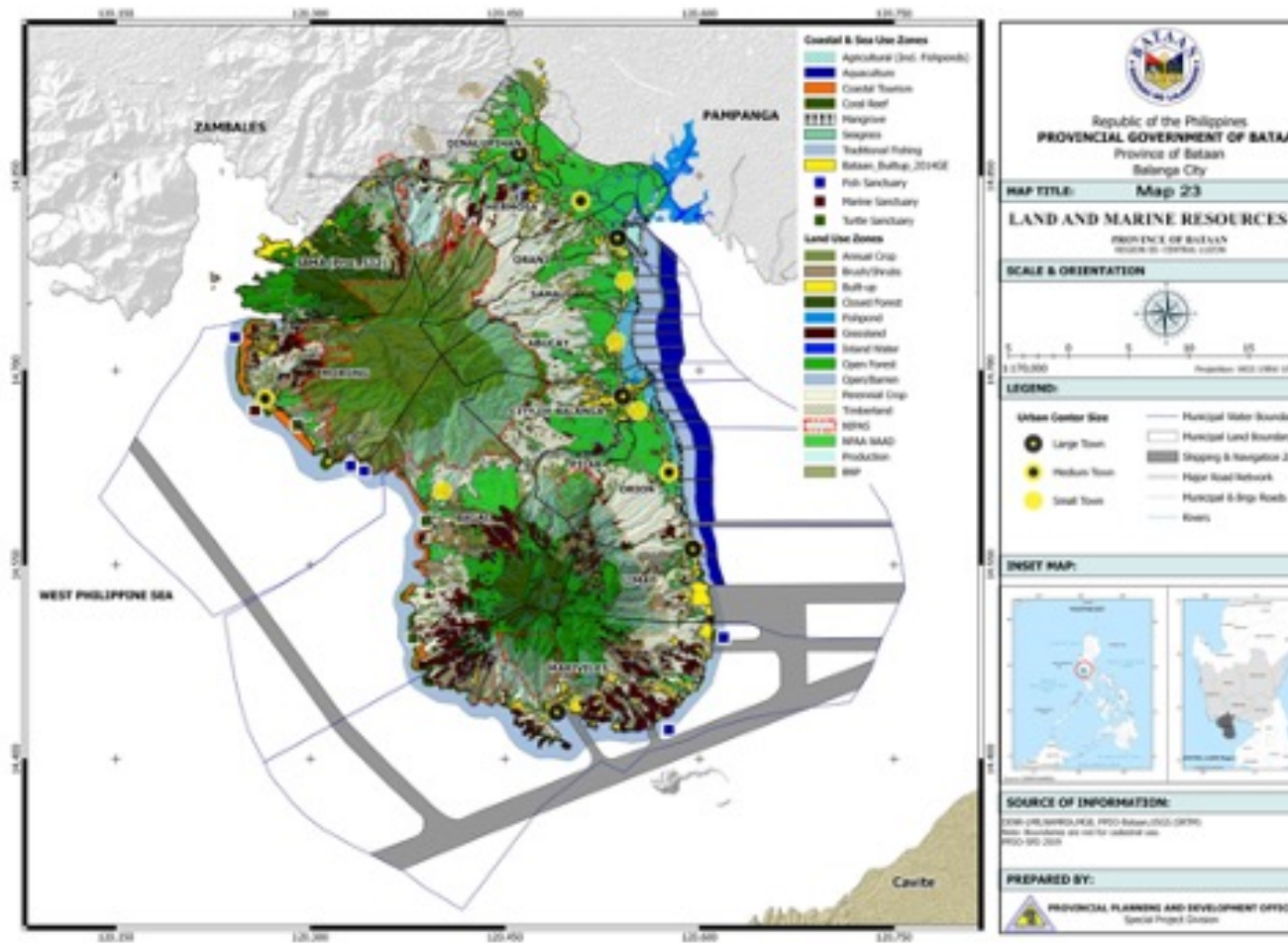
Land Cover	Area (hectares)	Percentage
Annual Crop	19,772	14.4%
Brush	16,117	11.7%
Built-Up	8,176	6%
Closed Forest	10,792	7.9%
Fishponds	5,332	3.9%
Grassland	12,380	9%
Inland Water	880	0.6%
Mangrove	342	0.2%
Open Forests	23,325	17%
Open/Barren	225	0.2%
Perennial Crops	34,731	25.3%
Other	5,224	3.8%
Total	137,296	100%

Land Cover and Area of Bataan in 2015

45. Figure 6 shows the different land uses and major coastal habitats in the province of Bataan. The province has four (4) major protection lands, colored in dark green in the map, namely: (a) Bataan National Park covering portions of the municipalities of Hermosa, Samal, Orani, Abucay, Bagac and Morong; (b) Roosevelt National Park in Dinalupihan; (c) Mt. Samat Shrine in Pilar; and (d) Mariveles Watershed Forest Reserve. Alienable and Disposable (A&D) land, colored light green, is further categorized into built-up/settlement areas colored yellow and production lands under A&D colored green. Settlements are found in all municipalities and the city, wherein Balanga City is the primary urban center having the largest concentration of built-up

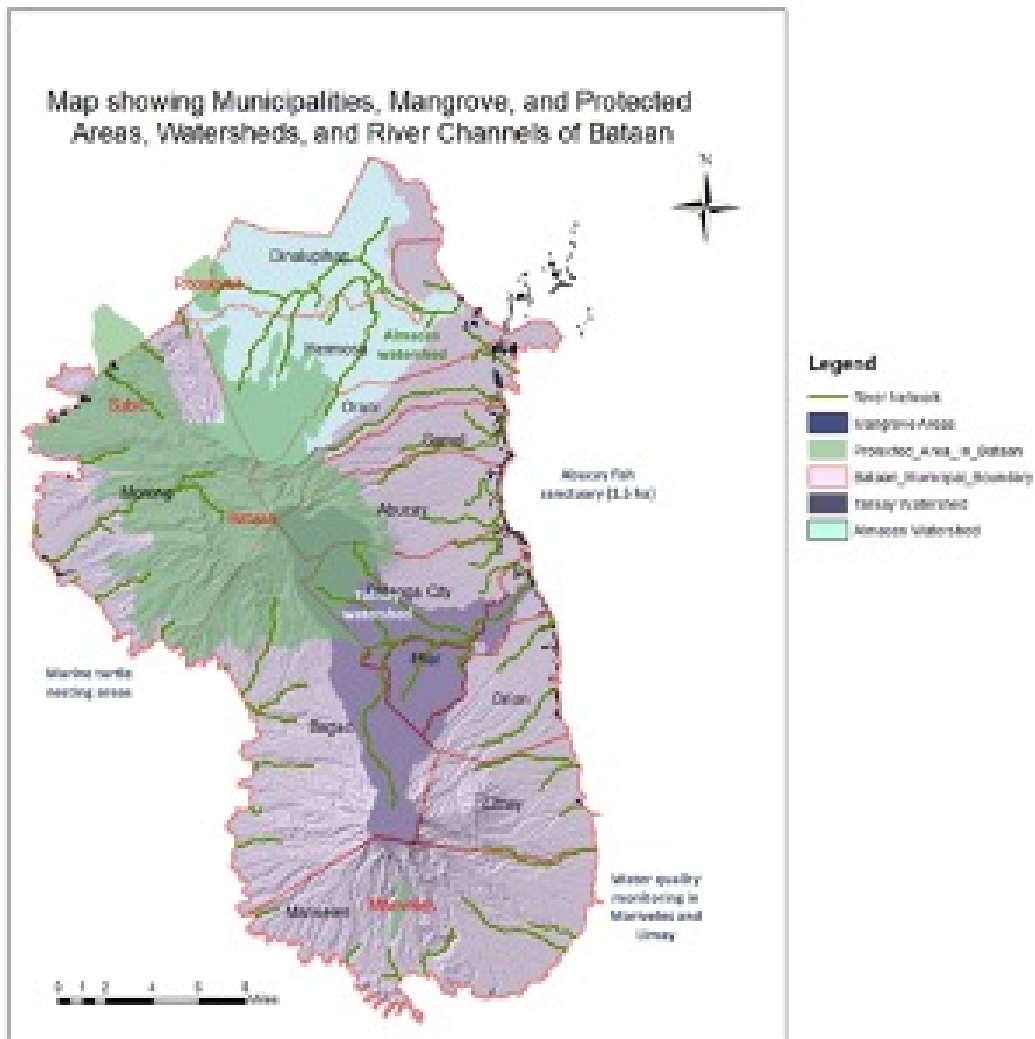
areas. The production lands under A&D land include four main categories: irrigated rice/fishpond; cultivated annual crops; perennial trees; and vines and pastures. Major crops grown in Bataan Province are upland rice, lowland rice, coconut, mango, cashew, corn, and vegetables. Majority of production areas within forest land can be found in the municipalities of Bagac, Mariveles, Limay, Orion, Abucay, Samal and the City of Balanga. Shifting cultivation is still practiced in some upland communities. In terms of coastal and marine resources, identified uses and resources include (a) coral reefs and seagrasses, (b) mangroves and mudflats, (c) traditional fishing zone, (d) aquaculture, (e) municipal fishing zone, and (f) coastal tourism. [56]

Figure 6: Map showing land and marine resources of Bataan Province [57]



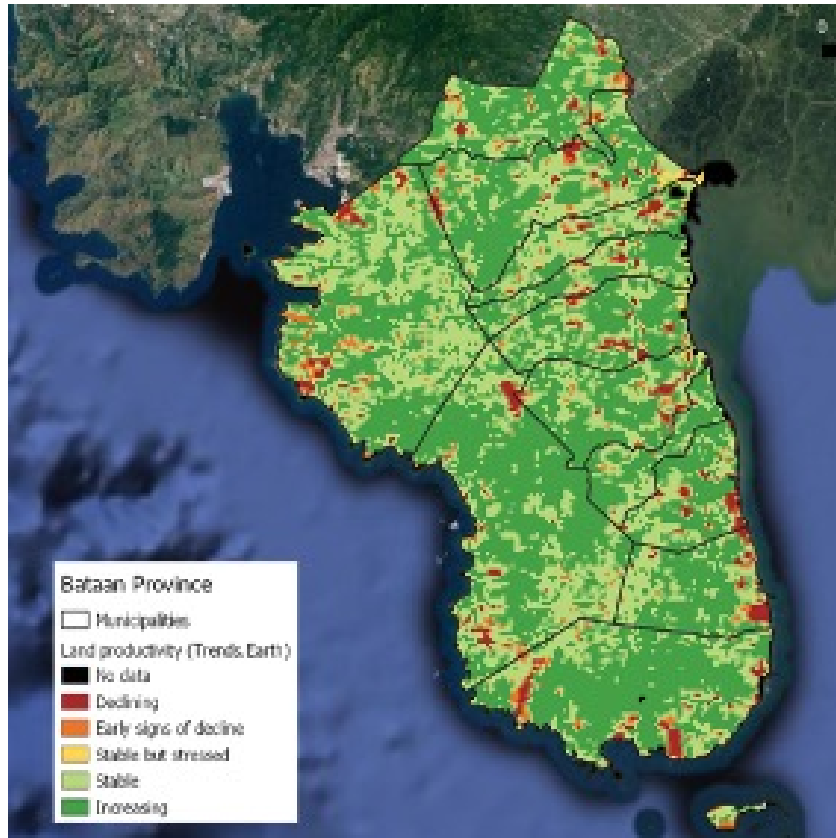
46. Figure 7 illustrates the 11 municipalities and one city in Bataan province, along with mangrove areas, protected areas, the two watersheds of Almacén and Talisay, and river channels of the province. The province of Bataan is directly connected to Manila Bay through its network of streams and rivers, particularly on the eastern side of the province. As shown in the figure below, much of the effluent materials from Bataan, particularly on the northeastern side, will ultimately drain and reach Manila Bay. Soil erosion from the slopes of the hills and mountains of Bataan ultimately reach Manila Bay thereby increasing the bay's amount of siltation and sedimentation. Finally, solid and other chemical wastes from nearby towns of Bataan will also drain to the bay through the stream networks and river channels. Soil erosion and sedimentation from the upland areas is also affecting the West Philippine Sea, where most of the province's coral reefs and seagrasses, as well as turtle nesting sites, are found.

Figure 7: Map showing PAs, mangrove areas, two key watersheds and main river channels in Bataan Province



47. Figure 8 shows the degree of land degradation in the municipalities of Bataan during the period 2001-2019. The extent of the degradation in each of the municipalities is summarized in the table below. From this analysis, the land area is stable in 52.07% of Bataan, and improving in 30.76% of the area. However, degradation trend is observed in 16.64% of the land area of Bataan. This appears to be mostly concentrated around the industrial area along the coast, urban centers, as well as some lowland and upland agricultural lands and forest areas. Land degradation can also be observed in the frontier with Bataan Natural Park and Roosevelt Protected Area. Project interventions will focus on these areas to address drivers of degradation in these areas, among others.

Figure 8: Bataan land productivity map 2000-2019 (Trends.Earth)

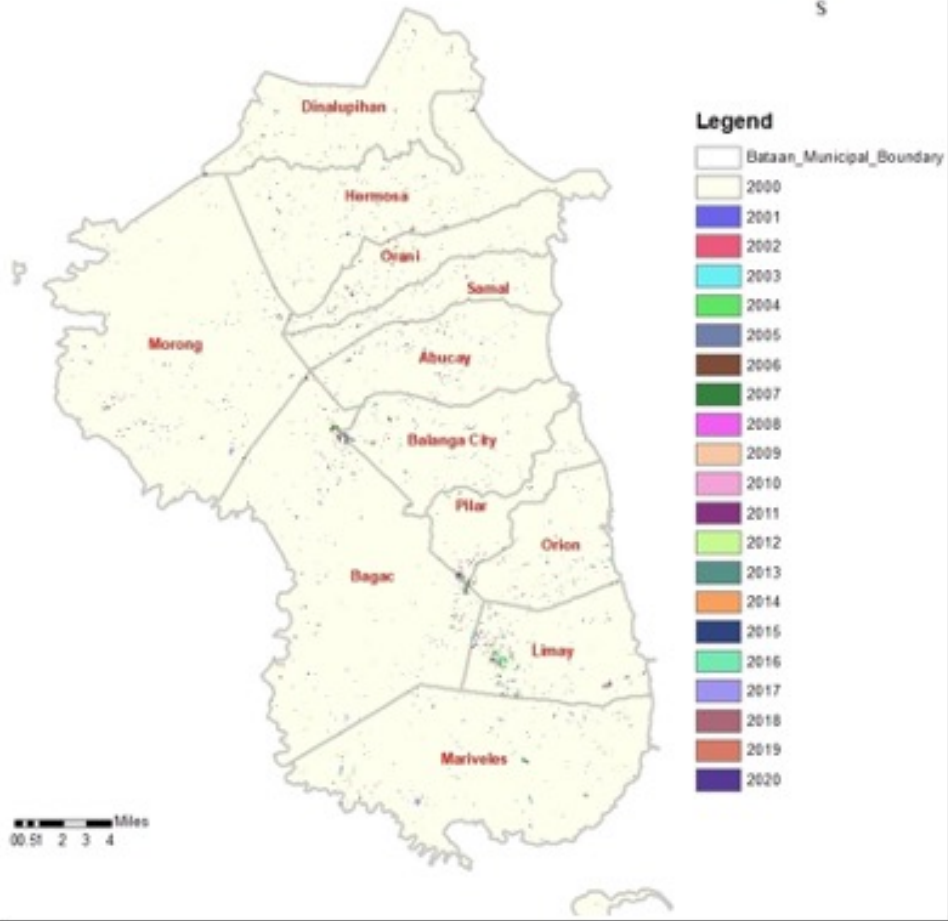


Municipality	Area (ha)	Degradation trends.earth (%)
Abucay	7,774	8.91%
Bagac	22,741	4.59%
Balanga City	8,070	10.51%
Dinalupihan	9,512	8.34%
Hermosa	13,512	8.89%
Limay	7,422	11.49%
Mariveles	18,554	8.83%
Morong	24,027	7.28%
Orani	5,320	13.62%
Orion	5,971	11.21%
Pilar	4,112	3.01%
Samal	4,676	9.54%

48. Finally, the average annual deforestation is approximately 111 hectares, with a declining trend in the decade 2010-2020 compared to the previous decade. The figure below shows location and geographic extent of the annual deforestation from 2000 to 2020.

Figure 9: Annual Deforestation 2000-2020 (numbers in the table are in hectares) (source: Hansen et al 2021)

Annual Deforestation in Bataan (2000 - 2020)



Year Deforested	
2000	108
2001	70
2002	92
2003	127
2004	136
2005	220
2006	135
2007	37
2008	166
2009	188
2010	90
2011	284
2012	31
2013	62
2014	36
2015	98
2016	136
2017	96
2018	57
2019	62
2020	72
Annual Average	111

F. Threats, root causes and barriers that need to be addressed

Threats

49. The project site (i.e., Bataan Province to Manila Bay) is confronted with similar spatial pattern of threats to what was reported in the global "Assessment of threats to terrestrial protected areas"^[58], leading to biodiversity loss and land degradation. These threats include illegal logging and wood harvesting, encroachment and agricultural expansion, unsustainable farming practices, hunting and collecting of terrestrial plants, storms and flooding, infrastructure development leading to wildlife habitat destruction, soil erosion and sedimentation in coastal areas and riparian zones, and pollution of waterbodies. In Manila Bay, although part of the present issues is due to activities in the Bay itself (over-fishing, dredging), the main problems in the Bay come from activities on land. The pollution of the Bay comes from the inflow of polluted rivers; untreated wastewater from residential, commercial and industrial sources; insufficient collection of solid waste in the urban and rural areas; and siltation from the uplands due to unsustainable agricultural practices, which is compounded by the changing climate condition and extreme climate events.^[59]

50. Illegal logging and encroachment/agricultural expansion. Large-scale Government-approved logging operations within the natural forests of the Philippines stopped in early 1990s. However, there is still small-scale timber poaching happening in the untenured or open access forestlands, due to weak implementation of forestry and environmental laws and a lack of awareness. Some coastal dwellers resort to timber-poaching and logging during the off-peak fishing season, due to absence of alternative livelihood opportunities.^[60] From the total land area of Bataan Province, about 57,088.51 ha or 42% is forestland/timberland administered and managed by DENR, and the remaining 58% is A&D land. The forestlands are under the jurisdiction of the DENR. DENR deploys forest guards to protect the natural forests from illegal harvesting or poaching of both the fauna and flora. However, the agency is not able to fully protect the natural forests due to limited resources and other constraints. The implementation of forest and environmental laws and relevant local ordinances within the forestlands is weak. Encroachment and agricultural expansion have also contributed to a decrease in forest cover over the past decades, although detailed data is lacking.

51. Unsustainable Farming Practices. Relative to the presence of upland farms within forestlands, in addition to timber poaching, there are other issues such as uncontrolled fire and fire suppression, which usually happens annually during the dry months of late March, April, May, to early June. This is generally blamed on upland farmers that settle in the forestlands and continually till the soil erosion-prone lands along steep slopes, practicing slash-and-burn farming, for lack of alternative livelihoods. This is exacerbated by extreme temperatures due to climate change. When fire escapes from the upland farms, fire immediately extends to the vast open grasslands in the vicinity. Fire destroys everything along its path, including emerging wildlings of various pioneer tree species that are supposed to result in natural ecological succession, while at the same time, leaving the loose topsoil unprotected and vulnerable to the damaging effects of heavy rainfall. Deforestation due to illegal cutting of trees, shifting cultivation and unsustainable agricultural practices are common in all municipalities in the province and are identified as primary causes of siltation in the coastal plains and in coastal areas. ^[61] The lack of soil conservation measures and practices in agroforestry and agriculture, combined with the adverse impacts of climate change and deforestation, lead to increased soil erosion.^[62]

52. Hunting and over-extraction of terrestrial plants. Considering the proximity of the Protected Areas and other biodiversity-rich areas to the urban population centers, these areas are, indeed, being used for recreation and tourism, which are sensitive, and often destructive, activities to the protected areas. These areas are regularly visited during the weekends, mostly by the local population. These PAs and biodiversity-rich areas are already threatened by hunting and over-extraction of terrestrial plants. The frequent visits of tourists in the area contribute to the

degradation of wildlife habitat and are often the source of uncollected solid wastes. Additionally, the presence of upland dwellers practicing unsustainable upland farming systems along the buffer zone of the Roosevelt Protected Landscape, further contributes to habitat degradation and fragmentation. Apart from the direct reduction in the population of the affected wildlife, other ecosystem services are also impaired, such as the microclimate modification, sustained supply of high-quality surface water, soil erosion control, groundwater recharge, food, medicines, protection from natural disasters, natural pollination, and protection from pests and diseases.

53. Storms and flooding. The recently recorded flood within Bataan on 4 August 2019 made the residents use the boat as a means of transportation in going out and back to Barangay Almacen in Hermosa, Bataan. Flash floods hit seven out of 11 towns, and one city of Bataan, which affected nearly 8,000 families.^[63] With the advent of climate change, this scenario is likely to be a common sight within these affected localities, and in higher intensity. Additionally, the province of Bataan is frequently visited by a number of strong typhoons annually.

54. Infrastructure development and land use change. Unsustainable tourism development has led, in some instances, to illegal structures built within the national parks. Ecotourism enterprises are required to enter into a memorandum of agreement with the parks. However, land speculators are sometimes acquiring lots for possible business or ecotourism development before entering into an agreement with the park. Despite the presence of the LGUs' Comprehensive Land Use Plans (CLUPs) and Forest Land Use Plans (FLUPs), there is still widespread inappropriate land use, particularly, within the highly vulnerable and flood-prone areas. This is partly due to the violent volcanic eruption of Mt. Pinatubo on 15 June 1991 within the headwaters of Pampanga River, which also affected the province of Bataan due to the great volume of pyroclastic (lahar) materials and ash-fall delivered within both the lowlands and the uplands. The said volcanic eruption has changed the river and stream courses and covered land depressions during the first decade after the eruption. Some of the landowners were able to relocate the concrete monuments of their titled properties. However, some farmers opted to move to other higher places and the next recourse was the nearby protected areas and open access forests, where implementation of forest laws has been inadequate. Rampant land use changes through land conversion activities have been happening within the Bataan Province: wetlands have been converted into settlement areas, and productive agricultural farms are converted into housing areas. In the past, portions of productive mangroves have been converted into fishponds.

55. High level of sedimentation, excessive siltation, and soil erosion. Unprotected soil in the steep slopes and riverbanks deliver thousands of tons of rich topsoil down the rivers systems. Heavier materials are deposited in the riverbeds as sediments, and lighter soil materials, such as silt and clay materials, are flushed out into the mouth of the rivers and onto the sea and deposited over the seagrasses and coral reefs. Nutrient loading such as nitrogen and phosphorus from point and non-point sources leads to algal bloom. This eventually affects the livelihoods of fisher folks, upland farmers, and Indigenous Peoples (IPs), who are dependent on these resources. Along with the soil materials eroded from the uplands and from the collapsed riverbanks, are the precious soil macro and microelements leading to the continuing depletion of soil nutrients that are needed for plant growth and survival. According to the study on Land Degradation within Region III conducted by DA-BSWM^[64], vital soil nutrients are washed out and leached from their locations in Bataan province resulting in negative trends and loss of soil nutrients from the natural system seriously affecting the farmers' crop yield and community food supply, while at the same time, polluting the river systems and eventually finding their way into the coastal zone, and eventually to the ocean. While the sedimentation and its impacts on coastal habitats have not yet been quantified, procedures and methods on how these impacts can be estimated have been described.^[65]

56. Pollution of waterways. Increasing discharges from domestic, industrial and agricultural sources have led to the degradation of water quality, ecology and the environment in Manila Bay. Pollution from households along the coastal zones and waterways and urban areas are common sources of organic as well as inorganic pollutants in Manila Bay due to the absence of sufficient

solid waste management and sanitation facilities. Pollution also comes from other sources including surface runoff from agricultural areas that carry nutrients and residues of chemical pesticides. The deeper waters of Manila Bay are depleted of dissolved oxygen for most of the year. This is a serious problem for ecosystem health and fisheries. Sediments from soil erosion in upstream areas where improper farming practices and other erosive land use practices are common contributors as well to the pollution of waters in Manila Bay and rivers feeding to the bay. It has been highlighted in recent focus group discussions in Barangay Wawa in Abucay that the rivers of Wawa are becoming shallow due to runoffs and deposition of eroded soil coming from the mountain. The issue of waste management has also been highlighted in recent focus group discussions in coastal barangays of Bataan.^[66] Unregulated housing development in coastal and riverine areas further aggravates the issue. Agricultural inputs such as chemical fertilizers and pesticides are washed away by the rains and contribute to increased nutrient levels of the Bay. Improperly managed livestock waste also contributes to water pollution. The resulting poor water quality adversely affects the health of the ecosystem.^[67]

Pressures and root causes

57. Population growth. Demographic changes along with migration are among the root causes of the pressures on Bataan's natural resources. Despite a declining population growth rate, the population of the various zones in the Manila Basin area is still expected to grow.^[68] The Manila Bay Situation Atlas has reported that demand for agricultural land will continue to increase. At the same time, there is continuous conversion of agricultural land to built-up uses to accommodate the needs of a growing population.^[69] The Provincial Development and Physical Framework Plan (PDPFP) of Bataan Province^[70] proposes strategies to ensure the sustainability of the anticipated expansion in settlements, such as by directing the expansion of built-up areas towards identified constraint-free zones.

58. Excessive use of natural resources and lack of alternative livelihoods. Most of the Manila Bay area is utilized for agriculture. Capture fisheries and aquaculture on the other hand are two of the main sectors that significantly contribute to the economy of the Manila Bay Area. As the population in Manila Bay is rapidly increasing, and natural resources remain limited, the use of the available resources has intensified and has led to further overexploitation. At the same time, alternative livelihood support is inadequate as it only reaches a limited number of farmers.

59. Climate change. Increase in rainfall intensifies surface soil erosion, especially in sloping lands with scant vegetation cover or hilly lands used for farming. Consequently, the fertility of soil decreases along with the income of farmers. The amount of sediments that are carried away by streams and deposited in streambeds, coastal areas, seabed and coral can cause damage to ecosystems and the plants and animal life therein. The increase in inflow of freshwater into the coastal areas and marine ecosystems due to increase in rainfall also often means increase in the amount of loading of nutrients, and organic and inorganic pollutants. This may be harmful especially to marine life that is sensitive to even the slight increase in the amount of nutrients and pollution in seawater.^[71] Typhoons and storm surges driven by strong winds of tropical cyclones will continue to threaten the coastal areas of Manila Bay and impact coastal and marine ecosystems and vulnerable communities, especially fisherfolk.^[72] National Greening Programme (NGP) sites are also affected by landslides susceptibility often triggered by heavy rainfall. Increased drought during dry season is expected to exacerbate the lack of water supply for irrigation during dry season.^[73]

60. Insufficient tenure arrangements. In contrast to tenured forestlands, illegal land-based activities are mostly occurring within open access forestlands. In many of the forestlands within the project site, there are migrant upland farmers tilling the open areas without the necessary land tenure issued by the DENR or the National Commission on Indigenous Peoples (NCIP) (for the case of Indigenous Peoples).

Barrier analysis

65. The main barriers to the sustainable management of biodiversity and natural resources within the project site are:

Barrier 1: Lack of coordinated, harmonized land use plans that mainstream biodiversity and SLM and that are owned by local stakeholders (addressed by Component 1)

66. The DENR, DA, NCIP, and the LGUs operate within the same natural system and are all under the same LGU political jurisdiction. However, these agencies have different mandates and thus, correspondingly have different sets of key results areas. The **DENR** is the national agency that has administrative management jurisdiction over the forestlands, including protected areas and national parks. The riparian zones (riverbanks), serving as easements of the river systems that cut across the forestlands and the A&D areas, as defined by the Water Code of the Philippines or PD 1067, are technically forestlands; therefore, they are also under the jurisdiction of the DENR. In the same manner, the coastal zone and the inland side of the coastline up to 20 meters from the established average tidal line are also forestland, as prescribed in DENR Department Administrative Order No. 99-21 (DAO 99-21). Republic Act (RA) 7160, the Local Government Code of 1991 opened an avenue for **LGUs** to take a hands-on role in the management of their environment and natural resources. These resources include forests and forestlands, which are the key natural resources within the political jurisdiction of each LGU. LGUs are mandated to develop a Comprehensive Land Use Plan (CLUP). They are also mandated to develop a Forest Land Use Plan (FLUP). Moreover, the LGUs prepare their respective Integrated Coastal Management Plans (ICMPs) or Coastal Resources Management Plans (CRMPs), with technical support from the DENR, although this is not yet a legal mandate. In recent years, efforts have been undertaken by LGUs to harmonize and integrate the CLUPs and ICMPs: Abucay and Balanga both have integrated land and water use plans. The CLUPs and FLUPs of the seven target municipalities in Bataan Province all refer to biodiversity, forests and protected areas, to some extent. They set priorities for both protection and production. They specify uses that are allowed and not allowed in the various zones. For instance, Abucay CLUP mentions that all activities and uses within BNP shall be in accordance with the management zone of the BNP such as strict protection, sustainable management, and multiple-use zones. It also states that agroforestry, reforestation activities, and watershed rehabilitation activities are allowed uses in BNP.^[78] However, further coordination and alignment of these plans, including the investment plans and annual budgets of the CLUPs, and enhanced implementation and monitoring of the plans, is required. Furthermore, although the plans encourage sustainable agriculture, they contain little detail on how this will be implemented and how it will incorporate sustainable land management and biodiversity-friendly practices. Table 2 shows the status of the main plans in the seven target LGUs in northern Bataan Province.

Table 2: Status of main plans in the seven target LGUs

LGU	CLUP	Comprehensive Development Plan (CDP)	Forest Land Use Plan (FLUP)
1. Municipality of Orani	2018-2027	2019	2018-2022
2. Municipality of Abucay	2009-2019	2017-2023	2020-2024
3. Municipality of Bagac	2014-2028	2021-2026	not available
4. Municipality of Dinalupihan	2016-2025	2016-2022	2020
5. Municipality of Hermosa	2017-2030	2017-2023	not available
6. Municipality of Samal	2017-2027	2018-2024	2021-2025
7. Municipality of Morong	2017-2027	currently being updated	not available

67. For the case of the **DA**, their land-based agricultural interventions support the LGUs in their food production mandate and are applicable in areas outside the forestlands and protected areas. As for the **NCIP**, its mandates cover both the A&D areas and the forestlands, but are limited to Indigenous Peoples Ancestral Domain, which is covered by a separate plan called the Ancestral Domain Sustainable Development and Protection Plan (ADSDPP). For the case of the **Protected Areas** within the project site, the Protected Area Management Board (PAMB) prepares the Protected Area General Management Plan and Strategy (GMPS) under the guidance of DENR, which is applicable within the Protected Area or National Park. Additionally, **community organizations** under CBFMAs and PACBRMAs prepare their own Community Resource Management Plans (CRMPs). All these different plans do not have the same planning period, plan coverage, and effectivity. While there have been some efforts for coordination and harmonization, including through the Provincial Development and Physical Framework Plan (PDPFP), there is a need to further improve vertical and horizontal alignment.^[79]

68. Additionally, there is limited institutional coordination, capacity and awareness to mainstream biodiversity and sustainable land management (SLM) in land use planning, implementation and monitoring. Biodiversity and land degradation is not yet sufficiently mainstreamed into the plans of various sectors, starting with the land use frameworks of the LGUs, Community Resources Management Frameworks (CRMFs) of the CBFMA holders (upland farmers, fisherfolks, and coastal farmers), including the Indigenous Peoples (IP) plans, the LGU Tourism Plan, and other investment plans of key stakeholders within the uplands, the lowlands, and the coastal ecological zones. While the individual plans do refer to the Protected Areas, there is a need to further integrate PA needs, including budgets, into the LGUs' and communities' plans. The existing guidelines for biodiversity and SLM mainstreaming in CLUPs need to be brought down to the local level in an actionable, practical approach. Finally, Bataan does not have an existing cross-sectoral and multi-stakeholder platform with capacity on ecosystems management, which could help coordinate and align provincial efforts to promote biodiversity conservation and sustainable land management. The Bataan Sustainable Development Council, established in the early 2000s in the context of the Bataan Sustainable Development Strategy, could play such a role, but it needs to be revived and aligned with the MBSDMP and the PDPFP.

69. Another key challenge resides in the implementation of the plans. Often, these plans are produced with little to no buy-in from local stakeholders. They are often the products of consultants and lack detailed engagement of local stakeholders. Also, they are not always implemented due to insufficient resources, knowledge and awareness of the plans among stakeholders. As noted in the MBSDMP, decent laws and regulations addressing the Manila Bay pressures are available, but the implementation of these is currently inadequate.^[80] One of the key interventions, therefore, is to capacitate and empower LGUs and local communities to implement the plans/administrative orders.

70. Finally, the limited participation of local communities in the implementation of the plans is also due to insufficient tenurial arrangements, especially in open access forestlands, as highlighted above. This is coupled with inadequate involvement of local organizations and key stakeholders in environmental programs and endeavors. While many livelihood programs have been undertaken in the recent past, they often have limited reach (in scale and/or time) due to the limited capacity and resources of concerned agencies.

Barrier 2: Lack of accessible data on biodiversity and natural resources to support mainstreaming (addressed by Component 1)

71. A fair amount of research and data collection on the biodiversity and natural resources of Bataan has been produced by relevant research institutions and government agencies (see baseline sections). However, the data is not easily accessible for local stakeholders such as the LGUs. Addressing biodiversity/SLM concerns requires more science-based competencies and technical data that is accessible and comprehensible to users, which may be inadequate at the moment for the

LGUs. Data on High Conservation Value Areas (HCVAs), watershed hydrology as well as land degradation at the LGU level are insufficient. Detailed data on coastal resources including mangroves, seagrasses and coral reefs is also lacking, which stunts the ability to assess and monitor the status of biodiversity in Bataan.

Barrier 3: Limited knowledge and awareness among local stakeholders of biodiversity-friendly, sustainable land management practices and restoration opportunities (addressed by Component 2)

72. Local stakeholders have limited knowledge and awareness of viable sustainable practices and climate-resilient, biodiversity-friendly livelihood opportunities. While several demonstration farms and good practices exist, they are not brought to scale due to insufficient extension mechanisms and a lack of effective follow-up. There is a need to use marginal land and bring back degraded land into productivity in order to address the growing demand in agricultural land and reduce pressures on forest areas. However, local farmers and extension workers lack the knowledge, skills and resources to implement these restoration opportunities. A recent study conducted on the factors influencing the adoption of sustainable farming technology in mango farm cooperators in Bataan^[81] revealed the following factors which include: lack of awareness, availability of information and logistical support, innovation management, tolerable consequences, seamless collaboration, and general effectiveness. The study recommended that technology transfer projects and programs start with a session that focuses on how the participants acknowledge and recognize the need for what is being introduced to facilitate their use and sustainability. It also recommended that support groups and follow-throughs be established as socialization and feeling of belonging matters in sustaining the adoption of innovations being introduced.

Barrier 4: Limited financial incentives for biodiversity-friendly livelihoods and enterprises (addressed by Component 2)

73. While some livelihood support programs are being implemented by several agencies and industry associations (such as bamboo, cashew, coffee, ecotourism), they are still at a small scale and lack effective incentive mechanisms to sustain them in the long terms. Incentives and means (technical and financial) to embark on more sustainable practices are lacking. Current livelihood programs often focus on the production site but are not aligned and integrated with market demands. They lack adequate sustainability mechanisms after the life of the project. It has also been highlighted that the Ayta Magbukun Tribe in BNP has been living in poverty despite becoming a beneficiary of many intervention programs from various organizations, possibly due to a lack of concrete solutions to livelihood issues.^[82] COVID-19 has reduced livelihood opportunities for people in Bataan, especially those working in the tourism industry. There are also limited partnerships between POs and private sector actors in the province to collaborate on biodiversity conservation and sustainable management while providing sustainable livelihoods.

Barrier 5: Limited knowledge and awareness (addressed by Component 3)

74. As highlighted above, knowledge and good practices on sustainable integrated land and biodiversity management are often not shared with stakeholders at large, in support of scaling. There is limited opportunity and a lack of appropriate platforms to share and exchange learnings and good practices among stakeholders in Bataan. Furthermore, there has been inadequate awareness raising on the part of the LGUs on biodiversity and natural resource conservation, water pollution, and climate change impacts to their constituents within their jurisdiction. Finally, there is limited awareness among PA occupants and other resource users of their rights, of sustainable management practices, and of the biodiversity values in Bataan.

2) Baseline scenario and any associated baseline projects

75. The main baseline scenario and associated baseline projects and investments are summarized below. Please also refer to *Section 6.b Coordination with other relevant GEF-financed projects and other initiatives*.

A. Legal and institutional baseline

76. The four major **mandated government agencies** operating within the project site are (1) the Department of Environment and Natural Resources (DENR), (2) the Department of Agriculture (DA), (3) the National Commission on Indigenous Peoples (NCIP), and (4) the Department of Interior and Local Government (DILG).

77. The Presidential Decree 705 (PD 705) on the **Forestry Reform Code** of the Philippines mandates the DENR to be the primary government agency responsible for the conservation, management, development, and proper use of the country's environment and natural resources, specifically, of biodiversity (RA 7586) including those in reservation and watersheds and lands of the public domain, as may be provided for by law in order to ensure equitable and improved sharing of benefits derived therefrom for the welfare of the present and future generations of Filipinos. The protection of mangrove areas is the responsibility of concerned Regional Offices of the DENR in coordination with the Department of Agriculture (DA) as provided in the provisions of PD 705 of 1975.

78. DENR Administrative Order No. 2 of 2017, **Guidelines on Implementation of Sustainable Integrated Area Development (SIAD) Strategy**, aims to apply area-based interventions and lays the foundations for integrated watershed/river basin management. In line with this, the Provincial Environment and Natural Resources Office of Bataan is currently working on forming a **Watershed Management Council for Pinulot watershed**. A watershed characterization has been completed.

79. The **Wildlife Resources Conservation and Protection Act** or RA 9147 of 30 July 2001, prohibits any person who willfully and knowingly exploits wildlife resources in their habitats.

80. **Local Government Code of the Philippines**, Republic Act 7160 (RA 7160) of 1991, declares that it is the policy of the State that the territorial and political subdivisions of the State shall enjoy genuine and meaningful local autonomy to enable them to attain their fullest development as self-reliant communities and make them more effective partners in the attainment of national goals. Joint Memorandum Circular (JMC) No. 2021-1, dated August 11, 2021, entitled *Guidelines on the Preparation of Devolution Transition Plans of Local Government Units in Support of Full Devolution under Executive Order No. 138, Dated 01 June 2021* issued by the Department of Budget and Management (DBM) and Department of Interior and Local Government (DILG) provides guidelines for the LGUs' submission of Devolution Transition Plans (DTPs). Executive Order No. 138, dated June 1, 2021, gives National Government Agencies like the DENR a period of 120 days within which to submit a Devolution Transition Plan (DTP).

81. The **National Integrated Protected Areas System (NIPAS)** of 1992, amended in 2007 (R.A. 11038), states that LGUs within the protected area shall participate in its management through representation in the PAMB. Said LGUs may appropriate portions of their share from the annual internal revenue allotment and other income for use of the protected area.

82. **DENR DILG Joint Memorandum Circular 2003-21 (JMC 2003-21)**, is for the strengthening and Institutionalization of the DENR-DILG-LGU partnership on devolved and other forest management functions.

Box 6: Environment and Natural Resources functions devolved to LGUs^[83]

- ? Regulation of environmental impacts of small and medium-scale enterprises under Kalakalan 20 Law (Republic Act 6810)
- ? Establishment of greenbelts and tree parks under the Local Government Code (Republic Act 7160)
- ? Management of communal forests and watersheds (Republic Act 7160)
- ? Integrated social forestry projects (Republic Act 7160)
- ? Community-based forestry projects (Republic Act 7160)
- ? Regulation of fishing in municipal waters (Republic Act 7160 and Republic Act 8550)
- ? Regulation of minor mineral extraction like small-scale mining and certain scales of quarrying and sand and gravel gathering (Republic Act 7160)
- ? Regulation of nuisance and pollution under the Clean Air Act (Republic Act 8749)
- ? Solid waste management under the Ecological Solid Waste Management Act (Republic Act 9003)
- ? Anti-smoke belching program (Republic Act 8749)

83. **Indigenous Peoples Rights Act (IPRA)** or Republic Act 8371 (RA 8371), declares that the State shall recognize and promote all the rights of Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs), with the National Commission on Indigenous Peoples (NCIP) as the office to oversee the implementation of IPRA. The Department of Interior and Local Government (DILG) has issued DILG Memorandum Circular No. 2002-89 (MC No. 2002-89) for the strict implementation of IPRA, directing all Local Chief Executives (LCE)s, Sangguniang (municipal council) members, and other local officials to uphold and ensure the free exercise of the rights of ICCs/IPs in their respective jurisdictions as provided for in the IPRA (among others).

84. The **Department of Agriculture (DA)** is the agency responsible for the promotion of agricultural development by providing the policy framework, public investments, and support services needed for domestic and export-oriented business enterprises. The Department of Agriculture-Bureau of Soils and Water Management (DA-BSWM) has been involved in a number of notable studies and related initiatives on Soil and Water Conservation and Land Degradation, in partnership with the DENR-BMB, within the Province of Bataan, over the years.

85. **Executive Order 318** (EO 318) of June 9, 2004 on Promoting Sustainable Forest Management in the Philippines states that the development and management of the Philippine forests and forestlands including the coastal forests shall be for the highest and widest public benefit. It lays the foundations for Community-Based Forest Management (CBFM).^[84]

86. **Executive Order 263** (EO 263) of July 19, 1995, is the adoption of Community Based Forest Management Agreement (CBFMA) as a national strategy to ensure the sustainable development of the country's forestland resources and providing mechanisms for its implementation.^[85] DENR Department Administrative Order (DAO) 2004-29 provides for the revised rules and regulations for the implementation of EO 263 as the Community Based Forest Management Strategy (CBFMS), and for the CBFMAs that are for renewal, DENR Administrative Order No. 2004-29 (August 25, 2004), the Revised Rules and Regulations for the Implementation of Executive Order 263, otherwise known as the **Community-Based Forest Management Strategy**, requires a Certification Precondition (CP) from the NCIP, which involves the satisfaction of the Free, Prior and Informed Consent (FPIC) process from the concerned tribal group, facilitated by the NCIP.

87. **Clean Water Act** or RA 9275 is being implemented by the DENR Environment Management Bureau for water quality monitoring of waterbodies.

88. Presidential Decree 1067 (PD 1067) is the **Water Code of the Philippines**, specifying (among others), that the riparian zones of fresh waterbodies are set aside as easement, prohibiting any permanent structure therein (40m on both sides of the river for areas within the forestlands, 20m on both sides of the river for areas within the agricultural production areas, and 3m on both sides of the river for areas within the urban settlements).

89. DENR Department Administrative Order 99-21 (DAO 99-21), mandates the DENR Regional Directors to recover currently occupied river easement, in coordination with the concerned local chief executives (LCEs).^[86]

**Box 7: Operational Plan for the Manila Bay Coastal Strategy (2017-2022) and
Manila Bay Sustainable Development Master Plan (2020-2040)**

90. The 2008 and 2011 Supreme Court decisions on Manila Bay mandated and directed 13 government agencies to clean up, rehabilitate and preserve Manila Bay and restore and maintain its water to make it fit for swimming, skin-diving, and other forms of contact recreation.^[87] The DENR is the lead agency with the Manila Bay Coordinating Office (MBCO) as the Secretariat for the 13 Mandamus agencies.

91. The **Operational Plan for the Manila Bay Coastal Strategy (OPMBCS)** was initiated in 2004 and the present plan covers the period 2017-2022. This operational plan outlines the specific Programs, Activities, and Projects (PAPs) that will help to attain the defined goals and ultimately the shared vision of the stakeholders for Manila Bay. The OPMBCS has six outcome statements:

- 1) Liquid waste discharging into Manila Bay compliant with effluent (General Effluent Standard) and/or ambient water quality with the water quality guidelines;
- 2) Solid Waste ending up in Manila Bay reduced;
- 3) Houses, structures, construction and other encroachments along easement areas in rivers, waterways, esteros, lake and bay coastlines within the Manila Bay Region permanently removed;
- 4) Soil loss in Manila Bay watershed reduced;
- 5) Existing biodiversity areas within Manila Bay Region protected and conserved;
- 6) OPMBCS properly implemented.

92. The performance of the Mandamus Agencies to implement OPMBCS has been inadequate due to various reasons such as budget constraints, weak coordination, and failure to act in case of non-compliance.^[88] To break the deadlock, the President has recently taken initiative to bring the short-term actions of OPMBCS to a higher level. In February 2019, the President of the Philippines issued Administrative Order No. 16 expediting the rehabilitation and restoration of the coastal and marine ecosystem of the Manila Bay and creating the Manila Bay Task Force.

93. In response to the continuing debilitation of the Manila Bay Ecosystem, the National Economic and Development Authority (NEDA) in 2017 allocated funds for the development of the **Manila Bay Sustainable Development Master Plan (MBSDMP) 2040**, aiming to provide the needed guidance and framework for the holistic developmental activities in the Manila Bay. Six (6) Priority Measures were defined that will be undertaken to bridge the gaps between the current state of Manila Bay and the vision. These include initiatives that will:^[89]

- ? Comprehensively reduce pollution load that enters the bay;
- ? Improve solid waste management;
- ? Reduce exposure of people, livelihood, and properties to flooding (including rehabilitation of watershed areas in the Manila Bay Area);
- ? Conscientiously restore a healthy and vibrant natural habitats and ecosystem;
- ? Strategically boost fish biomass; and
- ? Actively promote responsible and sustainable tourism.

94. Extensive stakeholder consultations were conducted during the development of the MBSDMP, and several reports and assessments were produced, including a Manila Bay Situation Atlas.^[90] A working draft of Projects, Activities, and Programs (PAPs) was developed.^[91] The ownership of the implementation of the MBSDMP remains with the implementing institutions; hence, there is a need to incorporate the objectives and outputs of the MBSDMP into the sectoral plans and budgets as well as the local land use plans (CLUPs) of the LGUs. Some of the PAPs most relevant to the GEF-7 project include:

- ? **(RNH02) Locally-Managed Marine Protected Areas (LMMPA) Project.** The proposal covers the coastal LGUs in Bataan, with the objective to increase the number and size of Marine Protected Areas (MPAs) in Manila Bay by capacitating LGUs through trainings, learning-by-doing, as well as participation and engagement of communities in managing MPAs within their jurisdictions;
- ? **(REF08) Watershed Rehabilitation of Bataan.** The proposal intends to improve river flow patterns and reduce siltation, and ultimately reduce the incidence and severity of flooding;
- ? **(RNH04) Harmonized Rehabilitation, Restoration, and Management of Protected Habitats.** The program, which covers Manila Bay coastal LGUs, intends to develop a

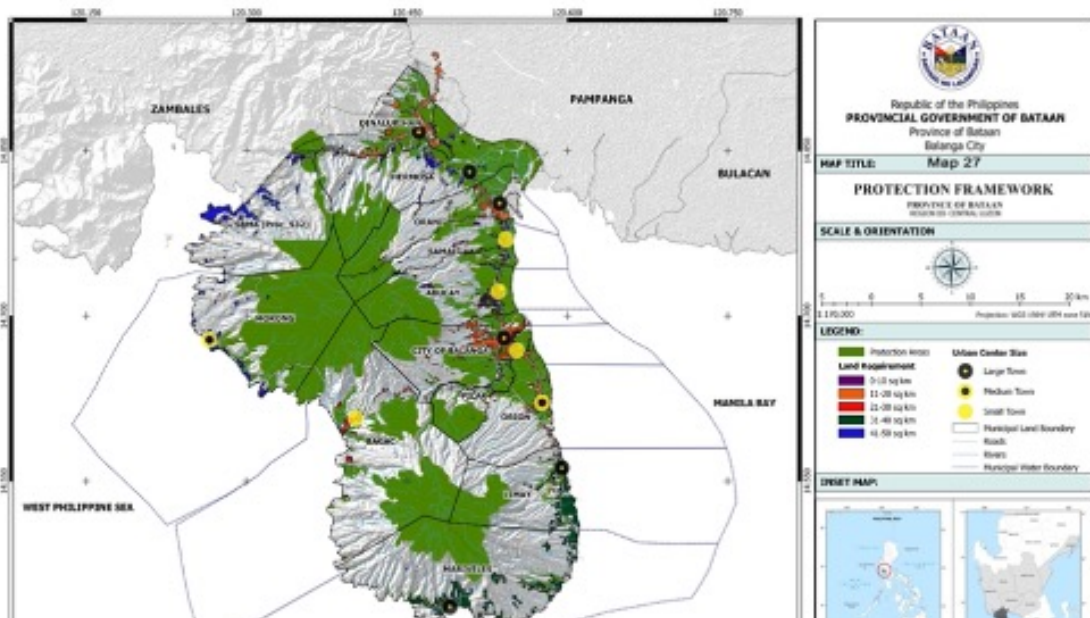
Box 8: Bataan Provincial Development and Physical Framework Plan (PDPFP) 2019 ? 2025.[93]

97. Bataan's PDPFP was developed in 2019. It aims to provide provincial planners with the bases for identifying specific programs, projects and activities (PPAs) towards achieving the development objectives and targets of the province. The PDPFP incorporates the Coastal Land- and Sea-Use Zoning Plan of the Province of Bataan Development Plan developed in 2006 with support from the UNDP-GEF PEMSEA project.[94] The PDPFP incorporates objectives for both production and protection areas. The Overall Physical Framework of the PDPFP states that the industrialization shall be contained in the northwestern portion of the province (Hermosa and Morong); in the Southern portion (Limay and Mariveles); including light to heavy industries located in Economic Zones, Freeport Area of Bataan, and Industrial Estates in Limay, Mariveles, Samal and portion of Subic Bay Freeport Zone being part of Morong. On the other hand, a province-wide approach on promotion shall be programmed for Small Medium Enterprise Development focusing on manufacturing industries. The plan states that Agricultural Production will be concentrated in the municipalities of Pilar, Orion, Abucay, Samal, Orani and Bagac, Hermosa and Dinalupihan, and the City of Balanga. Tourism Industry will be a priority in the western portion of the province comprising the municipalities of Bagac and Morong as well as the southeastern portion of Mariveles.

98. Regarding the Protected Areas (BNP and RPL), the PDPFP states that expansion should be given emphasis so as not to further encroach on the restricted areas. Buffer zones shall be established. To ensure forest protection, the DENR shall adopt/implement tenurial agreements for the occupants within timberlands. The local government with the support of the national government shall ensure the rehabilitation and physical protection of the degraded forest areas through reforestation programs and prevention of logging activities and shall be sustained and logistically supported. The LGUs shall not allow new applications for the conversion of swamp lands, mangrove and marshes to fishponds, and encourage mangrove reforestation along the coastal areas. In terms of coastal and marine resources, identified uses by the PDPFP are the following: (a) Coral Reef Restoration and Protection Zone, (b) Mangrove and Mudflat Protection Zone, (c) Municipal Fishing Zone, (d) Sanctuary Zone, (e) Seagrass Restoration and Protection Zone, (f) Shipping and Navigational Zone, and (g) Traditional Fishing Zone.

99. The objectives and targets for Environment and Natural Resources indicated in the PDPFP 2019-2025 are as follows: (i) Protect, conserve and rejuvenate forest resources, (ii) Increase river bank protection and stabilization, (iii) Preserve wildlife and marine mammals, (iv) Provide adequate supply of mangrove seedlings for planting activities, (v) Protect coastal and marine environment, (vi) Demonstrate proper upland farming technologies, (vii) Provide development assistance to CBMF/Informal Settler Families (ISF) areas, and (viii) Facilitate or guide them in identifying and implementing alternative source of livelihood. Additionally, the plan aims to enhance protective measures imposed and implemented by PAMB and Tenurial Users; and to maintain watersheds and other protected areas for continuous/steady supply of water for various purposes. Figure 12 below shows the Protection Framework of the PDPFP.

Figure 12: Protection Framework of Bataan's PDPFP



B. Government investments

100. The GEF-7 project builds on the following Government investments and initiatives (by DENR, DA, NCIP, LGUs and other agencies) in biodiversity conservation and sustainable land management in Bataan. First, the **two Protected Areas** within the project site have their respective Protected Areas Superintendent (PASu) with minimum support staff, which are DENR Staff. They act as the Secretariat to the Protected Area Management Board (PAMB). The PASu convenes the members of the PAMB in accordance with the set schedule, and the PASu facilitates the participatory review of the Protected Area General Plan and Strategy. The Presiding Officer of the PAMB is the DENR Regional Director, which is usually delegated to the concerned Provincial Environment and Natural Resource Officer (PENRO). The members of the PAMB come from the various stakeholders of the concerned Protected Area identified/designated by the DENR. The GEF-7 project directly builds on, and supports implementation of, the Bataan Natural Park (BNP) and Roosevelt Protected Landscape (RPL) Management Plans developed in 2021 (please refer to Box 2 and Box 3 for details).

101. Currently, there are **22 CBFMAs** situated within the Province of Bataan (see previous section for details). These include at least three (3) CBFM areas in the eastern side of the Bataan Province facing Manila Bay, particularly, along the municipalities of Limay, Orion, and Pilar which are being managed by the following People's Organizations (POs); a) Alangan Farmers Producers Association, Inc. (AFPAl), b) Bilolo Upland farmers Association, Inc. (BUFAI), and 3) Samahang Magsasaka sa Kagubatan ng Limay, Inc. (SAMASAKA). The GEF-7 will strengthen existing and may help establish new CBFMAs in Bataan.

102. The DENR is investing in its banner program, the **enhanced National Greening Program (eNGP)**, and its priority activities are: 1) rehabilitation of 1.2 million hectares of denuded forestlands by 2022; and 2) maintenance and protection of existing forests, which is a convergence initiative of DA-DAR^[95]-DENR, with DENR as the lead agency, pursuant to EO 23 and 26, both series of 2011. At the provincial level, the following interventions are some of the management programs being implemented under the NGP within the project area. They are implemented through the Peoples Organizations composed of upland farmers and fisherfolks (that include women) along the coastal and riparian zones: a) Watershed characterization; b) Mariveles watershed (reforestation and retrofitting of existing dam); c) Mt. Natib/Bataan Natural Park (reforestation); d) Establishment/enhancement of agroforestry farms; e) Construction of small water impounding structure (SWIS); f) 300-ha Reforestation scheme for 6 municipalities (Pilar-50ha, Morong-50ha, Bagac-50ha, Balanga City-50ha, Dinalupihan-50ha, and Hermosa-50ha); and g) 300-ha Agroforestry Scheme for 6 municipalities (Mariveles-50ha, Limay-50ha, Orion-50ha, Samal-50ha, Orani-50ha, and Abucay-50ha). The GEF-7 project will help strengthen governance and management practices in existing NGP areas within BNP and RPL.

103. Bataan's 'sustainable land use' category covers a total area of 704.51 sq.km. within the 11 municipalities and the City of Balanga. In this category, different government programs/projects are implemented such as Integrated Social Forestry and planting of agricultural crops to maintain the sustainability of the land. Reforestation projects with an approximate area of 7,002 hectares are introduced and implemented by DENR through contracts involving POs, NGOs and LGUs.^[96] Lessons learned from DENR in implementing these projects will be taken into account in the implementation.

104. In 2017, with the support of the UNDP GEF-5 SLM Project (see Section 6.b), the DA-BSWM developed Guidelines on **Mainstreaming of Sustainable Land Management (SLM) into the CLUP**. The Local Government Units (LGUs) are strategically and well-situated agents on the ground for the adoption and implementation of SLM. Mainstreaming in the CLUPs is the first step in institutionalizing SLM into LGUs' governance system. Mainstreaming of SLM in the CLUP of LGUs is expected to produce the following outcomes. This will ultimately help the LGUs address

soil erosion, nutrient depletion, loss of agricultural lands due to conversion, encroachment in protected forest lands, and mitigate impacts of drought.^[97] The GEF-7 project will use these guidelines to support SLM mainstreaming in the CLUPs and other plans of Bataan.

- ? SLM best practices and technology packages are automatically integrated and become part of the CLUP's prescription for sustainable agriculture and agroforestry development.
- ? SLM systematically receives funding allocation from the LGUs and national government agencies with a mandate on localizing SLM.
- ? Agriculture technicians and extension workers from LGUs are equipped with planning tools and technical knowledge and skills for the dissemination of SLM technologies at the municipal/city level.
- ? Selection of SLM measures is based on a scientific assessment that rationalizes local decision making and program investment.
- ? Land limitations and potentials for food production are fully accounted for in the allocation of different agriculture land uses.

105. Moreover, under the GEF-4 Biodiversity Partnerships Project (BPP), DENR-BMB, with support from UNDP, developed Procedures and Guidelines for **Mainstreaming Biodiversity in the CLUPs of LGUs** in 2017. Under this project, a report was also produced on **Integrating Biodiversity into ADSDPP Processes**.^[98] The guidelines are aimed at strengthening LGUs' capacity to mainstream biodiversity conservation in their policy making, planning, and program implementation in biodiversity rich areas within their jurisdiction. The GEF-7 project builds on these guidelines to support biodiversity mainstreaming in the CLUPs and other plans of Bataan. Mainstreaming biodiversity in the land use planning process, particularly in the Comprehensive Land Use Plan (CLUP) of LGUs, is expected to produce the following outcomes: ^[99]

- ? Biodiversity conservation is automatically integrated and becomes an inherent part of the CLUP of LGUs. The management of Protected Areas and identified potential KBAs, Critical Habitats, and other areas of high biodiversity values providing ecosystem services will be defined.
- ? Biodiversity conservation receives regular funding allocation from the LGUs while generating revenues from resource utilization and management.
- ? LGUs are provided with a user-friendly tool to systematically carry out biodiversity conservation in agriculture, agroforestry and aquatic and other production areas.
- ? CLUP and Protected Area Management Plan (PAMP) are systematically harmonized in the mainstreaming process. For LGUs without PAMP, available information on biodiversity is integrated in the zoning scheme of LGUs.
- ? Integration of biodiversity conservation in the local land use planning process is institutionalized thereby ensuring its sustainability.
- ? Local policy and decision-making councils of LGUs will know and appreciate the significance of biodiversity in local spatial and development planning.

Box 9: Biodiversity mainstreaming ? Lessons learned

The following lessons learned in environmental mainstreaming have been identified and taken into account in the design of the GEF-7 project: [\[100\]](#)

- ? A focus on specific issues, places and people provides a stronger incentive for linking poverty/environment issues than making a general, abstract case to ?mainstream?.
- ? The real needs, potentials, and action have tended to be at LGU level, where the decisions can be made, the authority to act now lies, communities are demanding change, and the actors can work together in practical ways.
- ? Although local action is key, the national government as well as the LGUs have a critical role in providing the proper and conducive planning and financial environment for unleashing local governance potentials, and scaling up learnings at the national level.

The GEF STAP advisory document ?Mainstreaming biodiversity in Practice? highlighted the following determinants of mainstreaming success, which were also taken into account during the GEF-7 project development: [\[101\]](#)

- ? Awareness and political will from the highest levels, providing support for implementation
- ? A coherent set of economic and regulatory tools and incentives that promote and reward integration and added value, while discouraging inappropriate behaviours
- ? Sustained behavioural change within individuals, institutions, and society, and in both public and private domains
- ? Alignment of mainstreaming projects with government priorities, working across multiple sectors
- ? Effective communication with stakeholders to make the case for biodiversity
- ? Positive, incremental and continuous behavioural change

Additionally, strong capacity at individual and institutional levels, and effective national delivery systems for extension services to farmers and local communities is a key determinant of effective responses to mainstreaming processes.

From an initial assessment by the project design team in the context of Bataan, biodiversity mainstreaming involves, in particular, (1) incorporation of PA objectives and biodiversity-friendly livelihoods in and around PAs/KBAs, including conservation of threatened species; (2) protection, restoration and sustainable management of forests; (3) the conservation and sustainable use of coastal biodiversity such as mangroves, coral reefs, seagrasses, mudflats that are important for migratory birds, fisheries, turtle nesting sites; (4) preservation of ecosystems and their goods and services, including in agro-ecosystems, highlighting the Ridge-to-Reef connectivity of the ecosystems, and (5) the integration of biodiversity and sustainable land management into policies, plans and strategies.

106. Finally, the UNDP-GEF Biodiversity Partnerships Project (BPP) project assisted in the development of a **Revised Tourism Guidebook for Local Government Units** (2017), which incorporates biodiversity. [\[102\]](#) DENR is the chair of the Regional Ecotourism Committee in Region 3, and together with the Department of Tourism (DOT) it is responsible for ensuring that sustainable and responsible ecotourism is in place. Bataan Province does not yet have a finalized Provincial Ecotourism Plan. Some of the protected areas in the province have their own respective ecotourism plans which are developed and led by DENR. Several LGUs and POs also have developed an ecotourism plan/ecotourism business plan. The GEF-7 will use the existing guidebook as well as the already developed plans to promote sustainable, biodiversity-friendly, and community-based ecotourism and agro-ecotourism in Bataan.

107. In 2006, with support from the PEMSEA project, the Bataan Coastal Care Foundation, Inc. (BCCFI) and the Province of Bataan developed a **Coastal Land and Sea Use Zoning Plan** of the Province of Bataan. As mentioned above, this was later integrated into the Physical Framework Plan of the province. The City of Balanga and the Municipality of Abucay both developed an Integrated/ Comprehensive Land and Water Use Plan, integrating coastal land use planning into the Comprehensive Land Use Plan (CLUP) in a ridge-to-reef approach. These plans ended in 2020 and are currently being updated. A recommendation based on the experiences from the planning

process conducted in Balanga and Abucay is that consultations should take place at the barangay level in order to closely engage local stakeholders and get their buy-in.^[103] Additionally, a State of the Coasts of Bataan Province was published in 2017.^[104] Despite these efforts, the province's coastal resources management (CRM) projects have been sporadic and intermittent. A recent review of Bataan's CRM programs^[105] has highlighted that there are too few conservation initiatives as well as a scarcity of baseline data related to conservation of coastal resources. The GEF-7 project builds on these significant achievements by previous projects and plans in promoting Integrated Coastal Management (ICM) in Bataan at the provincial and LGU levels. It aims to support implementation and replication of these plans.

108. Related to this, two bills are currently pending at the Lower House: The **National Land Use Act**, and the **Integrated Coastal Management Act**.^[106] If passed, these bills would provide a mandate for LGUs to further integrate their plans, which would provide further incentive for harmonization and ICM mainstreaming in the CLUPs of Bataan. The **Bataan Sustainable Development Strategy** of 2006 aims at maintaining and sustaining the integrity of resources, habitats and biodiversity. This plan will need updating, including the incorporation of Post COVID-19 recovery. Other relevant plans include the general development plans of the central government, the region and province, the sectoral plans on transport, energy and agriculture, the Comprehensive Development Plans (CDPs), and the Annual Investment Plans (AIPs) of the LGUs. All these plans will have impacts on the conditions of Manila Bay catchment area; the GEF-7 project, thus, aims to enhance these plans and their implementation.

Box 10: Biodiversity-Friendly Enterprises (BDFEs) and Biodiversity-Friendly Agricultural Practices (BDFAPs)

109. Two relevant Administrative Orders have recently been developed and constitute an important baseline and opportunity for the GEF-7 project. The first is the DENR Administrative Order (DAO) on the Development and Recognition of **Biodiversity-Friendly Enterprises (BDFE)**, approved in May 2021. The guidelines established by this DAO aim to provide the enabling environment to encourage upland and coastal communities, with priority on communities with tenurial instruments and indigenous peoples, to implement and demonstrate economic activities that are ecologically, socially and culturally responsible. Through the DAO, DENR will allot up to Php 1M (USD 20,000) as financial assistance to eligible enterprises upon approval of their proposal and requirements and are recognized as BDFE according to standards to be established by DENR. This concept is relatively new and the information on the guidance and implementing rules and regulations to be recognized as legitimate BDFE has not yet been developed and cascaded down to the LGUs and communities. While BMB prioritizes Peoples' Organizations within Protected Areas, they also encourage the use of the BDFE framework for areas outside of PAs. The DAO defines BDFEs as an enterprise that involves the utilization of resources leaning towards sustainability and further enhancement of resources in which the community will have an increased appreciation of biodiversity through its ecosystem services. BDFE categories include enterprises in the areas of (i) Sustainable Agriculture, (ii) Sustainable Fisheries, (iii) Sustainable Forestry, (iv) Manufacturing (such as dried fish and food processing), and (v) Services (such as agri-tourism and community-based ecotourism).

110. The second is the Administrative Order on Mainstreaming **Biodiversity-Friendly Agricultural Practices (BDFAP)** in and around Protected Areas and Promoting the same in wider Agricultural Landscapes. This is a joint Administrative Order by DENR, DA, DAR, and DILG under the National Convergence Initiative. The Administrative Order aims to promote agricultural development that is compatible with the conservation of the ecosystem in areas where agricultural and fisheries activities are carried out. It also aims to initiate/strengthen the institutionalization of BDFAPs in multiple use and buffer zones of protected areas. The Administrative Order in its current form does not include a financial incentive mechanism. However, it states that the DA and the DENR shall formulate criteria for the provision of incentives including recognition for farmers, fishers, and other stakeholders observing BDFAP. The provision of capacity building and technical assistance is also foreseen. The Draft Joint Administrative Order defines BDFAPs as within the context of Protected Areas (PAs) and Key Biodiversity Areas (KBAs), are the practices that use traditional and modern technologies, and agriculture, fishery, agroforestry and multi-cropping management techniques to contribute in the maintenance of ecosystem resilience; protect biodiversity reserves and sanctuaries including agriculture-important species, habitat networks and biological corridors; facilitate regeneration of natural habitat; protect watersheds and wild habitat against conversion to other uses; using low-input or less environmentally damaging systems that reduce soil erosion and water run-off; and adopt the principles of sustainable livestock and poultry production and use of water, and fishery resources. These practices also aim to increase soil fertility and productivity, balance insect population and reduce air, soil and water pollution that affect important habitats of plants and animals.

111. Related to this, BSWM, BFAR and BMB have developed joint guidelines on **Sloping Agricultural Land Technology (SALT)**. It is a widely accepted technology that is also a biodiversity-friendly agricultural practice. The sustainable agricultural and natural resource management practices under SALT include, among others:

- ? Agricultural cultivation according to the gradients of slopes.
- ? Promotion and cultivation of indigenous/native plants, livestock, aquaculture/fish species and indigenous practices.
- ? Diversified farming systems: To the extent possible, diversified farming systems in identified multiple use zones and buffer zones of PAs and in KBAs shall be encouraged as against mono-cropping systems.
- ? Organic Agriculture
- ? Conservation Agriculture: Whenever planting in slopes is practiced, the farmer shall observe soil conservation measures such as: Contouring, Contour strip cropping, Buffer strip cropping or hedgerows, Cover cropping, Improved fallow or alternate strip arrangement, Zero tillage, Crop rotation, and Multiple cropping systems.

113. The Government of the Netherlands is funding a project on reducing exposure to coastal flooding in Manila Bay. The project will conduct a Comprehensive Assessment of Coastal and Riverine Hydrodynamics and Flood Protection Structures in Manila Bay Area, which may cover some municipalities in Bataan. Furthermore, DENR is implementing the Save Our Watershed project under its Forest Land Management project. Finally, a team from the University of the Philippines Los Baños (UPLB) is currently piloting a **Watershed Ecosystem Approach to Integrated Land Use Planning** in pilot sites in Laguna Province with funding support from the Department of Science and Technology (DOST). This will involve a review of technical guidelines on watershed characterization and planning and their integration with local plans including CLUPs and FLUPs. The GEF-7 project will coordinate with this project for the harmonization of plans under Component 1.

114. The University of the Philippines Marine Science Institute (UPMSI) has conducted research on marine and coastal resources and their management. It is maintaining a **Marine Protected Area (MPA) support network and database**, covering both nationally and locally protected MPAs. The GEF-7 builds on the data and resource inventories developed by UPMSI of the coastal resources of Bataan. DOST/PCIEERD is implementing the Integrated Mapping, Monitoring, Modelling, and Management System for Manila Bay and Linked Environments (**IM4ManilaBay**) Program. This program was conceptualized in response to the call to the rehabilitation of Manila Bay in 2019. The four projects under this program seek to provide information for rehabilitation and management of the Manila Bay through water quality monitoring and mapping, hydrodynamic and hydrologic modelling, and dredge materials and solid waste management.

115. Related to the forest and biodiversity protection system, DENR BMB is currently implementing the **LAWIN Forest and Biodiversity Protection System** as a National Strategy for Forest Biodiversity in the Country, for the strengthening of forest and biodiversity protection through the application of a science-based and technology-aided forest protection system that is relevant to forest and biodiversity management, which also ensures transparency, accountability, and efficiency in forest and biodiversity protection and conservation activities (DENR Administrative Order 2018-21).^[107] LAWIN integrates a science-based assessment, user-friendly and innovative information and communication technology in assessing and monitoring the status of the forest. It can assist in environmental monitoring especially in the forest, and biodiversity of high conservation value areas. LAWIN is a forest and biodiversity protection system that enables and enhances regular assessment and monitoring of what is happening in the forest by making it easy, convenient, and quick for forest patrollers in identifying, assessing, and reporting activities in the forest that are potentially destructive, their occurrences and extent, and subsequent monitoring of what remedial measures, if any, have been done to address these practices and occurrences. The GEF-7 project will promote and build local capacity on the use of LAWIN and its integration with other monitoring systems, to enhance data and knowledge on the status of and threats to the forests of Bataan and inform planning and decision-making.

116. Other **monitoring tools** used by DENR include the Biodiversity Assessment and Monitoring System (BAMS) for Terrestrial Ecosystems and the Socio-Economic Assessment and Monitoring System (SEAMS). The successful piloting of the Spatial Monitoring and Reporting Tool (SMART) at the Bataan and Masinloc Protected Areas demonstrated that the software could enhance the BMS through enabling the digital capture, analysis, reporting and sharing of data.^[108] One of the activities of the UNDP-GEF Project Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) was the establishment of an environmental database management system and geographic information system for Manila Bay. Among the issues identified by the project with respect to Manila Bay are the lack of a systematic collection and storing of data, inefficient and ineffective provision of data for management and decision-making, and other related issues and problems including timeliness and reliability of data. To help address these issues, the project developed an environmental database management system for Manila Bay. This

database was developed using the **Integrated Information Management System (IIMS)** of PEMSEA. IIMS is a tool that provides guidance in data collection, collation and standardization so that these data will be stored uniformly in a systematic and orderly manner. IIMS not only stores and generates data but also serves as a decision-support system that will help managers and decision-makers in the identification and assessment of appropriate actions.^[109] The GEF-7 will closely build upon these existing tools and management systems for the assessments and monitoring activities under Component 1.

117. **Marine turtle conservation** can be seen as one of the success stories of conservation in Bataan. The DENR-Protected Area Wildlife Bureau (PAWB)-Pawikan Conservation Project gathered substantial data and information, in collaboration with DENR Regional Office, LGUs, non-government organizations (NGOs), and resort owners. During the project life, it was observed that there was an increase in the number of Olive Ridley complete nests and eggs produced in Morong and Bagac, Bataan and in San Antonio, Zambales from August 2004 to February 2009. A partnership was established between BMB and Bantay Pawikan Inc., and this PO was also a beneficiary of the UNDP-GEF Small Grants Programme in the early 2000s.^[110] The Pawikan Conservation Center with a hatchery was established in Morong, and regular monitoring is carried out by the DENR. For the 1st quarter of 2021, they were able to collect 2,880 pawikan (sea turtle) eggs. There are plans to establish a marine turtle conservation and management network within Manila Bay. Initial meetings have been organized between the provinces of Cavite, Bataan and Zambales.^[111] BMB also conducts an **Annual Waterfowl Census**. The GEF-7 project will build on these existing efforts for marine turtle and migratory bird monitoring and conservation.

118. The **Integrated Environmental Monitoring Program** for Manila Bay was developed in 2006 through the assistance of GEF/UNDP/IMO Regional Program, PEMSEA (see Section 6.b). The implementation of two major components was piloted, namely: 1) water/sediment quality monitoring, and 2) bio-ecological resources (fisheries, mangroves, coral reefs, planktons, seagrass, benthos, mudflats, and birds). Over the years of continuing the program, trends were established to determine whether meeting the Class SB (fit for contact recreation and fishing) prescription of the Supreme Court's continuing mandamus is possible given the exponential exceedances, in general, from quality standards set for Class SB.^[112] In the latest report made available (2019) from Environmental Management Bureau Region (EMB)-Region 3, four (4) out of 14 stations along Limay-Mariveles fall under Class SB. The project builds on these previous efforts to monitor and improve water quality in Bataan Province and aims to scale up capacity for water quality monitoring in Bataan.

Box 11: Existing livelihood support programs in Bataan

119. Over the years, there have been several initiatives on biodiversity, sustainable agriculture, and livelihood support by the DENR-BMB, DA-BSWM, LGUs and other partners in Bataan Province, which have the potential for upscaling under this project. The main initiatives are summarized below. The GEF-7 project will closely build upon these initiatives under the various Outputs of Component 2, with the aim of scaling up these practices and incorporating biodiversity and SLM concerns.

Ecotourism

- a) Bataan is strongly positioning itself with its ecotourism opportunities, mostly within and around BNP and RPL. Ecotourism activities are implemented in almost all of the municipalities within the protected area composed of Hermosa, Orani, Samal, Abucay, Balanga, Pilar, Orion, Limay, and Mariveles. Agri-tourism is being promoted in Orani and Dinalupihan.
- b) The Department of Tourism (DOT) is implementing the Transforming Communities towards Resilient, Inclusive and Sustainable Tourism (TouRIST) Program. One of DOT's prime showcases in terms of their role on responsible tourism in Bataan is focused on the Balanga Wetland and Nature Park (BWNP) in Balanga City and the turtle nesting site in Morong. DOT has no regulatory power but rather an accrediting/certifying function on tourist areas/destinations and services, i.e., resort operation. LGUs and DENR are responsible for enforcing regulations that affect the ecotourism areas.
- c) Bird watching activities in BWNP.
- d) The resort operators are organized as an association in Bagac, Mariveles and Morong.
- e) Ecotourism sites include i) Pilis Falls within Bataan Natural Park, Morong, Bataan; ii) Bataan Natural Park, Samal, Bataan; and (iii) identification of mangrove areas as ecotourism sites, among others.[\[113\]](#)
- f) Currently, the barangay Camachile in Orion has a 'Mangrove Ecotourism Project' in collaboration with the LGU of Orion and Samahan ng Mandaragat ng Camachile (SAMACA, Inc.) which was started in March 2019.[\[114\]](#)

Soil and water conservation

- a) In 2013-2015, the DA-BSWM and DENR-BMB undertook rehabilitation of **micro-watersheds** of existing small water impounding systems (SWIPs) in Nueva Ecija, Rizal, Bulacan, and Bataan provinces. Particularly, within the proposed project site, the DA-BSWM established a 3-ha demonstration area on the use of appropriate soil and water conservation measures within the micro-watersheds in the uplands of Bgy. Payagan, Dinalupihan, Bataan. Within the said demonstration area, the resultant soil quality was monitored semi-annually, and the resultant water quality monitored quarterly (DA-BSWM, 2015). Dinalupihan was identified as a pilot site since it had reports of flooding in recent years specifically 2011 and 2013. BSWM identified six (6) barangays: Bayan-bayan, Maligaya, Pagalanggang, Pita, Sapang balas and Tubo-tubo.
- b) Technological Demonstration Farms using appropriate soil and water conservation measures (such as, Sloping Agriculture Land Technology or SALT) were set up, including in Bgy. Liyang in Pilar municipality (4 ha).
- c) Techno-demo and guided farm, upland aquaculture, upland organic agriculture, fish and food processing in Balanga, Orani, Orion, Limay, Abucay, Hermosa. Mainly they use the SALT technology in the upland areas. BSWM plans to replicate these in Bagac and one other LGU. Two additional POs (CBFM in Limay) will also be given livelihood assistance.
- d) The Bataan Peninsula State University (BPSU) conducted a study on Water Management for Organic-Based Crops Production in Sloping Production Areas while they also promote upland organic agriculture, especially in their campus in Abucay.

Reforestation, restoration, agroforestry

- a) The provincial government has a project called '**1 Million Trees for Bataan**' (1M41B) which envisions to encourage everyone to plant mangroves and other types of trees in the 26 selected planting areas in the province of Bataan. Barangay Camachile is one of which.[\[115\]](#)
- b) The DENR Regional Office here has partnered with the Star 8 Green Technology Corporation (GTC) to boost the development and protection of established plantations in Bataan under the National Greening Program (NGP). This is an agroforestry approach to include coconuts, cashew

C. Donor-funded and private initiatives

121. The Center for Conservation Innovation (CCI) together with other partners is currently implementing the USAID-funded, USD 22 million **Philippines Sustainable Interventions for Biodiversity, Oceans, and Landscapes (SIBOL) project (2020-2025)**.^[118] The project aims to improve the natural resource governance of biodiversity, oceans, and landscapes in the Philippines. SIBOL has set up four sites in key protected landscapes and seascapes in the Philippines. While these sites do not overlap with the GEF-7 project site, the Bataan project can significantly benefit from the outcomes of the USAID SIBOL project. In particular, the SIBOL project will develop a toolkit and related training materials for identifying high conservation value areas (HCVAs), which can also be used in Bataan. The SIBOL project will also develop capacity on the Biodiversity Assessment and Monitoring System (BAMS) and the Socio-Economic Assessment and Monitoring System (SEAMS). A digital version of these two systems (E-BAMS and E-SEAMS) is currently being developed.

122. From 2011-2013, the DA-BSWM was involved in the FAO project on **Local Land Degradation (LADA)**.^[119] The regional land degradation analyses conducted in 2013 under this project included Region III, where the GEF-7 project site is located. The project piloted local land degradation assessments corresponding to different landscape scenarios to come up with a comprehensive understanding of land degradation status, direct and indirect causes, impacts and responses. Wetlands were also included in the LADA project, guided by the 2011-2016 National Wetlands Action Plan for the Philippines, which promotes and implements strategies and actions for the conservation and wise use of the country's wetlands. The LADA report incorporates urgent concerns such as biodiversity conservation and climate change mitigation and adaptation, and it provides a framework of strategies and actions for all concerned sectors of the society including government agencies, non-government organizations, business sector, small communities, and indigenous peoples. The GEF-7 project will build on this framework for the local land degradation assessments conducted under Component 1.

123. FAO is implementing a EUR 6.2 million global project on **The Paris Agreement in action: upscaling forest and landscape restoration to achieve nationally determined contributions (2018-2022)**, funded by the German International Climate Initiative (IKI). Under this project, the partner organization Society of Filipino Foresters, Inc. (SFFI) will implement activities related to forest and landscape restoration with three (3) CBFM associations of Bataan located in the municipalities of Limay and Orion. These project sites are located in the southern portion of Bataan within the Mariveles Watershed area. Project activities will be focused on the restoration of around 600 hectares using Assisted Natural Regeneration (ANR) and establishment of fire breaks for protection. Planting of cash crops, perennial crops, high-value crops within the established greenbreaks, along with livelihood opportunities for the local people, is also part of the project. The GEF-7 project can benefit from the experiences of this project and replicate successful approaches in other CBFMAs in Bataan.

124. FAO is implementing two Technical Cooperation Projects (TCPs) that the GEF-7 project can build upon. The first one, "Support to development of Geographical Indications (GI) in the Philippines as instrument of sustainable rural development" was implemented from 2018-2021. It aimed to improve the incomes of smallholder farmers through the development of GI value chains, improved market access, and increased recognition of Philippines' GI by consumers in relevant markets, while also promoting environmental and social sustainability. Pilot products were the Cordillera Heirloom Rice and the Kulaman Coffee in Sultan Kudarat. The second one, "Support to enhancing farm tourism in the Philippines for inclusive rural development" (2020-2022), aims to build the capacity of public and private stakeholders to set up and implement sustainable farm tourism enterprises to help achieve agricultural diversification, sustainable agricultural production and inclusive agro-business development. Farm tourism operators in Bataan could benefit from the

regionwide capacity building activities organized by the project, and the project will benefit from the capacity and methodologies developed by this project.

125. Furthermore, FAO is implementing the project "Enhancing community resilience to climate change mountain watersheds" (2020-2023). The project will implement risk-based watershed management in forest and land management through sustainable agriculture in Benguet and Ifugao Provinces. The GEF-7 project will benefit from the technical outputs of this project with regard to sustainable agriculture and watershed management.

126. The **National REDD+ system for the Philippines** project (2012-2017), supported by GIZ, worked with DENR and other partners to set up a national register and REDD+ Readiness structures to steer and monitor the avoidance of deforestation. It also developed initiatives in support of incentives for ecosystem services, particularly REDD+. In addition, the UNDP BMB project also had components and output related to incentive systems, such as one output related to the development of a Voluntary Forest Certification System. Discussions are ongoing between DTI's Philippine Accreditation Bureau and DENR's Forest Management Bureau to develop a Carbon Accounting, Verification, and Certification System (CAVCS).^[120] Lessons from early REDD+ experiences in the Philippines^[121] have shown that the inclusion of co-benefits is seen as one of the possible solutions to the problem of sustainability of REDD+. These co-benefits may appear in the form of socio-economic and livelihood benefits, biodiversity conservation, and improvement of ecosystem services such as watershed protection and reduced soil erosion. Another study^[122] points out that income from carbon credits was not sufficient to recover the cost of tree planting (using standard DENR costs). The study, therefore, recommends that carbon credits be used as a supplemental source of income for farmers and project developers. The GEF-7 project will benefit from these experiences as well as the carbon verification and certification system for its activity to pilot a carbon incentive scheme under Component 2.

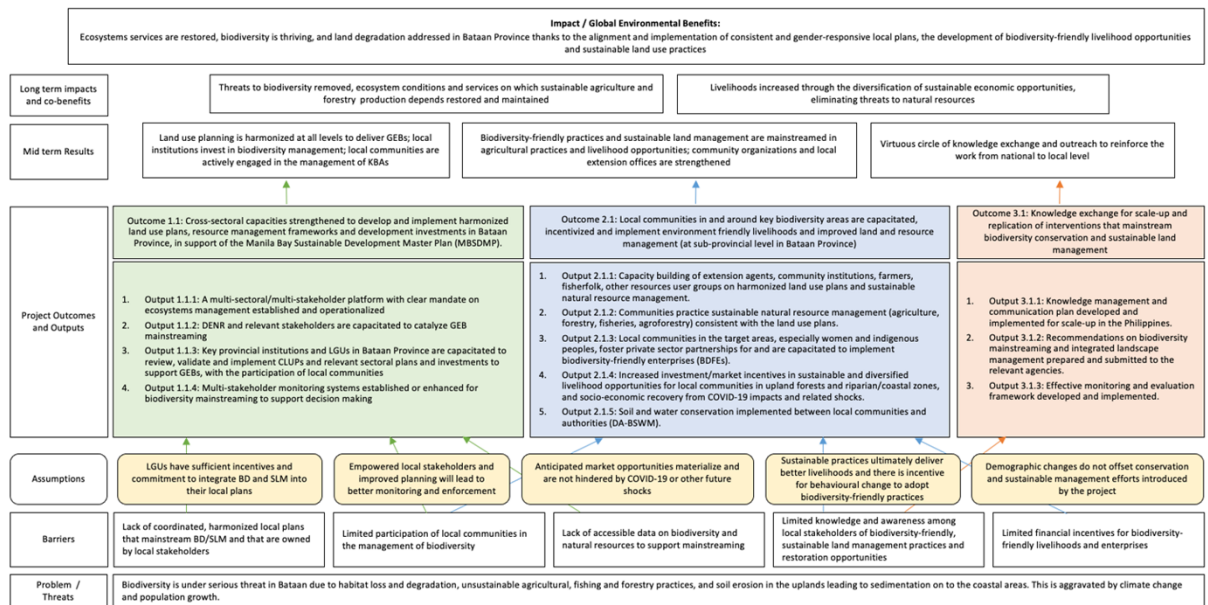
127. The **Bataan Coastal Care Foundation, Inc. (BCCFI)** is a consortium of corporations and organizations working with the provincial government of Bataan to support implementation of the Bataan Sustainable Development Strategy. Its membership comprises of 18 private companies operating in the province. The BCCFI has been active since February 2000 in environmental protection activities such as providing resources, skills, equipment, and facilities in support of integrated coastal management (ICM) program activities and events and acting as a catalyst to increase awareness and promote community and corporate participation in coastal resources management. However, BCCFI has experienced organizational and financial setbacks due to the restrictions of COVID-19 and is not currently active.

3) Proposed alternative scenario with a brief description of expected outcomes and components of the project and the project's Theory of Change

Theory of Change

128. The project's Theory of Change is shown in Figure 13 below. The expected impact of the project is that ecosystem services are restored, biodiversity is thriving, and land degradation addressed in Bataan Province, through the alignment and implementation of consistent and gender-responsive local plans, and the development of biodiversity-friendly livelihood opportunities and sustainable land use practices. Three inter-connected components are focused on (i) strengthening of cross-sectoral capacities to develop and implement harmonized land use plans, investment plans, and resource management frameworks under Component 1; (ii) implementation of biodiversity-friendly interventions, incentive mechanisms for restoration and sustainable use, and sustainable land management (SLM) in a ridge-to-reef approach under Component 2; and (iii) knowledge management and scale-up of project lessons in Component 3.

Figure 13: Theory of Change



129. Under Component 1 (*Land use planning, supporting biodiversity and sustainable land management (SLM) enhanced at all levels*), the project will establish and operationalize a multi-sectoral/multi-stakeholder platform with capacity on ecosystems management, to support mainstreaming of biodiversity and SLM across sectors as well as landscapes and seascapes. It will help build the capacity of DENR and relevant stakeholders for GEB mainstreaming and implementation of the OPMBCS by building capacity on biodiversity and land degradation assessments and coastal management strategies. It will also capacitate key provincial institutions and LGUs in Bataan to review, validate and implement Comprehensive Land Use Plans (CLUPs) and other relevant plans and investments to support GEBs, with the participation of local communities. Finally, monitoring systems will be enhanced to improve the quality of data on biodiversity and SLM to support decision making and mainstreaming.

130. Under Component 2 (*Implementation of natural resource management and sustainable livelihoods to deliver global environmental benefits in and around key biodiversity areas (KBAs) at sub-provincial level in Bataan Province*), the project will enable project partners and key stakeholders to fully participate in the implementation of plans, in practising sustainable natural resources management, and in scaling-up of biodiversity-friendly agricultural practices/enterprises in and around the Protected Areas and other ecologically important areas, including the coastal areas and riparian zones (i.e., from ridge to reef). Incentive mechanisms, partnerships and sustainable livelihood opportunities will be established and scaled up for Indigenous Peoples, local communities, and Peoples' Organizations (POs) that depend on biodiversity and natural resources in the target areas. Opportunities for COVID-19 recovery and green jobs will be realized.

131. Under Component 3 (*Monitoring and evaluation and knowledge management*), the project will support scaling of project interventions through the enhancement of knowledge, understanding, attitude, and practices of targeted sectors and key stakeholders on biodiversity conservation and management, including soil and water conservation measures, biodiversity-friendly enterprises and other incentive mechanisms, and sharing of good practices. Project lessons will be shared within Bataan Province, within Region III, and at the national level, as well as with other GEF-supported projects and with the other river basins/watersheds in the Manila Bay and in the country. Policy recommendations will be formulated on biodiversity mainstreaming and integrated landscape management prepared.

132. Through the GEF-7 technical assistance and investments, this project will address existing barriers to sustainable biodiversity and natural resources management within Bataan Province to Manila Bay. It will contribute to the advancement of biodiversity and SLM mainstreaming into local plans and support their implementation through incentive mechanisms and technical approaches, such as the BDFEs and BDFAPs. The government implementing agency (DENR-BMB), being the recognized leader in biodiversity and natural resources conservation and management, with additional technical inputs, will take the strong lead in moving this project forward with its partner mandated agency, the DA-BSWM, which is the recognized leader in addressing land degradation, the Provincial Government of Bataan and local government units (LGUs), which have the jurisdiction over the project site.

133. With this additional technical guidance, capacity development and investments, the government implementing agency, with its partner mandated agencies will be able to encourage strong participation and engagement of key stakeholders in successfully addressing the barriers. These stakeholders include local governments, upland farmers occupying forestlands, Indigenous Peoples, women, Peoples' Organizations, private sector, educational institutions/academe, fisherfolks, and members of PA management boards. This will ultimately lead towards improving and changing production practices within forestlands and the degraded agricultural production areas along the riparian zones, to be more biodiversity-positive and regenerative. As an appropriate way forward in successfully addressing the major barriers in arresting ongoing land degradation, as well as ensuring the conservation of biodiversity and natural resources, the project will adopt the ecosystems-based approach supporting biodiversity and SLM mainstreaming from ridge to reef.

134. The key innovations and incrementalities of the project include the following:

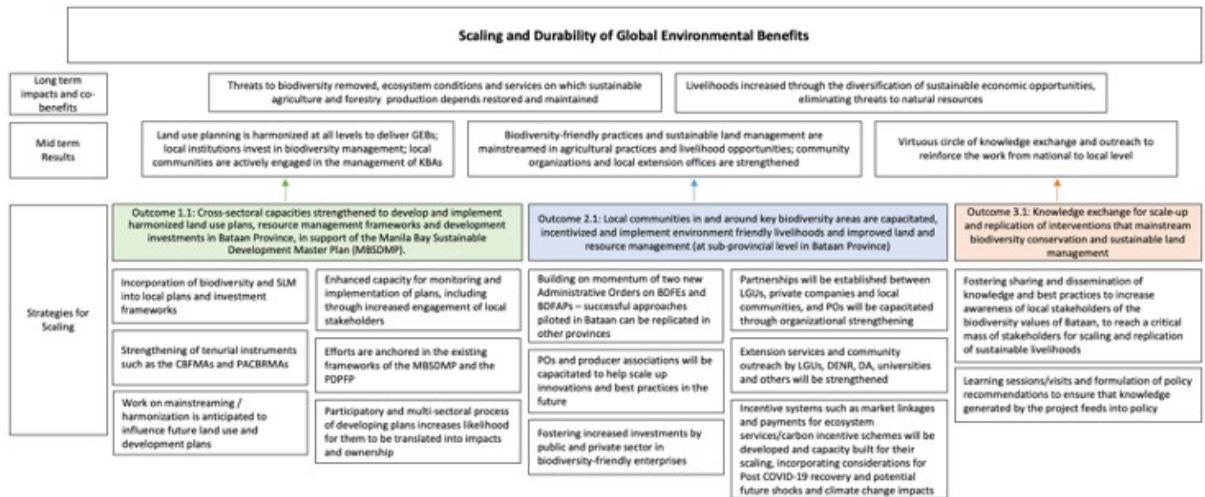
- ? Harmonization of local plans, including alignment with the Manila Bay Sustainable Development Master Plan (MBSDMP), mainstreaming of biodiversity/SLM into these local plans, as well as supporting implementation of existing plans in a participatory process by building local capacity, ownership and awareness.
- ? Operationalization of two guidelines on biodiversity-friendly enterprises (BDFEs) which has been recently approved, and biodiversity-friendly agricultural practices (BDFAPs) which is currently undergoing review and is expected to be approved soon.
- ? Strengthened capacities of local institutions, including LGUs and POs to support and scale up implementation of biodiversity-friendly practices, including through market and other incentives.
- ? Increased awareness among local stakeholders of the biodiversity values of Bataan.
- ? Enhanced data and knowledge on biodiversity and sustainable land management in the project area.

135. The project's Theory of Change includes several strategies for scaling and for ensuring durability, as follows. A separate Theory of Change for Scaling and Durability has been developed to elaborate these strategies in more detail, as shown in Figure 14.

- ? The incorporation of biodiversity and SLM into local plans and investment frameworks ensures investments in biodiversity and sustainable livelihoods can extend beyond the project's lifetime. This will be further supported by enhanced capacity for monitoring and implementation, increased engagement of local stakeholders in the development and implementation of plans, along with strengthening of tenurial instruments such as the CBFMAs and PACBRMAs.
- ? The project's efforts will be embedded in and will directly build on the momentum and impetus generated by the recently finalized MBSDMP, as well as the two new Administrative Orders on BDFEs and BDFAPs.
- ? Partnerships will be established between LGUs, private companies and local communities, and POs will be capacitated through organizational strengthening. POs and producer associations will be capacitated to help scale up innovations and best practices in the future.

- ? Extension services and community outreach by LGUs, DENR, DA, universities and other agencies will be strengthened.
- ? Incentive systems such as market linkages and payments for ecosystem services/carbon incentive schemes will be developed and capacity built for their scaling, incorporating considerations for Post COVID-19 recovery and potential future shocks.
- ? Finally, the project will foster sharing and dissemination of knowledge and best practices to increase awareness of local stakeholders of the biodiversity values of Bataan, and in the process, will aim to reach a critical mass of stakeholders for scaling and replication of sustainable livelihoods.

Figure 14: Theory of Change for Scaling and Durability



136. In response to the country's socio-economic recovery efforts to COVID-19, the project will explore multiple measures to strengthen safety nets and promote a local green economy through improved natural resource governance and community stewardship. These include (a) a resilient supply chain for biodiversity-friendly enterprises that generate income and empowerment, especially for women and indigenous peoples; (b) a responsible tourism that fosters inclusive green growth in and around the protected areas that are under threat from further exploitation due to loss of income; (c) biodiversity-friendly agricultural practices for subsistence farmers to address immediate challenges to food security; (d) sustainable land management measures that improve productivity, address soil erosion and protect biodiversity and ecosystems in the upland and downstream riparian areas and coastal zones. Experiences from the project will be recommended for integration into relevant provincial and national plans and policies to strengthen the country's capacity to deal and recover from the COVID-19 pandemic and potential future shocks under increasing climate variabilities and risks to biodiversity and ecosystems. These measures will be implemented under the three components of the proposed project.

Assumptions

137. The project's Theory of Change is based on a number of assumptions. The project assumes that, *IF* multiple land use plans of agencies with different jurisdictions are aligned, consistent and gender-responsive and co-owned by local stakeholders, and technical assistance and investments in natural resource management, sustainable land use and alternative livelihood opportunities are provided to local communities, *THEN* ecosystems services will be restored, global environment benefits delivered and land degradation addressed *BECAUSE* institutions in Bataan Province have the technical capacity to mainstream biodiversity, and communities in the key biodiversity areas have knowledge and skills and necessary incentives on sustainable land use,

livelihoods and enterprise development under harmonized landscape management plans. Furthermore, the Theory of Change is based on the following assumptions, to be regularly reviewed and verified during project implementation:

- ? LGUs have sufficient incentives and commitment to integrate BD and SLM into their local plans.
- ? Anticipated market opportunities materialize and are not hindered by COVID-19 or other future shocks.
- ? Empowered local stakeholders and improved planning will lead to better monitoring and enforcement.
- ? Livelihood activities can be implemented despite potential extended COVID-19 restrictions.
- ? Sustainable practices ultimately deliver better livelihoods.
- ? Demographic changes do not offset conservation and sustainable management efforts introduced by the project.
- ? Stakeholders will change their behaviour when they understand the benefits of a new behaviour, i.e., adopting biodiversity-friendly activities and livelihoods, and when the barriers to its adoption are removed.

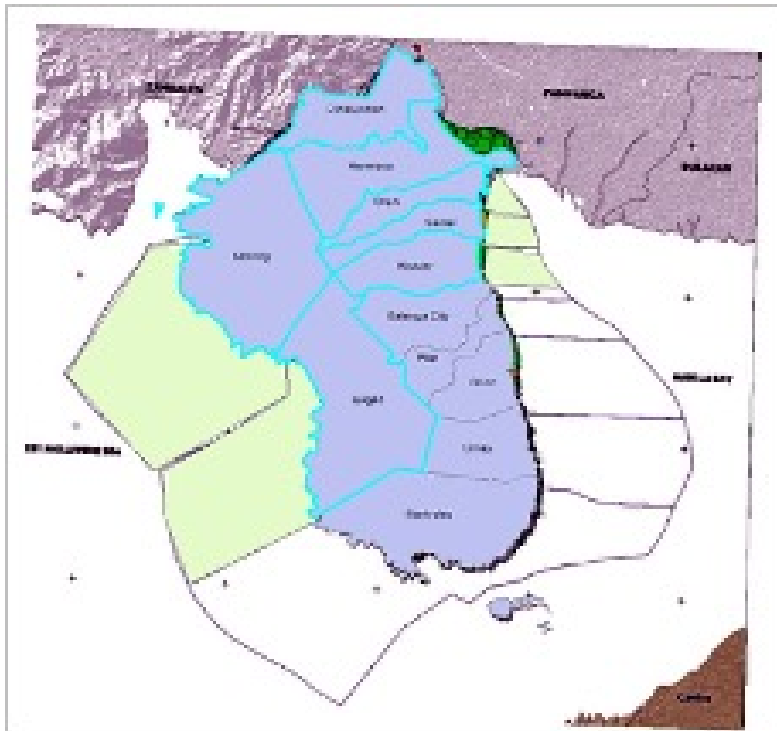
138. The proposed outputs and outcomes were discussed in detail with stakeholders during the project preparation phase and are considered both necessary and sufficient to achieve the project's goal, if the above assumptions hold true. It is also assumed that the above interventions will be durable, as described above. The Theory of Change, including the separate Theory of Change on Scaling and Durability, as well as the assumptions will be regularly reviewed and validated with stakeholders during implementation, as described under Output 3.1.3 below.

Box 12: Site and beneficiary selection criteria

139. The following criteria for selection of the project sites and communities within Bataan Province were discussed, expanded, and elaborated in collaboration with key stakeholders during PPG. Based on these criteria, the seven municipalities of Hermosa, Orani, Samal, Abucay, Bagac, Morong, and Dinalupihan were prioritized. The geographic jurisdictions of these municipalities overlap with BNP/RPL. The selection will be finalized in close consultation with local governments and stakeholders during the initial project implementation phase.

- ? Area/LGU within or adjacent to Protected Area (BNP or RPL).
- ? Areas with significant erosion from watersheds that are draining to Manila Bay or the West Philippine Sea (turtle nesting sites), with potential adverse impacts to their biodiversity.
- ? Land degradation hotspots.
- ? Existence of threats and challenges to the PAs and KBAs.
- ? Presence of Indigenous Peoples and Ancestral Domains with ADSDPP.
- ? Existing (or potential new) CBFMA, PACBRMA or NGP areas.
- ? Opportunity to pilot how biodiversity and SLM can be mainstreamed in a KBA (e.g., BNP) that has multiple land uses ? forest, agriculture, ecotourism, industrial.
- ? Opportunity to pilot test and upscale soil conservation farming systems.
- ? Potential for BDFE/BDFAP development; hence, the existence of community/producer organizations.
- ? Presence of mangrove and other important coastal and marine biodiversity and communities dependent on them.
- ? Community interest, ownership, and leadership.
- ? Areas and communities severely affected by climate change.
- ? Presence of women-headed households and/or women's groups.
- ? Communities that have received less support in the past.

Figure 15: Map of 7 main target LGUs, including their coastal area as delineated in the PDPFP of Bataan (Source: PPG team)



Project objective, components, outcomes and outputs

140. **Project Objective:** To mainstream biodiversity and sustainable land management in and around key biodiversity areas along Bataan province to Manila Bay through harmonised land use plans and frameworks while improving secure and diversified local livelihoods.

Component 1: Land use planning, supporting biodiversity and sustainable land management (SLM) enhanced at all levels

Outcome 1.1: *Cross-sectoral capacities strengthened to develop and implement harmonized land use plans, investment plans, and resource management frameworks in Bataan Province^[123], in support of the Manila Bay Sustainable Development Master Plan (MBSDMP).*

141. Component 1, Outcome 1.1 will support the participatory, inclusive development and implementation of harmonized land use plans, as well as biodiversity and sustainable land management (SLM) mainstreaming into these plans. It will also ensure that the MBSDMP objectives are incorporated in the local plans, and that biodiversity and SLM objectives are represented in local development plans and budgets and their implementation. Objectives for COVID-19 recovery, including green recovery/green jobs, will also be incorporated. Institutional and individual capacities will be built and strengthened for planning, assessment and monitoring of biodiversity and ecosystems, SLM and livelihood objectives.

Outcome 1.1 will result in the following targets (see Annex A1 for more details):

- ? At least 10 revised land use plans/investment plans that are harmonized and mainstream biodiversity and SLM (of which, 2 CLUPs or CDP/PDPFP^[124], 2 local investment plans/annual budgets, 1 local ecotourism plan, 2 FLUPs, and 3 of any of the following: CRMPs (of PACBRMAs); CRMFs (of CBFMAs); ADSDPPs (of IPs).
- ? Multi-sectoral/multi-stakeholder platform established with women and men representation and meets regularly to monitor progress in meeting targets set out in the PDPFP and MBSDMP and provide guidance to the harmonization process.
- ? 250 staff (50% women) of DENR and provincial and municipal LGUs trained and participating in watershed hydrology or land degradation assessments or coastal management strategies.
- ? At least 50 staff (50% women) of DENR and provincial and municipal LGUs trained in biodiversity monitoring systems (IIMS, BAMS, LAWIN, water quality monitoring), at least 50% of which will use the systems following the training.

Output 1.1.1: *A multi-sectoral/multi-stakeholder platform with capacity on ecosystems management in Bataan Province established and operationalized to facilitate learning and sharing and harmonization of plans amongst LGUs, provincial and national stakeholders.*

142. Under this output, a multi-sectoral and multi-stakeholder platform, comprising relevant agencies and other stakeholders including civil society, academia, private sector and community institutions, coordinated by DENR with capacity on ecosystems management will be established and operationalised. The platform will aim to facilitate learning and sharing and harmonization of plans amongst LGUs, provincial and national authorities and other relevant stakeholders. Representation and active participation of women and Indigenous Peoples in the platform will be ensured. It will enable relevant agencies to coordinate their mandates to address ecosystem degradation and biodiversity loss in Bataan Province. In particular, it will provide guidance to the land use planning and implementation under Output 1.1.3, as well as the enhancement of biodiversity monitoring systems, including data sharing among agencies under Output 1.1.4. Finally, it will also be involved in the formulation of policy recommendations under Output 3.1.2, to ensure that knowledge generated by the project feeds into policy formulation. The platform will build on existing structures such as the Provincial Development Council (PDC), Bataan Sustainable Development Council or the Provincial and Municipal Land Use Committees or sub-committees. Where feasible, the project will also support the relevant agencies and stakeholders to build and strengthen new partnerships, including the private sector, and leverage its investments in biodiversity and restore ecosystem services in the biologically rich areas. Other agencies such as the Department of Public Works and Highways (DPWH) will be engaged to secure their support, such as for investments in bioengineering/slope stabilization work that complement the project's interventions. Furthermore, the multi-stakeholder platform will be used as a forum to promote strengthening of tenurial instruments such as PACBRMAs, CBFMAs, and ADSDPPs.

143. Activities under this Output will include:

- ? Activity 1. Hold consultations to discuss establishment of a provincial multi-sectoral/multi-stakeholder platform.
- ? Activity 2. Develop draft Terms of Reference (TOR) of the platform in a gender-sensitive and inclusive manner.
- ? Activity 3. Adopt TOR in a consultative manner and establish the platform.
- ? Activity 4. Organize regular coordination meetings of the platform.

Output 1.1.2: *Department of Environment and Natural Resources (DENR) and relevant stakeholders are capacitated to catalyze GEB^[125] mainstreaming, to support implementation of the Operational Plan of the Manila Bay Coastal Strategy (OPMBCS) and the MBSDMP.*

144. The project will assist and capacitate the DENR and relevant stakeholders to enhance assessments and implement relevant coastal management strategies in support of the OPMBCS, the

MBSDMP and the local land use plans. Under the guidance of the multi-sectoral/multi-stakeholder platform, hydrological assessments will be conducted in at least two selected Bataan watersheds that connect to Manila Bay, in a ridge-to-reef approach. This will likely include Almacen and Talisay watersheds or other key watersheds as agreed with stakeholders. The assessments will analyse the impacts of surface run-off and sedimentation on coastal ecosystems and biodiversity including coral reefs, mangroves, fisheries, and marine turtles. Results of these hydrologic analyses will constitute significant inputs to better understanding of fluvial and alluvial dynamics of the landscape surrounding the coastal areas of Bataan. These hydrologic modeling techniques can provide estimates of the amount or magnitude of surface-run-off and soil erosion, and where within the landscape or watersheds and mountain slopes these run-off and soil erosion are coming from, i.e., the sources of soil erosion and run-off within the watershed. The magnitudes are dependent upon a number of factors that may include: the amount and intensity of rainfall, land use, land cover, soil type and other geomorphic characteristics of the watershed. Furthermore, the Output will conduct participatory assessment of land degradation in at least two (2) municipalities of Bataan, building on previous assessments conducted under the LADA project.^[126] Land degradation, its extent and causes, and associated impacts on ecosystem services, will be properly understood and assessed. The assessments conducted under this Output will provide input for the land use planning process in Output 1.1.3. Finally, the project will enhance and provide training on relevant coastal management strategies that are needed in order to realize the objectives of the OPMBCS and the MBSDMP. To do this, it will build on previous Integrated Coastal Management (ICM) efforts undertaken in Bataan, as well as training material and methodologies developed by PEMSEA. This will support implementation of the Programs, Activities, and Projects (PAPs) foreseen in the MBSDMP. Activities under this Output will also lay the foundations for the implementation of community-based coastal resources management under Component 2, including locally managed marine protected areas as well as community-based ecological mangrove restoration. Finally, based on the above assessments and under the guidance of the multi-stakeholder platform and the River Basin Control Office (RBCO), the project will facilitate more detailed discussions on the potential establishment of a watershed governance mechanism for Almacen and Talisay watersheds. If considered useful and relevant by stakeholders, the project will provide technical assistance to establish such a governance mechanism.

145. Activities under this Output will include:

- ? Activity 1. Provide training to DENR staff and LGUs on hydrological assessments. Based on the training, conduct hydrologic analysis of at least two selected Bataan watersheds.
- ? Activity 2. Provide training on the assessment and monitoring of land degradation, land cover change, and habitat fragmentation in Bataan to DENR, DA and LGU stakeholders. In a participatory process involving relevant local stakeholders, conduct land degradation analysis in at least 2 municipalities.
- ? Activity 3. Assess, enhance, and conduct training on relevant coastal management strategies including those in locally managed marine protected areas.
- ? Activity 4. Discuss establishment of a watershed governance mechanism for Almacen and Talisay watersheds. Organize consultations and provide technical assistance to establish such a governance mechanism, if relevant.

Output 1.1.3. Key provincial institutions^[127] and Local Government Units (LGUs) in Bataan Province are capacitated to review, validate and implement Comprehensive Land Use Plans (CLUPs) and relevant sectoral plans and investments to support global environment benefits.

146. This Output will provide targeted support to selected LGUs of Bataan^[128] to update and harmonize their land use plans (CLUPs, FLUPs), development and investment plans, local ecotourism plans, and community-based plans. In parallel, it will support mainstreaming of biodiversity and SLM into these plans. Additionally, alignment will be sought with the PDPFP, OPMBCS/MBSDMP, and the recently developed General Management Plan and Strategy (GMPS) of BNP and RPL. Agencies and LGUs will be supported to incorporate strategies and actions of the MBSDMP and GMPS into the local plans. Integrated land and sea use planning will be promoted,

such as by combining CLUPs with the Integrated Coastal Management Plans (ICMPs), building on the examples of Abucay and Bagac. The project may also provide support to the updating of the Provincial Development and Physical Framework Plan (PDPFP), due for renewal in 2025. This process is anticipated to result in the updating and revision of at least 2 Comprehensive Land Use Plans (CLUPs) or Comprehensive Development Plan (CDP)/PDPFP, 2 Forest Land Use Plans (FLUPs), 2 local investment plans/annual budgets, 1 local ecotourism plan, and 3 of any of the following: Community Resource Management Plan (for PACBRMAs)/ Community Resources Management Framework (for CBFMAs) /ADSDPPs (for Indigenous Peoples). The existing ICCA community conservation plan of the Kanawan Aeta Magbukon community will also be considered in the analysis and harmonization efforts.^[129] Mainstreaming of Integrated Coastal Management into the CLUPs will also be supported. Finally, depending on the status of the Bataan Provincial Ecotourism Plan at the time of project start (currently under development but being delayed due to COVID-19), the project may also provide technical assistance for the finalization of this plan, aligning it with BDFEs and sustainable livelihoods.

147. The harmonization of plans will be anchored in the guiding principles of the Integrated Coastal Zone Management (ICZM) Planning Framework^[1] adopted in the MBSDMP. The ICZM framework is intended to guide decision-makers in assessing and approving programs/activities/projects (PAPs) for implementation in the Manila Bay area and adjacent areas with significant influence on the bay. In addition, this framework may also be used, among others, as a basis in updating the CLUPs/zoning ordinances of coastal LGUs in a manner that will harmonize the socio-economic development goals of the LGUs and Manila Bay, as well as in determining the best/suitable uses of municipal waters within the LGU jurisdiction.

^[1] Integrated Coastal Zone Management is a resource management system that follows an integrative, holistic approach and an interactive planning process in addressing the complex management issues in the coastal area.

148. To achieve these targets and ensure ownership and engagement of local stakeholders, this Output will involve a process of capacity building and participatory development of plans. First, the project will form working groups with women and men representation in selected municipalities based on existing land use committees or sub-committees. It will then provide gender-sensitive training to stakeholders on existing CLUP guidelines on harmonization and biodiversity/SLM mainstreaming,^[130] including the ridge-to-reef approach and alignment with the MBSDMP. Exchange and coordination will be sought with the Watershed Ecosystem Approach to Integrated Land Use currently being developed by the University of the Philippines Los Baños (UPLB) and their guidelines on integrating watershed-level land use planning processes. Capacity building modules will be tailored to strengthen effective and harmonised cross-sectoral land use management between the DENR and other agencies and sectors working within the same landscape, such as the LGUs, DA, NCIP, local communities, private sector, etc. With guidance from the multi-stakeholder platform, a comprehensive analysis will be undertaken by the working groups in selected municipalities to identify areas for harmonization and biodiversity/SLM mainstreaming, using the PDPFP and MBSDMP as the main overarching frameworks.

149. Technical assistance will then be provided for the updating of the selected plans. Local stakeholders, including local communities and government at the barangay level, will be closely engaged in the planning processes to increase ownership and awareness of the plans. Capacity will be built among government agencies and local institutions to support bottom-up, participatory planning. Community-based/participatory mapping will be conducted where relevant. Participation of women, youth and IPs will be ensured. The project will apply an ecosystems-based/ridge-to-reef planning and management framework appropriate for the project site, considering that there are two protected areas situated within the project site, and has a number of river systems that directly connect to the Manila Bay and the West Philippine Sea. Alignment will be sought with Pinulot watershed management plan which is currently under development. The planning process will also

incorporate considerations resulting from the recently issued guidelines on the Devolution Transition Plans (DTPs). It will incorporate climate risks, and well as Post COVID-19 recovery plans/green recovery. Where relevant, BDFE opportunities will be incorporated into local plans, including ecotourism plans. Alignment of plans should also involve allocation of annual budgets for biodiversity/SLM related activities.

150. Finally, considering that many of the CLUPs and other plans have already been formulated and already incorporate biodiversity/conservation objectives, the project will provide technical assistance in all seven municipalities for the implementation of existing or updated plans. This will involve training, awareness raising, and consultation meetings with relevant stakeholders. The project will also provide support in aligning the existing CLUPs with the MBSDMP and GMPS, which were not yet adopted at the time of drafting of these CLUPs. Capacities of LGUs and other partners will be strengthened to leverage resources for the implementation of biodiversity conservation, SLM and livelihood objectives. Links and coordination will be established with activities under Component 2, which also support implementation of the plans. Where relevant, the project will assist local communities in obtaining tenurial instruments such as the development of new PACBRMAs, renewal or conversion of CBFMAs, and harmonizing ADSDPPs with local plans.

151. Although training and capacity building activities under this Output will be provided, as needed, for the entire province and the 12 city/municipalities, actual updating of plans and implementation support will be limited to the seven pilot LGUs mentioned above (see Box 12 and footnote 133).

152. Activities under this Output will include:

- ? Activity 1. Form working groups with women and men representation in selected municipalities based on existing land use committees or sub-committees.
- ? Activity 2. Provide gender-sensitive training to relevant stakeholders on existing CLUP guidelines and opportunities for harmonization and biodiversity/SLM mainstreaming.
- ? Activity 3. Examine alignment among existing plans, and identify key areas for harmonization and biodiversity/SLM mainstreaming.
- ? Activity 4. Prepare timelines for updating/harmonization of selected plans and biodiversity/SLM mainstreaming in line with the outcomes of the analyses and stakeholder consultations.
- ? Activity 5. Provide technical assistance in selected municipalities for the harmonization and updating of selected plans as per the agreed timelines in a consultative process.
- ? Activity 6. Provide technical assistance in all seven municipalities for the implementation of existing or updated plans.

153. Note on training activities under Components 1 and 2: The PMU will ensure that the various training activities under Components 1 and 2 are coordinated and incorporated into the agencies' regular programmes for replication and scaling. As explained above, the project will build on existing training materials available instead of developing new ones, where available. An overview of the training activities under the project is provided below.

Table 3: Overview of training activities under the project

Training	Targeted stakeholder groups (trainees)	Done by whom (trainers) and Institutionalization
<i>Component 1</i>		
Output 1.1.2-A1: Provision of training to conduct of hydrologic analysis of watersheds	DENR staff and LGUs (mostly Government)	Sub-contract with NGO/university ? to be incorporated into regular DENR training modules

Output 1.1.2-A2: Provision of training to conduct participatory land degradation assessments in selected LGUs	DENR, DA and LGU stakeholders (Government and NGOs)	Sub-contract with NGO/university ? to be incorporated into regular DENR / DA / DILG training modules
Output 1.1.2-A3: Training and assessment on coastal management strategies	DENR and LGU stakeholders (Government and NGOs/community organizations)	Sub-contract with NGO/university ? to be incorporated into regular DENR and university training modules
Output 1.1.3-A2: Training on existing CLUP guidelines and opportunities for harmonization and biodiversity/SLM mainstreaming	LGU stakeholders (Government and NGOs/community organizations)	Sub-contract with NGO/university ? to be incorporated into regular DENR, DILG and university training modules
Output 1.1.4-A1: Training on existing biodiversity assessment and monitoring systems (IIMS, BAMS, LAWIN)	Provincial and local stakeholders (including LGUs, PA management offices, NGOs, etc.)	Sub-contract with NGO/university ? to be incorporated into regular DENR and university training modules
Output 1.1.4-A3: Provide training on the HCVA toolkit	Relevant DENR and LGU stakeholders (related to forests)	Sub-contract with NGO/university in collaboration with SIBOL project ? to be incorporated into regular DENR and university training modules
Output 1.1.4-A4: Training on coastal resources inventory assessment and monitoring systems	Provincial and local stakeholders (LGUs, NGOs, universities)	Sub-contract with NGO/university ? to be incorporated into regular DENR and university training modules
Output 1.1.4-A5: Training on water quality monitoring and water sampling	DENR and LGU staff	Sub-contract with NGO/university ? to be incorporated into regular DENR and LGU training modules
<i>Component 2</i>		
Output 2.1.1-A4: Training/training-of-trainers on: (i) BDFAPs, BDFEs and other sustainable livelihood options, (ii) soil and water conservation and SLM, (iii) links with CLUPs, GMPS and other local plans	LGU extension officers, POs, communities, farmers, fisherfolks LGU, DA, DENR and other Government agency staff will be trained as trainers where feasible, to increase ownership and institutionalization.	Sub-contract with NGO/university ? to be incorporated into regular DENR, DA and LGU training modules
Output 2.1.3: Technical assistance and on-the-job training for implementation of BDFEs, including training to the POs in organizational development, business entrepreneurship, financial management and other related capacity building support to effectively implement and sustain their BDFE activities	Local communities, POs	Sub-contract with NGO/university ? best practices to be shared through DENR

Output 2.1.4: On-the-job training support/ coaching on aspects related to value chain development/ marketing	Local communities, POs	Sub-contract with NGO/university ? best practices to be shared through DENR
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Output 1.1.4: *Multi-stakeholder monitoring systems established or enhanced for biodiversity mainstreaming to support decision making.*

154. This Output aims to enhance existing monitoring systems and data in support of biodiversity mainstreaming and decision making related to land use and management. It will fill in data gaps that are important for biodiversity conservation. First, the project will review, enhance and provide training to provincial and local stakeholders on existing biodiversity monitoring systems and databases relevant to Manila Bay and KBAs in Bataan. These systems include the IIMS, BAMS, and LAWIN, in particular. This will be done in consultation and under the guidance of the multi-sectoral/multi-stakeholder platform established under Output 1.1.1. The project will assist in the integration and implementation of BAMS and LAWIN to enhance LAWIN's scope and include biodiversity and other GEB benefits such as land degradation, soil erosion and siltation, flooding, and other climate change concerns. User-friendly monitoring tools and assessment methodologies will be introduced to stakeholders to monitor and assess the impact of, and progress made, in the implementation of the land use plans under Output 1.1.3. Existing Database Management Systems will be reviewed and enhanced, for biodiversity-rich areas within and outside the two Protected Areas, in a participatory manner. Climate change and land degradation indicators will also be incorporated, including the impacts of climate change on biodiversity and protected areas.

155. Second, the project will provide training to relevant DENR and LGU stakeholders on the HCVA toolkit developed under the USAID SIBOL project. It will then conduct a pilot assessment of HCVA in Bataan. The HCVA assessment will provide valuable data for the identification of conservation priorities to be incorporated into the local plans. In parallel, the project will enhance existing coastal resources inventory assessment and monitoring systems, building on previous work by the University of the Philippines and PCIEERD/DOST. It will develop training modules on simple and cost-effective assessment and monitoring of coastal resources and conduct assessments in selected LGUs of Bataan, to complement the assessments conducted earlier and during the development of the MBSDMP. Community-based monitoring will be introduced, where possible. Finally, DENR and LGUs will be trained in water quality monitoring and on the process of water sampling from the handling of water samples to the testing. Relevant stakeholders will be trained in using these tools, to be owned and operated by them. Mechanisms will be put in place to foster sharing of data and information among agencies, such as the sectoral agencies, LGUs, and the Manila Bay Coordinating Office. Through the multi-sectoral/multi-stakeholder platform and the participating LGUs, the generated data will be used for decision-making and future land use planning processes.

156. In line with this, Activities under this Output will include:

- ? Activity 1. Review, enhance and provide training to provincial and local stakeholders on existing biodiversity monitoring systems and databases.
- ? Activity 2. Assist in the integration and implementation of BAMS and LAWIN.
- ? Activity 3. Provide training to relevant DENR and LGU stakeholders on the HCVA toolkit and conduct pilot assessment of HCVA in Bataan.
- ? Activity 4. Enhance existing coastal resources inventory assessment and monitoring systems, develop training modules and implement them in selected LGUs of Bataan.
- ? Activity 5. Provide training and equipment on water quality monitoring for DENR and LGU stakeholders, including the process of water sampling.
- ? Activity 6. Foster sharing of data and information among agencies and stakeholders.

Component 2: Implementation of natural resource management and sustainable livelihoods to deliver global environmental benefits in and around key biodiversity areas (KBAs) at sub-provincial level in Bataan Province

Outcome 2.1: Local communities in and around key biodiversity areas are capacitated and incentivized to scale up livelihoods towards biodiversity-friendly enterprises while improving land and resource management (at sub-provincial level in Bataan Province).

157. Under Component 2, Outcome 2.1, the project will support the implementation and scaling up of natural resource management and sustainable livelihood interventions and generate global environmental benefits in and around the key biodiversity areas of the project area. Through a landscape approach, covering the identified protected areas and the contiguous production areas along the buffer zones and multiple use zones, as well as the coastal areas downstream, the project will introduce land-use and resource management interventions in an integrated manner. On-ground interventions in and around key biodiversity areas through a ridge-to-reef approach will be carried under this outcome. The project will identify a suite of biodiversity-friendly livelihood options, including ecotourism, sustainable agriculture and agroforestry products, and others for uptake by the local communities, with priority given to the most vulnerable groups, including women and IPs. Biodiversity-friendly agricultural practices, and strategies for rehabilitation and resilience within protection and production landscapes will be promoted and scaled up. Component 2 will cover both the terrestrial and the coastal and marine ecosystems, including forestlands vulnerable to soil erosion and flooding, and riparian zones at landscape level through the river systems of key watersheds. Coastal fisher communities, particularly in Abucay, will be supported to implement sustainable fishing practices and resource management. Production sectors, including farmers, fishers, private companies and POs that are active in the identified landscape will be supported to adopt resilient and sustainable business solutions that address biodiversity concerns.

Outcome 2.1 will result in the following targets (see Annex A1 for more details):

- ? 3,591.5 ha of land/sea under biodiversity-friendly agriculture, forest and fisheries management practices that reduce threats to biodiversity and minimize land degradation. This is estimated to include:
 - o 345 ha of PACBRMAs practicing BDFAPs/ BDFEs/ restoration.
 - o 1,928 ha of CBFMAs practicing BDFAPs /BDFEs/ restoration.
 - o 1,200 ha of NGP areas outside of CBFMAs/ PACBRMAs under improved practices.
 - o 100 ha of farmland under soil and water conservation.
 - o 18.5 ha under sustainable fisheries or other coastal interventions (such as ecological mangrove restoration).
- ? 830 farmers and fisherfolks (47% women) practicing sustainable natural resource management/ BDFAPs / restoration (agriculture, forestry, fisheries, agroforestry) (of which 130 Indigenous Peoples (IPs)).
- ? At least 5 Peoples? Organizations (POs) strengthened or newly created practicing biodiversity-friendly livelihoods, of which at least 1 women?s group or youth group.
- ? At least 3 BDFEs recognized by DENR (out the 5 POs above), of which at least 1 IP group.
- ? 1,710 beneficiaries (50% women, at least 260 IPs) of livelihood/value chain interventions, contributing to COVID-19 recovery.
- ? At least 2 partnerships established with private sector actors such as for PES/carbon incentive schemes or ecotourism.
- ? At least 100 farmers (50% women, at least 20 IPs) in the selected project sites that practice soil and water conservation measures.

Output 2.1.1: Capacity building of extension agents, community institutions, farmers, fisherfolk, other resources user groups to implement sustainable natural resource management in and around KBAs at sub-provincial levels in line with the existing and updated plans.

158. This Output aims to increase the capacity of extension agents, local community institutions, individual farmers and fisherfolks and farmers'/fisherfolk associations as well as other resource user groups in sustainable management of natural resources and biodiversity-friendly livelihoods, in line with the plans developed or enhanced under Component 1. The project will focus on strengthening the capacities of existing local community institutions in implementing local community resource management plans, PA plans, and improved land and resource management practices. As a first step, the project will organize consultations with local communities (including women, youth and IPs) to validate interest in project activities and identify participating communities. This will be based on the project's selection criteria as highlighted above, and stakeholder inputs as well as the criteria of the BDFE Appraisal tool (Annex F of the DAO 2021-13). Additional criteria will be established, as necessary, for the selection of POs and communities for livelihood/sustainable management activities under Component 2. This will include biodiversity and socio-economic criteria. This process will also involve conduct of the FPIC process for participating affected IPs in line with the ESMF.

159. The project will then survey and document past and current strategies/approaches for training farmers, fisherfolks, and communities in identifying and implementing suitable land use practices and sustainable natural resource management particularly within the multiple use zones of KBAs in Bataan. These strategies will be gender-differentiated and will also cover indigenous practices. For the documentation of these practices, the project will collaborate with relevant stakeholders including PAMBs, LGUs, POs/CSOs, BMB, BSWM, BFAR, DTI^[131], academe such as BPSU and possibly others that have existing activities in the project area. Local champions for sustainable land management, natural resource management and restoration will also be identified. Once the most relevant strategies and approaches have been identified, the project will develop or update/compile existing hands-on manuals on these practices, to support their replication under the project. Biodiversity-friendly agricultural practices will be documented and their impacts on biodiversity conservation assessed.

160. Based on these manuals, the project will develop and implement gender-sensitive training modules for capacitating LGU extension officers, POs, farmers, fisherfolks on 'best practices'. This will include training/training-of-trainers on:

- i) BDFAPs, BDFEs^[132], and other livelihood options in farming, agroforestry, aquaculture and fisheries that support implementation of the local plans (to be implemented under Outputs 2.1.2-2.1.4).
- ii) Demo Farms for soil conservation such as the Sloping Agricultural Land Technology (SALT) developed and piloted by BMB and BSWM (to be implemented under Output 2.1.5).
- iii) Links with and implementation of existing and newly developed plans, including the CLUPs, ADSDPPs, GMPS, PACBRMAs, etc.

DENR, DA, LGUs and other agencies and local stakeholders will be trained in the implementation of economic instruments, including BDFEs and BDFAPs. After the initial training/training-of-training, the project will roll out the training through involvement of government extension officers, farmers' and fisherfolk organizations, universities, as well as the project staff. Leaders of POs shall be trained as well to be able to facilitate community-based training and peer-to-peer sessions to reach out to their members. Implementation of these practices will then be supported under Outputs 2.1.2-2.1.5 by providing on-site training, demonstration, and technical and financial assistance to POs, as described in the following section. Additionally, the project will support the development of local agriculture and forest extension plans and farmer support systems to upscale good practices, including through the allocation of local budgets to biodiversity-friendly practices and livelihoods, building on existing extension systems (such as the municipal agriculture and environment and natural resource office, the Agricultural Training Institute (ATI) office in Dinalupihan, universities, and farmers' associations).^[133]

161. Accordingly, Activities under this Output will include:
- ? Activity 1. Organize consultations with local communities (including women, youth and IPs) to validate interest in project activities and identify participating communities.
 - ? Activity 2. Survey and document past and current gender-differentiated strategies/approaches for training farmers, fisherfolks, and communities in identifying and implementing suitable land use practices and sustainable natural resource management particularly within KBAs.⁴ Activity 3. Develop (or update/compile existing) hands-on manuals on the above best practices.
 - ? Activity 4. Develop and implement gender-sensitive training modules for capacitating LGU extension officers, POs, farmers, fisherfolks on "best practices" based on survey results above, and experiences of farmers and fisherfolks on selected sustainable land use practices.
 - ? Activity 5. Support the development of LGU's local extension plans (including allocation of local budgets) to upscale good practices.

Output 2.1.2: Communities practice sustainable natural resource management (agriculture, forestry, fisheries, agroforestry) with government and other partners, consistent with the land use plans under Outcome 1.

162. Based on the training provided under Output 2.1.1, the project will assist local communities and POs (including women, youth and IPs) in implementing sustainable natural resource management. This will be done in close collaboration with LGUs, DENR, and the PAMBs, in line with the local plans and PA plans. Management practices supported under this Output are expected to include:

- 3i) BDFAPs in upland, foothills and lowland areas such as agroforestry, sustainable harvest and management of NTFPs, organic farming, and conservation agriculture in CBFMAs, PACBRMAs and ADSDPPs.
- ii) Restoration and rehabilitation of degraded habitats in CBFMAs, PACBRMAs, and NGP areas, including through Assisted Natural Regeneration, enrichment planting using indigenous species, establishment of windbreaks, bamboo planting and fencing for riverbank stabilization and flood control, minor check dams to retain excess water flow and recharge groundwater, and establishment of tree nurseries.
- iii) BDFAPs/Natural Resources Management (NRM) in coastal areas, including the revival of fish sanctuaries, sustainable aquaculture and fisheries, bivalve conservation, turtle conservation, restoration of abandoned aquaculture ponds, mangrove-friendly aquaculture, and community-based ecological mangrove restoration.

163. Implementation of these practices will be supported through on-farm demonstrations, provision of training and extension services, regular follow-up and peer-to-peer training/farmer-to-farmer visits, financial support to POs, and provision of seedlings and equipment. Necessary skill development activities will be provided for scaling up some of the identified livelihood activities, where at least 50% of the beneficiaries will be women, and at least 130 beneficiaries will be IPs. All interventions under this Output will be critically assessed in terms of their climate sensitivity to ensure that the practices or livelihoods that will be promoted are climate-proof and viable in the face of climate change. Interventions will promote improved management of soil and water resources to mitigate drought conditions, reduce soil erosion, and ensure water availability for both domestic and agricultural needs. Links will be established with the market incentives and sustainable livelihoods to be developed under Output 2.1.4, including for COVID-19 recovery. Interventions under this Output will also cover NGP areas within PAs that are currently under no management arrangement, i.e., that are outside of CBFMAs and PACBRMAs. Regarding BDFAPs, the project will exchange and coordinate closely with the UNDP GEF-7 Securing Long-Term Sustainability of Multi-functional Landscapes in Critical River Basins of the Philippines project, which also promotes SLM and the development of incentive mechanisms for BDFAPs. Finally, the project will develop and implement a participatory monitoring system that will assess the practice and progress of the communities in implementing the best practices, assess livelihood benefits of sustainable practices, and how closely they are aligned and consistent with the

harmonized plans. Regarding NTFPs, the project will also build on the recently issued ASEAN guidelines for Sustainable Harvest and Resource Management Protocols for Non-Timber Forest Products, including wild honey, where applicable.^[134]

164. Activities under this Output will include:

- ? Activity 1. Assist local communities and POs (including women, youth and IPs) in implementing sustainable natural resource management in close collaboration with LGUs, DENR, and the PAMBs, in line with the local plans and GMPS.
- ? Activity 2. Develop and implement participatory monitoring system.

165. Note: The project recognizes a certain degree of overlap between the different elements of this and the following three outputs, including BDFAPs, BDFEs, restoration, market linkages for sustainable livelihoods, and soil and water conservation. These outputs will, thus, be implemented in parallel and in close coordination between and among each other.

Output 2.1.3: Local communities in the target areas, especially women and indigenous peoples, foster private sector partnerships and are capacitated to implement biodiversity-friendly enterprises (BDFEs).

166. This Output is aimed at fostering partnerships and capacitating stakeholders to promote and implement the concept of BDFEs in the target areas of Bataan Province. As this concept is still new^[135], the project will help to establish a technical working group under DENR's lead (linked with the multi-stakeholder platform established under Component 1), to promote BDFEs and sustainable livelihoods in Bataan Province. This will provide an enabling mechanism to align national and local government mandates, private sector initiatives, and local community livelihood opportunities as well as opportunities for green recovery with the concept of BDFEs. The project will also make use of the tools introduced in the DAO 2021-13 (ie Appraisal tool). According to the DAO 2021-13, in order to be recognized as biodiversity-friendly enterprise, the enterprise shall be measured against the ecological, economic, equity and legal standards. Each standard shall be measured based on identified indicators and parameters specified in the appraisal tool (Annex F of the DAO). It will then assist DENR in conducting/validating an inventory of POs and other organizations that are implementing sustainable livelihoods and BDFE-related activities in the target areas. Results of the inventory shall be used to assess the status of the POs and identify the gaps and challenges in implementing BDFEs and sustainable livelihoods. This will be done in close collaboration with other agencies including NCIP, DA, DTI, and DOT. Based on this inventory, the DENR and NCIP (for IP POs) shall develop a monitoring platform, which will serve as their tracking tool to monitor implementation of BDFEs. The project will then assist DENR and LGUs to formulate and implement a communications and awareness strategy on BDFEs among POs, private sector actors, and other relevant government agencies such as NCIP, DOT, DTI, DOST, and DPWH. Furthermore, if they are not yet in place at the beginning of the project, the project will facilitate the development of standards and processes for the recognition of BDFEs. Existing good practices, guidelines, and principles on biodiversity conservation and management will be taken into account in drafting these standards and processes.^[136]

167. To strengthen private sector involvement and partnerships, the project will convene a provincial level network of POs, producer associations and private sector actors that will serve as an organizational leverage or platform for BDFEs at the provincial and municipal level. Annual meetings / marketplace of these stakeholders will be organized to network and help promote the BDFEs. Additionally, the project will facilitate a consultation meeting with members of the Bataan Coastal Care Foundation, Inc. (BCCFI) and other similarly intentioned organizations and discuss revival of BCCFI and their potential role in BDFAPs/BDFEs. The presence of large corporations and private companies in Bataan such as the shipping, petroleum and industry sectors represents an opportunity for the project to engage these in biodiversity-friendly enterprise development under their Corporate Social Responsibility (CSR) programs, while also raising their awareness on the importance of preserving Bataan's marine and terrestrial biodiversity. The project will analyse the

possible alignment of BDFEs with carbon incentive schemes and CSR interests of the private sector. Environmental Compliance Certificate (ECC) of private companies (compliance to air, land and water pollution control) constitutes another possible incentive mechanism that could be linked with BDFEs. Linkages will also be established with ongoing efforts by the Philippine Chamber of Commerce and Industry (PCCI), the Department of Labor and Employment (DOLE) and DTI to promote green recovery/green jobs, which could be linked with BDFE-related initiatives.

168. In a participatory process, the project will identify potential BDFE opportunities with interested POs and private sector actors in the target areas. These POs should include women-led groups, youth groups^[137], and IPs. BDFEs are expected to cover areas such as sustainable agriculture, forestry/agroforestry/NTFPs, sustainable fisheries and aquaculture, local product development for these activities such as honey, bamboo and cashew, ecotourism, and associated incentive mechanisms. The support provided under this Output will be focused not only on BDFEs that strictly meet DENR Department Administrative Order 13-21 criteria, but also other biodiversity-friendly enterprises more generally.

[1]

[1] According to DENR Department Administrative Order 21-13 criteria, only enterprises within protected areas, conservation areas or their buffer zones can be officially recognized as BDFEs and may benefit from DENR financial support. However, there is potential to test and apply the policy/concept outside of Protected Areas/Conservation Areas. Thus, the project will support biodiversity-friendly enterprises both within PAs and more generally/in the wider landscape. Feasibility assessments of potential BDFEs will be conducted, including due consideration to the COVID-19 situation and climate change impacts (i.e., resilience to drought, floods, sea level rise, landslides, flooding, and future shocks will be considered). Measures will be taken to ensure that BDFEs and livelihood activities are sustainable and do not harm the biodiversity of the protected areas, especially within the ancestral domains of Indigenous Peoples, and to the livelihoods of local communities. Once the BDFE opportunities are identified, the project will provide technical and financial assistance to POs in implementing these BDFEs. This will also include incubation support, establishing partnerships with the private sector, and training to the POs in organizational development, business entrepreneurship, financial management and other related capacity building support to effectively implement and sustain their BDFE activities. POs will be trained in developing a Business Development Strategy facilitated by BMB's field officers. The Output will result in the participatory formulation of at least three project proposals to DENR (including one led by an IP group), targeting official recognition of these three BDFEs by DENR consistent with the requirements of the Administrative Order by the end of the project. In addition to these three BDFEs, an additional two BDFEs outside of the official DENR BDFE recognition process will be supported by the project, of which at least one women's or youth group and one coastal community. The project will support women beneficiaries to develop their decision-making and leadership capacities, as well as build and enhance their entrepreneurial skills, through partnership with the private sector to generate and improve their livelihoods, thus contributing to the overall socio-economic resilience of the community. Women farmers will be integrated into the supply chain and trained in book-keeping and financial literacy, amongst others.

169. Activities under this Output, thus, include:

- ? Activity 1. Establish a technical working group under DENR's lead to promote BDFEs and sustainable livelihoods in Bataan Province.
- ? Activity 2. Provide technical assistance to DENR and NCIP to conduct/validate an inventory of POs, and to conduct regular monitoring of BDFE activities.
- ? Activity 3. Provide technical and financial assistance to DENR and LGUs to formulate and implement a communications and awareness strategy on BDFEs in Bataan.
- ? Activity 4. Consolidate, organize, and strengthen a provincial level network of POs, producer associations and private sector actors that will serve as an organizational leverage for BDFEs at the provincial and municipal level.

- ? Activity 5. Facilitate a consultation meeting with the members of BCCFI and discuss revival of BCCFI and potential role in BDFEs.
- ? Activity 6. In a participatory process, identify potential BDFE opportunities with interested POs and private sector actors in the target areas (including women-led groups, youth groups, IPs).
- ? Activity 7. Provide technical and financial assistance to POs in setting up and implementing the BDFEs and in forming partnerships with the private sector.

Output 2.1.4: *Increased investment/market incentives in sustainable and diversified livelihood opportunities for local communities in upland forests and riparian/coastal zones in lieu of environmentally damaging activities, and in socio-economic recovery from COVID-19 impacts and related shocks.*

170. This Output involves the identification and uptake of gender-responsive sustainable livelihood options for communities in the upland areas and riparian/coastal zones based on consultations with the stakeholders. Based on the identified diversified and sustainable livelihood options, local communities will be supported through on the job training and appropriate skill development activities. This Output will complement the BDFEs and BDFAPs under Outputs 2.1.2 and 2.1.3 with additional livelihood opportunities, market linkages and incentive mechanisms. This may include promoting market incentives and investments to bring sustainably produced products to market and ecotourism. In addition, incentive mechanisms such as PES and a forest carbon incentive system will also be developed and piloted. As a first step, the project will conduct a participatory, inclusive value chain analysis for selected products/services of BDFAPs/BDFEs and other sustainable diversified livelihoods. This will be done in collaboration with existing organizations such as LGUs, BPSU, DENR, DOST, DTI, DOT, NCIP, producer associations and other people's organizations, local government units and the Philippine Chamber of Commerce and Industry (PCCI), and Philippine Business for Social Progress (PBSP). The analyses will build on existing studies and will cover at least one in each of the following categories: (i) Ecotourism/agro-ecotourism/farm tourism; (ii) Agroforestry/NTFPs (bamboo, cashew, coffee, honey, etc.); and (iii) Coastal (fish, bivalves, etc.). They will be gender-sensitive (by mapping out roles of women and men across the value chains and identifying value chains that particularly benefit women) and will respond to the needs of Indigenous Peoples.

171. Based on the analyses, the project will assist local producers and POs (including women-led groups, youth groups, IPs) in developing value chain and market linkages for sustainable/biodiversity-friendly products. This will be done through promotion of the 'Galing Bataan' (an existing local brand to promote local products) and other marketing brands/strategies. This may also involve the promotion of One Town One Product (OTOP) or Geographical Indication System for those BDFE commodities/products or that will be recognized both by the LGU, DTI and DENR. On-the-job coaching/Training support will be provided on geographical indication (GI), value chain and market linkages, financial literacy, post-harvest technologies, and marketing in collaboration with existing organizations. Vulnerable groups, including non-tenured migrants, will also be engaged in sustainable enterprise and livelihood activities and skill development. Innovative technologies and strategies on eco-friendly business enterprise and livelihoods such as those developed by BPSU and DOST's Technology Business Incubation program will be promoted, including innovative strategies for coping with COVID-19 and other future shocks (such as the use of social media, innovative packaging, and farmer-to-consumer marketing). The project will forge partnerships with organizations such as Non-Timber Forest Products Exchange Programme (NTFP-EP), Sagip Kalikasan, BPSU and DTI to replicate their experiences on developing the value chain of forest honey and bamboo products, and coastal-related BDFEs such as markets for bivalves, mangrove crabs, value addition of fish products, and others. Linkages and coordination will be established with the Bataan Bamboo Council and DTI at the provincial and regional level to provide product development and marketing support to existing bamboo plantations implemented through the NGP program in the CBFM areas.

172. With regards to ecotourism/agro-ecotourism, the project will provide technical financial assistance to POs, LGUs and sustainable ecotourism enterprises to integrate biodiversity conservation and BDFEs in support of the local ecotourism plans and ensuring conservation of biodiversity values. This may involve development of promotional, marketing and communications materials that raise awareness on biodiversity values, development of visitor guidelines based on do-no-harm principles, waste management, analysis of carrying capacity and related guidelines, etc. Ecotourism, agro and farm enterprises promoted by the project should be community-based or providing employment opportunities for local communities, including women, youth and IPs. This could also involve training local women, youth and IPs as tourist guides and/or in other tour-related services under the local ecotourism plans. The Gender-Responsive Toolkit on Ecotourism Planning and Management will also be used as a guidance.^[138]

173. Finally, the project will pilot up to two forest carbon incentive schemes with one or two local communities/ POs in partnership with private sector, LGU and DENR. This will include a process of assessment, third-party verification and certification of carbon benefits, financing and implementation arrangement, community consultations to obtain free, prior and informed consent (FPIC), etc. The carbon incentive schemes could be implemented with an IP group in NGP areas, a PO in a CBFMA, or a coastal community implementing ecological mangrove restoration. Previous works in the Aeta-Magbukun ICCA will be taken into account and considered as a potential project intervention site. The carbon incentive scheme will build on the Voluntary Forest Certification System currently being discussed between DTI's Philippine Accreditation Bureau and DENR's Forest Management Bureau. It will be explained in the local/indigenous languages or dialects in order to ensure understanding by the local/indigenous communities. Genuine and meaningful engagement of local and indigenous communities will be undertaken to ensure free, prior and informed consent. The incentive scheme could be implemented through a tripartite arrangement involving the private sector (who provides the fund and claims the carbon benefit as part of its CSR), the communities who will be in charge of the forest development activities (e.g., forest protection, reforestation, forest restoration, and rehabilitation), and the government, which will administer the system, oversee the verification system, and award the carbon credits. The provincial government also identified a similar initiative in the Provincial Physical and Development Framework Plan where they have their vision of a Carbon Neutral Bataan 2025 program. These include improving solid waste management, promoting clean energy and enhancing urban greening, promoting source reduction through the regulation or banning of single-use products, crop diversification, and agroforestry.

174. As for Output 2.1.3 above, measures will be taken to ensure that BDFEs and livelihood activities are sustainable and do not harm the biodiversity of the protected areas, in particular within the ancestral domains of Indigenous Peoples, and to the livelihoods of local communities.

175. In summary, Activities under this Output will include:

- ? Activity 1. Conduct a participatory, inclusive value chain analysis for selected products/services of BDFAPs/BDFEs and other sustainable diversified livelihoods.
- ? Activity 2. *Agroforestry/NTFPs/coastal products*: Based on the analyses, assist local producers and POs (including women-led groups, youth groups, IPs) in developing value chain and market linkages for sustainable/ biodiversity-friendly products.
- ? Activity 3. Demonstrate/apply innovative technologies and strategies on eco-friendly business enterprise and livelihoods.
- ? Activity 4. *Ecotourism*: Provide technical assistance and some financial support (such as for development of promotional, marketing and communications materials) to POs, LGUs and sustainable ecotourism enterprises (including women, youth and IP communities) in line with the local ecotourism plans and ensuring conservation of biodiversity values.
- ? Activity 5. *Forest carbon incentive scheme*: Pilot at least one (1) carbon incentive scheme with a local community/PO in partnership with private sector, LGU and DENR guided by Carbon Accounting, Verification, and Certification System for Forest Carbon Projects (CAVCS) including third-party verification and certification.

Output 2.1.5: *Soil and water conservation implemented and groundwater sources mapped and monitored by local communities and authorities (DA-BSWM) to ensure domestic and agriculture needs are met (in times of drought).*

176. This Output will complement Outputs 2.1.2-2.1.4 by achieving sustainable land, water and ecosystem management for communities in upland and riparian zones engaged in unsustainable land use and land management practices. The project aims to integrate soil and water conservation practices in an estimated 100 farming households (of which 20 IP families) and restore an area of 100 ha of degraded land, especially in the upland areas. It also aims to reduce the use of chemical fertilizers and pesticides on these lands. The project will review and compile existing locally generated experiences on soil and water conservation, especially those piloted by BSWM and BPSU in Dinalupihan and Abucay. It will then support replication of those soil and water conservation measures and best practices, included those under 'Guided Farms' which were developed with a particular view of preventing or minimizing soil erosion and sedimentation that ultimately impacts the coastal ecosystems. This will be done in a participatory process between local communities and local authorities who are familiar with these soil conservation measures and practices. It may involve on-site demonstrations on communal or farmer's land and replication through regular follow-up and peer-to-peer training. Soil quality assessments and monitoring, including community-based monitoring, will also be conducted.^[139] It is anticipated that the appropriate mix of agroforestry crops within these upland farms will not only help farmers address soil erosion and increase soil fertility, but will also result in better yields from the upland farms ensuring food availability, food and nutrition diversity, and additional income for the families of the upland farmers. Additionally, the project will also map and monitor groundwater sources in collaboration between local communities and authorities (DA-BSWM) to ensure that domestic and agriculture needs are met, in particular in times of drought.

177. Activities under this Output will include:

- ? Activity 1. Support replication of soil and water conservation measures and Guided Farms, such as those piloted by BSWM and BPSU, to minimize soil erosion and increase soil fertility.
- ? Activity 2. Conduct soil quality assessments and monitoring, including community-based monitoring.
- ? Activity 3. Map and monitor groundwater sources in collaboration between local communities and authorities (DA-BSWM) to ensure domestic and agriculture needs are met (in times of drought).

Component 3: *Monitoring and evaluation and knowledge management*

Outcome 3.1: *Knowledge exchange for scale-up and replication of interventions that mainstream biodiversity conservation and sustainable land management.*

178. Under this component the project will define the strategies for effective monitoring and evaluation, as well as enhancing the knowledge, understanding, attitude, and practices on Biodiversity Conservation and management, and Soil and Water Conservation Measures (among others), of targeted sectors and key stakeholders. Related best practices will be documented and shared to stakeholders and a national conference will be undertaken to interact with other related GEF projects, river basins, and watershed management institutions / associations in the country and share experiences generated under this project, with support and involvement of mainstream actors, LGU leagues, and business sector.

Outcome 3.1 will result in the following targets (see Annex A1 for more details):

- ? 9,750 stakeholders (50% women) reached by project Knowledge Management and Communication.
- ? 20% increase in awareness, knowledge, and capacity of project stakeholders as per Knowledge, Attitudes and Practices (KAP) survey.
- ? One (1) online portal on project learnings, exchange of good practices functional.
- ? Five (5) best practice documents prepared and disseminated.
- ? Two (2) events promoting replication and scaling at the provincial and national level.

Output 3.1.1: *Knowledge management and communication plan developed and implemented that incorporates project lessons and related innovative practices for scale-up in Philippines.*

179. Under this Output, the project will implement knowledge management (KM) and communications activities with the aim to disseminate lessons learned and best practices on biodiversity-friendly agricultural practices and enterprises, soil and water conservation, and strategies for scaling harmonized land use plans and biodiversity/SLM mainstreaming in Bataan Province and beyond. First, the project will develop a project KM and communication plan. It will then implement KM and communications activities. A KM system, including a website building on DENR and MBSDMP existing platforms, will be established and maintained to share project progress towards results and knowledge developed. A provincial-level forum will be organized to introduce the project and foster ownership and buy-in from local stakeholders. A survey on the level of knowledge, attitude, and practices (KAP) on biodiversity conservation and management, and soil and water conservation measures, of targeted sectors and key stakeholders will be conducted. This will help identify whether the desired change in practices and behaviour are being achieved, or whether the Theory of Change and its assumptions need to be adjusted. Furthermore, the project will support Information, Education and Communication (IEC) efforts of BNP and RPL. Awareness will be raised among agencies and communities within the KBA sites, the coastal areas and the general public on the biodiversity values present in Bataan Province. The IEC efforts will be targeted towards the desired changes in practices and behaviours and will be tailored to the various stakeholders (upland, coastal, IPs, women, etc.). Best practices on harmonized planning, sustainable land management/good agricultural practices, biodiversity-friendly enterprises and their benefits and incentive mechanisms, COVID-19 response and recovery, climate change adaptation and resilience, sustainable fisheries and mainstreaming coastal and marine biodiversity, etc. will be identified, documented and disseminated. Livelihood benefits and incentive mechanisms of the project interventions will be documented in view of their wider adoption and scaling. Good practices on gender mainstreaming will also be documented and widely disseminated.

180. The project's knowledge management activities will also include the development of manuals and knowledge products to facilitate capacity building and transfer of knowledge among LGU personnel. This will also enable the members of the multi-sectoral platform (as proposed in Output 1.1.1) and other policy makers to access reference materials that can be used for replicating and scaling up the best practices of the project.

181. The project will organize up to two national conferences to share the success stories and lessons learned from the project with other related GEF-supported environmental and biodiversity projects^[140], as well as with other river basin organizations within the Philippines. This will also involve awareness raising and advocacy to promote the newly approved Administrative Orders on BDFEs and BDFAPs and the Biodiversity and SLM mainstreaming guidelines. If successful, the working group and activities on BDFAPs and BDFEs piloted in Bataan can be replicated elsewhere in the Philippines. Knowledge and experiences from the project will be shared at events related to the UN Decade on Ecosystem Restoration, UN Decade of Family Farming, and the UN Decade of Ocean Science. Citizen science education/outreach program may be conducted with academic institutions such as BPSU engaging local communities in Bataan. Finally, cross-site visits will be organized to foster exchange and learning and identify champions for replication and scaling

within Bataan Province. Exchange will also be supported among the marine turtle conservation network of the Manila Bay region, and awareness will be raised on turtle conservation.

182. Local stakeholders will be actively engaged in the knowledge preparation and co-dissemination processes. They will be asked to share their experiences, lessons learned, and highlighting key factors of success. Periodic review of the KM/communications plan will ensure its responsiveness to the project implementation and to project stakeholders' evolving KAP.

183. Activities under this Output will include:

- ? Activity 1. Develop project KM and communication plan that includes strategies for scaling harmonized land use plans and biodiversity/SLM mainstreaming in Bataan Province and beyond.
- ? Activity 2. Implement KM and communications activities in line with the plan developed above.
- ? Activity 3. Periodic review of the KM/communications plan.

Output 3.1.2: *Recommendations on biodiversity mainstreaming and integrated landscape management for effective implementation of the MBSDMP and PDPFP and local development and investment plans prepared and submitted to the relevant agencies.*

184. Results from the harmonization of plans under Component 1, and from the on-the-ground implementation under Outcome 2 in promoting sustainable, biodiversity-friendly practices and livelihoods for local communities, including women and IPs, will be shared with the relevant agencies for replication in the Manila Bay area. The project will organize bi-annual learning sessions and annual learning visits with DENR, the Manila Bay Mandamus Agencies and relevant stakeholders focused on Outcomes 4 and 5 of the OPMBCS and Priority Areas 3 and 4 of the MBSDMP.^[141] Under the guidance of the multi-stakeholder platform, policy recommendations will be made for enhancing biodiversity mainstreaming, integrated landscape management, sustainable livelihoods and COVID-19 recovery for effective implementation of the MBSDMP and PDPFP, as well as and local development and investment plans. This will ensure that knowledge generated by the project feeds into policy formulation. Recommendations will also be made for the development of an updated Operational Plan for the Manila Bay Coastal Strategy (OPMBCS) and the Bataan Sustainable Development Strategy. The project will also advocate on the issue of harvesting permits within the PAs, NGPs and CBFMAs for non-timber forest products (NTFPs), as well as issues of tenure for non-tenured migrants.^[142]

185. Activities under this Output will include:

- ? Activity 1. Organize bi-annual learning sessions and annual learning visits with DENR, the Manila Bay Mandamus Agencies and relevant stakeholders focused on Outcomes 4 and 5 of the OPMBCS / 3 and 4 of the MBSDMP.
- ? Activity 2. Formulate policy recommendations for enhancing biodiversity mainstreaming, integrated landscape management, sustainable livelihoods and COVID-19 recovery for effective implementation of the MBSDMP and PDPFP. Recommendations will also be made in view of updating of the OPMBCS and the Bataan Sustainable Development Strategy.

Output 3.1.3: *Effective monitoring and evaluation framework, incorporating gender mainstreaming and safeguards, developed and implemented to strengthen project effectiveness.*

186. This Output will involve the development and validation of a gender-responsive project M&E strategy with clearly defined expected results and timeframes for achieving it. Indicators and targets will be reviewed periodically, and the project will practice adaptive planning and management. The project's Theory of Change, including the separate Theory of Change on Scaling and Durability, as well as the assumptions will be regularly reviewed and validated with stakeholders during implementation. Livelihood benefits and other assumptions of the Theory of

Change will be monitored. This will also involve progressive monitoring of expected changes in practices and behaviour, such as agricultural, harvesting, ecotourism, fishing and settlement practices. The project team will formulate learning questions to validate the logic of the results chain for a behaviour change ? increased knowledge leads to change in attitude and ultimately to change in behaviour ? and will test if these assumptions will hold in the project sites. If necessary, the intervention strategies will be adjusted. This output will also include the implementation of the Gender Action Plan, Stakeholder Engagement Plan, and Environmental and Social Management Framework (ESMF), including the Indigenous Peoples? Plan and FPIC. Beneficiary surveys will be conducted periodically to monitor the local livelihood benefits.

187. For the monitoring of livelihood benefits, the project may leverage the existing Socio-economic Assessment and Monitoring System (SEAMS)[1] as well as the BDFE appraisal tool being implemented by the DENR for (a) characterizing the socio-economic condition of the PA occupants/beneficiaries of the BDFE interventions; (b) determining the degree of dependence of the occupants to natural resource extraction as livelihood sources, and (c) determining the effectiveness of the BDFE interventions.

[1] DENR-BMB Technical Bulletin No. 2016-06: Guidelines on Socio-Economic Assessment and Monitoring System in Protected Areas.

188. Activities under this Output will include:

- ? Activity 1. Establish PMU and organize inception workshop
- ? Activity 2. Lead effective project coordination and M&E, including adaptive planning and management.
- ? Activity 3. Prepare and submit quarterly financial report, six-monthly Project Progress Reports (PPRs), annual Project Implementation Review reports (PIRs), and Terminal Report.
- ? Activity 4. Monitor and report on the implementation of the project?s Gender Action Plan, Stakeholder Engagement Plan, and Environmental and Social Management Framework (ESMF).
- ? Activity 5. Organize annual national PSC meetings.
- ? Activity 6. Undertake project mid-term review and final evaluation.
- ? Activity 7. Formulate project?s exit strategy with all concerned stakeholders.

4) Alignment with GEF focal area and/or Impact Program strategies and FAO comparative advantage

Alignment with GEF focal area strategies

189. The project is aligned with the GEF-7 Biodiversity focal area, specifically with focal area program BD 1-1 *Biodiversity mainstreaming in priority sectors*, and the Land Degradation focal area, specifically with focal area program LD 1-1 *Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)*. The project will mainstream biodiversity and natural resources management and conservation into the various sectors of the project area, including the Local Government Units (LGUs), local communities, the private sector, and other key stakeholders. The project area includes a vast forestland inside and outside two Protected Areas (mostly with open access forests), and about 177 km of coastline. The project will prioritize the review, validation, and implementation of existing land use frameworks of the LGUs and other relevant plans and programs, including community-managed areas, with the strong participation of all key stakeholders. These frameworks are expected to provide the needed connectivity of the plans and program interventions for various ecological zones of the natural system from ridge to reef, in support of the Manila Bay Sustainable Development Master Plan (MBSDMP). Likewise, the project will be able to contribute to the

improvement of the PA management system through the direct involvement of the members of the Protected Area Management Boards (PAMBs) and local communities, including Indigenous Peoples, in the management and implementation of plans. Improvement in PA management will be gauged through the improvement in the parameters of the PA METT for the two PAs and other monitoring tools for the other biodiversity-rich areas outside the PAs. In the coastal and marine areas, the project will continue to involve key stakeholders in the monitoring and management of the mangroves, seagrasses, coral reefs, marine turtles, and fishery resources. Furthermore, the project will support operationalization of the recent Administrative Orders on Biodiversity-Friendly Enterprises (BDFEs) and Biodiversity-Friendly Agricultural Practices (BDFAPs) and related incentive mechanisms, with active involvement of key stakeholders, including local communities and Indigenous Peoples, women and youth. These will further contribute to biodiversity mainstreaming in the target landscape.

190. Regarding SLM, the project will work on the upscaling of existing models on soil and water conservation measures established through previous efforts within the production landscapes by the implementing agencies, in cooperation with the upland farmers and LGUs of Bataan Province, such as the ones started with the upland farmers in Dinalupihan and in Abucay. These models on soil and water conservation measures are applied in food production areas of the upland farmers; they include improving the capacities of upland farms to control or minimize soil, water and nutrient loss due to constant excessive soil erosion. These models, when applied properly, will benefit the ecological system resulting in improved delivery of expected ecological services. Additionally, agroforestry crops within these upland farms can supplement crop yields ensuring food availability and additional income for the upland farmers. Finally, as a co-benefit of the GEF investment, the project interventions are also expected to result in increased carbon sequestration contributing to the GEBs.

191. With the harmonized land use plans that mainstream biodiversity and SLM from ridge-to-reef, it is expected to have complementary programs and plans from the partner agencies, including various cross-cutting concerns, such as those pertaining to Information, Education and Communication (IEC) for the whole project site which involves all sectors of society. In addition, these programs and plans will be coordinated with the implementation of livelihood programs for the upland farmers, women, Indigenous Peoples, fisherfolks and other key stakeholders involved in conservation and sustainable management. At all levels, there will be appropriate capacity building activities and transfer of technologies that will happen throughout the whole project life to support biodiversity and SLM mainstreaming.

FAO comparative advantage

192. FAO is recognized globally for its work in addressing the root causes of hunger, food insecurity and malnutrition, including the additional challenges to natural ecosystems and food systems posed by climate change. FAO has significant experience in assisting countries in implementing sustainable land management (SLM), sustainable forest management (SFM) and sustainable fisheries and aquaculture. FAO is a well-known source of knowledge and of technical expertise that can be deployed pertaining to improved management practices such as conservation agriculture, agroforestry, water management, ecosystem-based approach to fisheries management, and restoration of degraded lands. Additionally, FAO has recently approved a Strategy on Mainstreaming Biodiversity across Agricultural Sectors (2020). The Strategy aims to support Member countries in mainstreaming biodiversity across their agricultural sectors, taking into account national priorities, needs, regulations and policies and country programming frameworks.^[143]

193. FAO has been working with the Government of the Philippines, civil society, community-based organizations and the private sector for over three decades to address challenges in the agriculture, fisheries and forestry sector. The joint efforts have included, among others, increasing sustainability in agricultural production, promoting value-adding practices and improved post-

harvest management, enhancing productivity, and increasing the resilience of agriculture-based livelihoods to disaster and climatic hazards.

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

194. *Without the project.* Without the GEF financing, the project will not be able to systematically mainstream biodiversity across sectors as well as landscapes and seascapes within Bataan Province to the Manila Bay area and will not be able to fully address direct drivers to prevent habitat loss and forest and land degradation in the project sites. Without the GEF intervention, the threats of further biodiversity loss and land degradation within the project sites will continue to prevail, and will be aggravated by climate change impacts, impacting the most vulnerable (i.e., IPs, women, the upland farmers, fisherfolks, and local communities), who are the beneficiaries and key stakeholders of this project, and are the key to sustainable management of watersheds. Under the unprecedented post-pandemic scenario, stakeholders' interests in environmental efforts may rise. However, resources allocations from the various national government agencies and the local government units for this project, including other support activities may be reduced, resulting from the unexpected priority expenditures of these agencies during the continuing lockdowns and enhanced community quarantine periods. It is, thus, important to align efforts to support biodiversity-friendly enterprise development and agricultural practices with investments in green recovery. Without the project, stakeholders will not be able to fully unlock the opportunities provided by the recent Administrative Orders on biodiversity-friendly enterprises and agricultural practices. Also, without the project, the local institutions and stakeholders will not be able to fully implement the MBSDMP and align it with efforts for biodiversity and SLM mainstreaming and socio-economic development.

195. *GEF Financing Incremental Cost.* With the GEF intervention, the government will be able to address existing gaps in biodiversity conservation and land degradation, building on the gains and lessons learned from previous related GEF-assisted projects. The project will be able to mainstream biodiversity across sectors as well as landscapes and seascapes and address direct drivers to protect habitats and species within Bataan Province to Manila Bay area. With the GEF financing, the project will strengthen, encourage, and sustain the participation and active engagement of key stakeholders, project partners, and private sector in biodiversity conservation and management in line with the existing and developed plans. Building on baseline investments in biodiversity management and monitoring and in the sustainable management of Manila Bay, the GEF incremental financing will ensure that more upstream interventions are implemented that support Outcomes 4 and 5 of the OPMBCS and Priority Areas 3 and 4 of the MBSDMP.[144] The project will help to develop a collaborative framework on biodiversity and ecosystem management to guide key actions of implementers, partners, and key stakeholders, and will review and validate the existing land use frameworks and other related sectoral programs of the partner LGUs and local communities. Working on natural systems requires clear connectivity of all plans, programs, and corresponding interventions, from the headwaters to the coastal and marine areas, which this project will be able to accomplish with its partners and key stakeholders. This project, with GEF's incremental financing, will be able to enhance partnerships and networks with the local, national, and international organizations, in addressing the barriers to proper and effective biodiversity conservation and management, as well as addressing land degradation within Bataan Province to Manila Bay. Biodiversity-friendly, sustainable and resilient livelihoods will be developed. Through these interventions, the project will contribute measurable global environmental benefits and livelihood benefits, as follows:

196. The baseline scenario, alternative scenario and GEF increment for each component are summarized below

Baseline scenario	GEF alternative scenario	GEF increment
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Component 1

In the baseline scenario, some LGUs in Bataan already have integrated land and sea use plans that incorporate biodiversity/protected area conservation. The Provincial Development and Physical Framework Plan (PDPFP) also already incorporates protection zones and production zones as well as the principles of Integrated Coastal Management (ICM). Additionally, the Manila Bay Sustainable Development Master Plan (MBSDMP) includes actions to protect key biodiversity areas, implement watershed rehabilitation, and implement locally protected marine protected areas (MPAs).

Moreover, guidelines have been developed under previous projects on mainstreaming biodiversity and sustainable land management (SLM) in the CLUPs. Finally, previous efforts have been undertaken to develop community-based management plans (CRMPs/ CRMFs/ ADSDPPs).

However, in the baseline, there is still a lack of harmonization of the various plans and systematic integration of biodiversity and SLM. Also, not all actions included in the MBSDMP already have identified funding, and they are not yet translated into action at the local level. Their implementation, monitoring and scaling needs additional technical and financial

In the alternative scenario, targeted support will be provided to develop capacity to harmonize local plans, integrate the MBSDMP objectives, and mainstream biodiversity and SLM in line with existing guidelines. Assessment capacity and data availability will be enhanced for both terrestrial and coastal/marine biodiversity, including forests and protected areas, as well as on land degradation. Monitoring capacity will also be enhanced.

Contribution from co-financing:

- DENR's Biodiversity Management Bureau, DENR Regional Office-III and Manila Bay Coordinating Office (MBCO) support to the implementation of the MBSDMP and revision of land use plans.
- Development and implementation of biodiversity monitoring system, BAMS, SEAMS, LAWIN, water quality monitoring.
- Investments in water quality monitoring and modelling by PCIEERD-DOST under the S&T Water Environment program.

- ? At least 10 revised land use plans/investment plans that are harmonized and mainstream biodiversity and SLM (of which, 2 CLUPs or CDP/PDPFP, 2 local investment plans/annual budgets, 1 local ecotourism plan, 2 FLUPs, and 3 of any of the following: CRMPs (of PACBRMAs); CRMFs (of CBFMAs); ADSDPPs (of IPs)).
- ? Multi-sectoral/multi-stakeholder platform established with women and men representation and meets regularly to monitor progress in meeting targets set out in the PDPFP and MBSDMP and provide guidance to the harmonization process.
- ? 250 staff (50% women) of DENR and provincial and municipal LGUs trained and participating in watershed hydrology or land degradation assessments or coastal management strategies.
- ? At least 50 staff (50% women) of DENR and provincial and municipal LGUs trained in biodiversity monitoring systems (IIMS, BAMS, LAWIN, water quality monitoring), at least 50% of which will use the systems following the training.

Component 2

<p>In the baseline, biodiversity-rich areas of Bataan (in particular, forests and coastal/marine areas) are under threat, and land and forests are being degraded from unsustainable practices. Furthermore, the COVID-19 pandemic has exacerbated the livelihood challenges in Bataan, and climate change is further contributing to land degradation and vulnerability of livelihoods and ecosystems. Several initiatives have been implemented to improve soil and water management, sustainable forest management, and sustainable livelihoods (including DENR, DA, DOST, DTI, DOT, and universities, among others). National Greening Programme (NGP) sites have been established. Also, the two PAs in the project area have recently developed updated PA management plans, which include considerations for sustainable livelihoods. The recently developed Administrative Orders on BDFEs and BDFAPs (the latter still pending approval) provide a good basis for the development of biodiversity-friendly livelihoods in and around the PAs and in the wider landscape.</p>	<p>The GEF alternative aims to build on the successful pilots in Bataan and elsewhere to scale up sustainable land management (SLM) and land use practices that protect biodiversity while contributing to sustainable livelihoods. The project will also contribute to green recovery by providing resilient approaches to biodiversity-based livelihoods, and will support implementation of the recent DAOs in Bataan. The project will strengthen livelihoods and engagement of Indigenous Peoples in the management of biodiversity. Finally, the project will strengthen community organizations/POs to build long-term institutional capacity for sustainability of its interventions and as a basis for scaling and replication.</p>	<ul style="list-style-type: none"> ? 3,591.5 ha of land/sea under biodiversity-friendly agriculture, forest and fisheries management practices that reduce threats to biodiversity and minimize land degradation. ? 830 farmers and fisherfolks (47% women) practicing sustainable natural resource management/ BDFAPs / restoration (agriculture, forestry, fisheries, agroforestry) (of which 130 Indigenous Peoples (IPs)). ? At least 5 Peoples? Organizations (POs) strengthened or newly created practicing biodiversity-friendly livelihoods, of which at least 1 women?s group or youth group. ? At least 3 BDFEs recognized by DENR (out the 5 POs above), of which at least 1 IP group. ? 1,710 beneficiaries (50% women, at least 260 IPs) of livelihood/value chain interventions, contributing to COVID-19 recovery. ? At least 2 partnerships established with private sector actors such as for PES/carbon incentive schemes or ecotourism. ? At least 100 farmers (50% women, at least 20 IPs) in the selected project sites that practice soil and water conservation measures.
	<p>Contribution from co-financing:</p> <ul style="list-style-type: none"> - Technical assistance and some investments by DENR?s Biodiversity Management Bureau in the development of BDFEs and related capacity development. - BSWM investments in the reduction of nutrient load through the establishment of Integrated Upland Conservation Guided Farm via soil and water conservation technologies in techno-demo site. - Investments by the Provincial Government of Bataan in Integrated Upland Conservation Farms and Mangrove Rehabilitation. - FAO technical assistance in sustainable agriculture and risk- 	

<i>Component 3</i>		
<p>In the baseline, there is still limited knowledge and awareness among local stakeholders on the biodiversity values of Bataan, their protection status, and use rights. There is limited knowledge sharing and scaling of good practices in Bataan and within the Philippines.</p>	<p>The project will contribute to increased awareness of local stakeholders, as well as increased knowledge of biodiversity-friendly practices and livelihoods. Lessons learned and good practices will be shared within Bataan Province and beyond.</p> <p>Contribution from co-financing:</p> <ul style="list-style-type: none"> - DENR BMB staff time contribution for the dissemination of project results, including through existing communication channels and platforms such as the National Steering Committee for GEF projects in the Philippines. - DENR BMB Communication, Education & Public Awareness activities. - BSWM and other agencies' contribution to dissemination of project results and sharing of knowledge 	<ul style="list-style-type: none"> ? 9,750 stakeholders (50% women) reached by project Knowledge Management and Communication. ? 20% increase in awareness, knowledge, and capacity of project stakeholders as per Knowledge, Attitudes and Practices (KAP) survey. ? One (1) online portal on project learnings, exchange of good practices functional. ? Five (5) best practice documents prepared and disseminated. ? Two (2) events promoting replication and scaling at the provincial and national level.

Measurable Global Environmental Benefits	Targets
1. Core Indicator 1.2: Terrestrial protected areas under improved management effectiveness (hectares)	20,790.4 ha (Bataan Natural Park and Roosevelt Protected Landscape)
2. Core Indicator 3.1: Area of degraded agricultural lands restored	100 ha (farmland under soil and water conservation)
3. Core Indicator 3.4: Area of wetlands (including estuaries and mangroves) restored	17 ha (mangroves under community-based restoration/ management)
4. Core Indicator 4.1: Area of landscapes under improved management to benefit biodiversity (hectares; excluding protected areas (PAs))	69,176.6 ha [145] (includes 3,473 ha of on-the-ground interventions with local communities in PACBRMAs, CBFMAs, NGPs)

5. Core Indicator 5: Area of marine habitat under improved practices to benefit biodiversity (hectares; excluding PAs)	59,341 ha [146] (includes 1.5 ha of Abucay fish sanctuary)
6. Core Indicator 6: Greenhouse Gas Emissions Mitigated (metric tons of CO ₂ e)	575,990 tons of CO ₂ e (direct) 836,840 tons of CO ₂ e (indirect)
7. Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	10,000 (50% women)

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

197. The project is expected to bring a total of 149,425 ha of land and sea areas in Bataan under improved management to benefit biodiversity and foster sustainable land management. It will contribute to the GEBs under the following indicators: 1) 20,790 ha of terrestrial protected areas under improved management effectiveness, 2) 117 ha of degraded land restored (of which 17 ha of mangroves), 3) 69,176.6 ha of landscapes under improved management to benefit biodiversity, and 4) 59,341 ha of marine habitat under improved management to benefit biodiversity. Within these areas, the project is expected to contribute to the conservation of globally important biodiversity, including some of the few remaining old-growth forests in the Zambales Biogeographic Zone within Bataan Natural Park and Roosevelt Protected Landscape. It will help protect critically endangered tree species including the White Lauan (*Shorea contorta*) and Red Lauan (*Shorea negrosensis* Foxw.), as well as populations of threatened and restricted-range birds of the Luzon Endemic Bird Area such as the vulnerable Rufous Hornbill (*Buceros hydrocorax*) and the endangered Green Racquet-tail (*Prioniturus luconensis*). Furthermore, the project will promote the conservation of globally important waterbirds, as well as coral reefs, mangroves and other coastal habitats. It will contribute to the conservation of marine turtle nesting sites, by reducing threats such as sedimentation from the uplands into the coastal areas. Data and monitoring systems to monitor and improve management of globally important biodiversity will be strengthened.

198. In the area of land degradation, the project will implement soil and water conservation measures in the degraded upland agricultural areas and forestlands, including the rehabilitation of degraded riparian zones. Through these interventions, the project will generate global environmental benefits by reducing forest degradation, soil erosion and soil and water loss, as well as by maintaining or enhancing agro-ecosystem services that help sustain food production and local livelihoods. Finally, the project interventions are also expected to result in increased carbon sequestration from improved soil management, forest restoration, and agroforestry interventions, contributing to the GEBs. Additionally, the project will generate co-benefits for climate change mitigation by reducing greenhouse gas emissions from forest degradation and deforestation, and by increasing carbon sequestration through soil and water conservation and agroforestry. It is estimated that the project will mitigate 575,990 tons of CO₂e (direct) and 836,840 tons of CO₂e (indirect).

199. The project will employ participatory planning approaches in the harmonization of plans and biodiversity and SLM mainstreaming, involving partners and key stakeholders, including Indigenous Peoples, women, the private sector, and civil society. The project also includes awareness raising for its partners and key stakeholders, about the multiple values of biodiversity and needed steps to be undertaken in order to conserve and sustainably use these resources. The direct project intervention area, as shown in Figure 15, is summarized in the table below.

Municipality	Coastal Area (ha) Core Indicator 5[147]	Land Area (ha) Core Indicator 4[148]
Morong	30,770	21,920
Bagac	23,230	23,120

Orani	1,077	6,490
Samal	1,719	5,630
Abucay	2,545	7,972
Hermosa	-	15,700
Dinalupihan	-	9,252
Total	59,341	90,084*
Grand Total	149,425	

* Note: For Core Indicator 4 target, the BNP and RPL areas (Core Indicator 1) were deducted from this area to avoid double-counting.

7) Innovativeness, sustainability, potential for scaling up and capacity development

Innovativeness

200. As explained above, one of the key innovations of the project is the harmonization of local plans, their alignment with the Manila Bay Sustainable Development Master Plan (MBSDMP) along with mainstreaming of biodiversity/SLM into these local plans. The project is innovative by engaging multiple stakeholders at local to national scales in a 'ridge-to-reef' approach, building local capacity, ownership and awareness to all stakeholders. The highly participatory and bottom-up approach will serve as an important model for promoting cross-sector stakeholder engagement and public-private partnerships. The project will promote better integration across agencies, sectors and society to achieve the goals of the MBSDMP. The respective guidelines on biodiversity and SLM mainstreaming, developed under previous GEF projects will, for the first time, be implemented in Bataan Province and aligned with the MBSDMP and other local plans. This will be combined with increased awareness among local stakeholders of the biodiversity values of Bataan, as well as enhanced data and knowledge on biodiversity and sustainable land management in the project area.

201. Another key innovation of the project is the operationalization of two recent guidelines on biodiversity-friendly enterprises (BDFEs) and biodiversity-friendly agricultural practices (BDFAPs). These will be implemented in communities in and around Bataan Natural Park and Roosevelt Protected Landscape as well as the coastal areas and will directly support the implementation of the various plans and the mainstreaming of biodiversity and SLM. This also involves strengthened capacities of local institutions, including LGUs and POs to support and scale up implementation of biodiversity-friendly practices, including through market and other incentives.

Sustainability

202. The key elements for sustainability proposed in this project are: a) the strong support, participation, and commitment of public and private sector stakeholders; b) the existence of organizations with relevant mandates at sub-provincial to national levels; c) an already existing network of Peoples' Organizations (POs) that can be tapped into and strengthened; d) the presence of harmonized plans and resource frameworks that incorporate biodiversity and SLM objectives; and, e) the improved technical capacity of the provincial LGUs with support from DENR-BMB and DA-BSWM. The incorporation of biodiversity and SLM into local plans and investment frameworks ensures investments in biodiversity and sustainable livelihoods can extend beyond the project's lifetime. This will be further supported by enhanced capacity for monitoring and implementation, increased engagement of local stakeholders in the development and implementation of plans, along with strengthening of tenurial instruments such as the CBFMAs and PACBRMAs. The existence of the two recent Administrative Orders on BDFEs and BDFAPs will further help institutionalize the adoption of the capacity building supported by this project. Regarding financial sustainability, USD 17.1 million in co-financing is being provided by government partners indicating long-term commitments. In addition, both the DENR-BMB and the DA-BSWM have major roles in the implementation of the existing Operational Plan for the Manila Bay Coastal Strategy (OPMBCS) and the MBSDMP and are likely to provide continued support to

project activities. Incentive systems such as market linkages and payments for ecosystem services/carbon incentive schemes will be developed and capacity built for their scaling, incorporating considerations for Post COVID-19 recovery and potential future shocks.

203. The innovative approaches that this project will employ will be the key to the project's sustainability that will bridge the project implementation to the next phase beyond this highly expected GEF-7 assistance. This is guided by the partnership and engagement protocols with the private/business sector and the mandated agencies, such as, the LGUs/DILG, the DENR, the DA, and the NCIP, to fully support the implementation of this project, even beyond the GEF-7 assistance period.

Potential for scaling up

204. The project has great potential for scaling up lessons and best practices through several key partnerships. Partnerships will be established between LGUs, private companies and local communities, and POs and producer associations will be capacitated to help scale up innovations and best practices in the future. Extension services and community outreach by LGUs, DENR and DA will be strengthened, laying the foundations for replication and scaling of good practices within Bataan and beyond. The project is aligned with the OPMBCS and especially the MBSDMP, which can serve as a means to promote the lessons and tools from this project throughout its extensive regional coverage, as well as nationally through the capacity building of the mandated government agencies. The project is highly relevant to the League of LGUs, which will also share the project's lessons and good practices. Areas of particular relevance to other landscape projects considering how to mainstream biodiversity are: a) the ecosystems-based and cross-sectoral framework in which the LGUs take a major role in project implementation; b) the ridge-to-the-reef approach engaging various stakeholders in the harmonization of plans and biodiversity/SLM mainstreaming; c) participatory monitoring and assessment tools for the important biodiversity and natural resources within and outside the protected areas and the seascapes; d) the soil and water conservation measures with upland and coastal farmers, CSOs, IPs/ICCs, and local communities; e) the biodiversity-friendly agricultural practices and enterprises and value chain; f) the marine turtles program and network; and g) the participatory biodiversity and environment-related planning processes involving key stakeholders, including the IPs, women and youth. At all levels, there will be appropriate capacity building activities and transfer of technologies that will happen throughout the whole project life, supporting replication and scaling up after the project ends. Finally, the project will foster sharing and dissemination of knowledge and best practices to increase awareness of local stakeholders of the biodiversity values of Bataan, and in the process, will aim to reach a critical mass of stakeholders for scaling and replication of sustainable livelihoods.

205. A separate Theory of Change for Scaling and Durability has been developed and is shown in Figure 14 above. The strategies for scaling and durability are drawn from the various project outputs and activities. In particular, the project aims to empower, incentivize and capacitate stakeholders. Through the proposed interventions, it is anticipated that the desired changes in practices and behaviours will be achieved at the required scale and in a durable way. The relevant budget items for activities related to scaling and durability are shown in the table below.

Budget items related to scaling and durability	Timeline	Budget
1. Technical assistance for analysis and updating/harmonization of plans, including community-based/participatory mapping where relevant	Years 1-3	200,000
2. Stakeholder consultations for revision / harmonization of plans	Years 1-3	30,000
3. Technical assistance in 7 target municipalities (training, awareness raising, consultation meetings) for the implementation of existing or updated plans	Years 1-3	105,000

4. Technical assistance for field implementation of Output 2.1.2 on BDFAPs, NRM and restoration, including on-farm demonstrations and dissemination/scaling	Years 1-4	50,000
5. Technical assistance and provision of training for implementation of Output 2.1.3 on BDFEs	Years 1-4	40,000
6. Technical assistance for market linkages of BDFE and other community-based products (Output 2.1.4, including marketing, development of supply and value chains, etc.)	Years 1-3	20,000
7. Training workshops (provincial and local)	Years 1-4	28,000
8. Knowledge and communications events, conferences, cross-site visits, etc.	Throughout project implementation	50,000
9. Knowledge products and communications	Throughout project implementation	23,500
10. Participatory meetings for adaptive learning and management, review of Theory of Change and assumption	Throughout project implementation	6,400
Total Budget		USD 552,900

Capacity development

206. The project will enhance systemic, institutional and individual capacities at various levels. First, it will help build systemic capacity by harmonizing local plans and by mainstreaming biodiversity and SLM into existing plans and investments. Second, it will enhance capacity of local institutions, including LGUs, Protected Area administrations and provincial institutions to align and harmonize biodiversity conservation objectives and sustainable land management, and implement them in a participatory approach. It will enhance the capacity of DENR and relevant stakeholders for GEB mainstreaming and implementation of the OPMBCS and MBSDMP by building capacity on biodiversity and land degradation assessments and coastal management strategies. Local community institutions, Peoples? Organizations, and private sector associations will also be strengthened. Finally, individual capacity will be strengthened through training and on-the-ground implementation of biodiversity-friendly practices and livelihoods. Please also refer to *Section 4) Alternative scenario*, Table 3, on an overview of training activities under the project.

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

207. No significant changes were made to the project design. However, several aspects were made clearer and suggestions from GEFSEC and STAP were incorporated into the project design. The project interventions and Theory of Change were elaborated in more detail based on the consultations with relevant stakeholders, including community representatives, as well as consultation with GEF STAP during PPG. The main adjustments are highlighted below.

Topic	Main changes from PIF stage
1) Project duration	The duration of the project was changed from 36 months to 48 months (4 years), as this is considered necessary to achieve the project's outcomes and objective.

2) Core Indicator targets

The Core Indicator targets were reassessed and revised based on the detailed baseline analyses and consultations. The assumptions based on which the PIF targets were based had to be revised during PPG stage. Total area under improved management was reduced from 242,429 ha at PIF stage to 149,425 ha at CEO endorsement. Please refer to the table below for details.

The area of Bataan Natural Park (BNP) was revised based on official figures. Regarding the five locally protected MPAs/fish sanctuaries indicated under Core Indicator 2 at PIF stage, most are currently inactive, they do not have a management plan nor a METT assessment, and they are very small in size. In consultation with stakeholders, it was decided to primarily focus on Abucay fish sanctuary (which only covers 1.5 ha as opposed to 500 ha indicated in the PIF), and to move this target from Core Indicator 2 to Core Indicator 5.

Core Indicator 3 target, which at PIF stage covered the entire sea area of Bataan (municipal waters spanning 15 km from the coastline), was considered inaccurately calculated. Instead, the sea area was moved to Core Indicator 5 and was more realistically assessed based on a more plausible area of influence of the project (i.e., the sea area of the seven target LGUs). Core Indicator 3 target on area of land restored was added. Core Indicator 4 target, instead of covering the entire forest area of Bataan, now covers the entire area of the seven LGUs that is expected to be under improved management following the updating and enhanced implementation of land use plans.

The Beneficiaries target (Core Indicator 11) remains unchanged at 10,000 (50% women).

In parallel, the project's intervention areas and site selection criteria were elaborated in more detail, as explained in *Section 3) Proposed alternative scenario*. In addition to the municipalities that connect to Manila Bay, it was decided to also include those adjacent to the West Philippine Sea (Bagac and Morong), as they present high biodiversity areas including forests, coral reefs, seagrasses and turtle nesting sites, and they also include important CBFMA areas and overlap with BNP and RPL.

3) Outputs and Outcomes

The wording and content of the Outputs and Outcomes was clarified, in line with the revised Theory of Change. In particular, it was clarified that Component 1 is focused on planning and capacity for assessments and monitoring, while Component 2 is focused on on-the-ground interventions with local stakeholders of sustainable, biodiversity-friendly livelihoods and land management. Under Output 1.1.1, it was clarified that the multi-sectoral platform should also be multi-stakeholder. Also, the platform will be focused on Bataan Province as this is considered the main gap to be filled by the project in order to achieve the project's outcomes. Under Component 1, the overarching role of an integrated watershed management plan was replaced by existing overarching frameworks including the Manila Bay Sustainable Development Master Plan (MBSDMP) and the Provincial Development and Physical Framework Plan (PDPFP). It was discovered during the PPG stage that a governance structure or mechanism for Almacén and Talisay watersheds are not in place yet. Also, it was considered during PPG that establishing new management mechanisms/plans for these watersheds might move attention away from existing framework plans including the MBSDMP and PDPFP. Accordingly, PIF Output 2.1.4. on developing integrated landscape management plans for Almacén and Talisay watersheds was removed. Nevertheless, under Output 1.1.2, the project will organize consultations to discuss potential establishment of a governance mechanism for these two watersheds and, if deemed appropriate, the project will provide technical assistance to develop such mechanism. Additionally, watershed rehabilitation and management, including the ridge-to-reef approach, will be integrated and implemented as part of the existing land use planning framework. Hydrological assessments will be conducted of Talisay and Almacén watersheds, which will be incorporated into the updated plans.

Regarding harmonization and biodiversity mainstreaming, a detailed analysis was conducted of existing plans, and Output 1.1.3 targets were adjusted accordingly. In particular, it was found that most CLUPs extend until 2027-28; thus, they will not be up for renewal during the project period. Additionally, many of these CLUPs already incorporate biodiversity/conservation objectives and some already integrate land and sea use planning. The PA Management Plans of both BNP and RPL were recently developed and are currently being finalized, and they already sought alignment with the local land use plans (CLUPs) and forest land use plans (FLUPs). Instead, the project considered other plans that will also be important mechanisms for biodiversity/SLM mainstreaming and harmonization, including the Comprehensive Development Plans (CDPs) and Annual Investment Plans (AIPs), along with the Community Resource Management Plans. Importantly also, the project will support implementation of existing plans, through consultations, training, and technical assistance.

Under Component 2, the differentiation between the various Outputs has been made clearer. Output 2.1.1 focuses on the training of local stakeholders, while Output 2.1.2 is focused on the implementation of BDFAPs, community-based NRM, and restoration. Output 2.1.3 is focused on BDFEs, and Output 2.1.4 is on market incentives/investments. Finally, Output 2.1.5 is focused on soil and water conservation in line with the recent pilots implemented by DA-BSWM. Considerations on climate change and COVID-19 resilience and recovery were also incorporated in the project's Outputs.

4) Project objective	<p>The project objective was revised as follows based on a STAP comment and based on an improved understanding of the KBA areas in Bataan:</p> <p><u>From:</u> To mainstream biodiversity and sustainable land management in key biodiversity areas along Bataan province to Manila Bay.</p> <p><u>To:</u> To mainstream biodiversity and sustainable land management in and around key biodiversity areas along Bataan province to Manila Bay while improving secure and diversified local livelihoods.</p>
5) Global environmental problem, barriers and root causes	The description of the global environmental problem, barriers and root causes were revised and elaborated in more detail based on the baseline analyses and consultations during PPG.

Changes in Core Indicator targets:

	Targets from PIF	Proposed adjustments during PPG
Core Indicator 1 ? Terrestrial Protected Areas under improved management	19,211 ha (BNP + RPL)	20,790.4ha (BNP and RPL official figure)
Core Indicator 2 ? Marine Protected Areas under improved management	591.7 ha (includes 5 MPAs)	- (does not meet Core Indicator definition)
Core Indicator 3 ? Area of land restored (including mangroves, estuaries)	176,408 ha (mostly involves Bataan municipal waters, area of influence of upstream interventions)	100 ha of agricultural land restored 17 ha of mangroves under improved management/restoration
Core Indicator 4 ? Area of landscapes under improved management to benefit biodiversity (excluding PAs)	46,218 ha (counted as total forestland in Bataan outside the PAs)	69,176.6 ha (total land area of 7 target LGUs, minus the other Core Indicator targets to avoid double-counting), of which 3,473 ha of on-the-ground interventions with local communities
Core Indicator 5 ? Area of marine habitat under improved practices to benefit biodiversity (excluding PAs)	n/a	59,341 ha (total area of municipal waters of 7 target LGUs)
Total area under improved management	242,429 ha	149,425 ha

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<http://pemsea.org/publications/manuals-guides-and-webinars/guide-establishing-integrated-information-management-system-coastal>
- [109] <https://sgp.undp.org/spacial-itemid-projects-landing-page/spacial-itemid-project-search-results/spacial-itemid-project-detailpage?view=projectdetail&id=4508>
- [110] OPMBCS 2017-2022. Manila Bay Region Critical Habitats/Ecosystems and Resources Management 2017 cluster reports of DENR NCR, R4A, and R3.
- [111] Integrated Environmental Monitoring Program. Prepared by the Multi-Agency Technical Working Group of the Manila Bay Environmental Management Project. 2006.
- [112] OPMBCS 2017-2022. Manila Bay Region Critical Habitats/Ecosystems and Resources Management 2017 cluster reports of DENR NCR, R4A, and R3.
- [113] NEDA (2020). MBSDMP. Annex 7 Community Focus Group Discussion (FGD) Report.
- [114] NEDA (2020). MBSDMP. Annex 7 Community Focus Group Discussion (FGD) Report.
- [115] This is a combination of private and public land where there are agriculture and forest areas identified for this initiative. It is a collaboration project of DENR and DAR.
- [116] Flores, R. C. et al. (2015). BFAR-CHED Philippine National Aquasilviculture Program (PNAP) in Bataan.
<http://repository.seafdec.org/handle/20.500.12066/3988>
- [117] <https://www.rti.org/impact/sustainable-conservation-biodiversity-philippines-sibol>
- [118] BSWM (2013). Land Degradation in the Philippines. LADA Project. UNFAO. 171 pages.
https://www.academia.edu/23584038/Land_Degradation_Assessment_LADA_in_the_in_the_Philippines_The_BSWM_FAO_Technical_Cooperation_Final_Report
- [119] <https://www.dti.gov.ph/pab/pab-news/dti-pab-and-denr-fmb-strive-collaboration-on-cavcs-for-forest-carbon-projects/>
- [120] Lasco, R.D. et al. (2013). Lessons From Early REDD+ Experiences in the Philippines. International Journal of Forestry Research.
<https://www.hindawi.com/journals/ijfr/2013/769575/>
- [121] Lasco, R.D. et al. (2010). Payments for Ecological Services: Experiences in Carbon and Water Payments in the Philippines
https://www.researchgate.net/publication/323718415_4_Payments_for_Ecological_Services_Experiences_in_Carbon_and_Water_Payments_in_the_Philippines
- [122] Including biodiversity and sustainable land management (SLM) mainstreaming.
- [123] Depending on the status of Abucay CLUP at the start of the project, the project will support 1 or 2 CLUPs (Dinalupihan and Abucay, which are up for renewal during the project?s period). As

an alternative, the project would target a Comprehensive Development Plan (CDP) and/or the Provincial Development and Physical Framework Plan (PDPFP).

[125] Global Environmental Benefits, in particular biodiversity and sustainable land management (SLM)

[126] To be selected among the seven (7) main target municipalities, Hermosa, Orani, Samal, Abucay, Dinalupihan, Bagac, and Morong.

[127] Such as PENRO, Provincial Agriculture Office, NCIP.

[128] The focus will be on the seven (7) municipalities that present overlap with BNP/RPL (i.e., Hermosa, Orani, Samal, Abucay, Dinalupihan, Bagac, and/or Morong). Updating of plans will likely involve: Dinalupihan CLUP (due for renewal in 2025); Abucay CLUP depending on the status at the beginning of the project (up for renewal in 2019); as well as other plans in Bagac (because of CBFM/CRMF, ADSDPP, FLUP, Marine Turtle), Abucay (CRMP/ICMP/Integrated Land and Water Use), Hermosa (because of ADSDPP, FLUP, and ICMP/CRMP), and/or Morong (because of FLUP, ADSDPP, Marine Turtle, ICMP/CRMP).

[129] See also <https://icca.ph/view-icca-site/?id=12>.

[130] Please refer to paragraph 104 and 105 for details on the existing guidelines (including on BD/SLM mainstreaming in the CLUPs and on Integrating Biodiversity into ADSDPP Processes). As explained in Box 9, in the context of Bataan, biodiversity mainstreaming involves, in particular, (1) incorporation of PA objectives and biodiversity-friendly livelihoods in and around PAs/KBAs, including conservation of threatened species; (2) protection, restoration and sustainable management of forests; (3) the conservation and sustainable use of coastal biodiversity such as mangroves, coral reefs, seagrasses, mudflats that are important for migratory birds, fisheries, turtle nesting sites; (4) preservation of ecosystems and their goods and services, including in agro-ecosystems, highlighting the Ridge-to-Reef connectivity of the ecosystems; and (5) the integration of biodiversity and sustainable land management into policies, plans and strategies.

[131] Protected Area Management Boards (PAMBs), Biodiversity Management Bureau (BMB), Bureau of Soils and Water Management (BSWM), Bureau of Fisheries and Aquatic Resources (BFAR), Department of Trade and Industry (DTI), Bataan Peninsula State University (BPSU).

[132] Please refer to Box 1 for a definition of BDFEs and BDFAPs. In the context of the project, BDFAPs are likely to involve but are not limited to agroforestry, organic farming, conservation agriculture, establishment of windbreaks, bamboo planting and fencing for riverbank stabilization and flood control, minor check dams to retain excess water flow and recharge groundwater, etc. It also involves interventions in the coastal area including community-based ecological mangrove restoration, and sustainable aquaculture and fisheries management, to ensure least disturbance to the biodiversity of the wider landscape and seascape.

[133]

<https://www.g-fras.org/en/world-wide-extension-study/94-world-wide-extension-study/asia/south-eastern-asia/316-philippines.html#extension-providers>

[134] <https://ntfp.org/wp-content/uploads/2020/10/Developing-Guidelines-brochure-FINAL-3-web-version-1.pdf>

<https://ntfp.org/wp-content/uploads/2020/10/ASEAN-Gap-Analysis-for-NTFP-Standards-Final.pdf>

<https://asean.org/wp-content/uploads/20.-ASEAN-NTFP-Guidelines-Final.pdf>

[135] At least for the officially recognized BDFEs. Nature-based enterprise development has been practiced for a long time, but it needs to be revived and scaled up.

[136] Global Environment Facility - Small Grants Programme 5 (GEF-SGP5). (2020). Scaling Up Biodiversity Friendly Enterprises. Philippines: GEF-SGP5.

<https://bmb.gov.ph/index.php/e-library/publications/references?download=461:sgp5-scaling-up-biodiversity-friendly-enterprises&usg=AOvVaw0mfZs2-pMM-AiR6k1khHWV>

<https://bmb.gov.ph/index.php/e-library/publications/references?download=461:sgp5-scaling-up-biodiversity-friendly-enterprises&usg=AOvVaw0mfZs2-pMM-AiR6k1khHWV>

(retrieved

September 2021)

[137] Youth organizations or young fisherfolks, farmers, or women's groups.

[138] DENR, PCW (2013). Gender-Responsive Toolkit on Ecotourism Planning and Management.

<https://bmb.gov.ph/index.php/e-library/publications/references?download=367:gender-responsive-toolkit&start=20>

[139] See also FAO-Intergovernmental Technical Panel on Soils (2020). Protocol for the Assessment of Sustainable Soil Management.

http://www.fao.org/fileadmin/user_upload//GSP/SSM/SSM_Protocol_EN_006.pdf and

FAO (2017). Voluntary Guidelines for Sustainable Soil Management. <http://www.fao.org/3/bl813e/bl813e.pdf>

[140] Such as the UNDP GEF-7 *Securing Long-Term Sustainability of Multi-functional Landscapes in Critical River Basins of the Philippines?*, the CI GEF-7 *Philippine Rise Integrated Conservation for Enduring Legacies through Ecosystem Support Services?*, and the UNDP GEF-6 *Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries (PEMSEA)?* projects.

[141] Outcomes 4 and 5 of the OPMBCS: 4) Soil loss in Manila Bay watershed reduced; 5) Existing biodiversity areas within Manila Bay Region protected and conserved. Priority Areas 3 and 4 of the MBSDMP: 3) Reduce exposure of people, livelihood, and properties to flooding (including Rehabilitate Watershed Areas in the Manila Bay Area); 4) Conscientiously restore healthy and vibrant natural habitats and ecosystem.

[142] By applying the principles of FAO's Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT) <http://www.fao.org/tenure/voluntary-guidelines/en/>

[143] <http://www.fao.org/3/ca7722en/CA7722EN.pdf>

[144] Outcomes 4 and 5 of the OPMBCS: 4) Soil loss in Manila Bay watershed reduced; 5) Existing biodiversity areas within Manila Bay Region protected and conserved. Priority Areas 3 and 4 of the MBSDMP: 3) Reduce exposure of people, livelihood, and properties to flooding (including Rehabilitate Watershed Areas in the Manila Bay Area); 4) Conscientiously restore healthy and vibrant natural habitats and ecosystem.

[145] Based on total land area of 7 target LGUs = 90,084 ha minus 20,790.4ha and 117 ha to avoid double-counting with Core Indicators 1 and 3.

[146] Based on total area of municipal waters of 7 target LGUs = 59,341 ha.

[147] Source: Calculation by PPG team based on PDPFP maps.

[148] Source: PDPFP 2019 ? 2025.

1b. Project Map and Coordinates

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

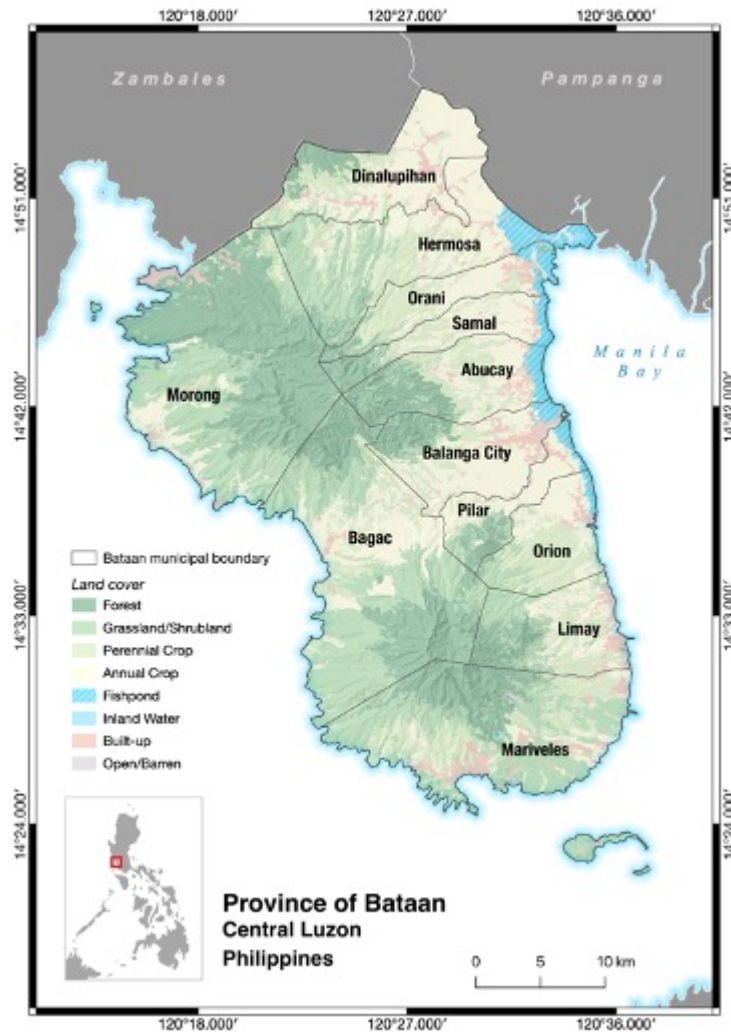


Figure 1. Map of Bataan Province and Relative Location within Manila Bay and the Philippines
 Source: Provincial Government of Bataan, Philippines, 2020; DENR BMB, 2020

Province	Municipality	Geo-coordinates
Bataan	Hermosa	N 14° 49' 1" E 120° 27' 21"
	Orani	N 14° 48' 0" E 120° 30' 0"
	Samal	N 14° 46' 0" E 120° 29' 0"
	Abucay	N 14° 43' 17" E 120° 29' 14"
	Dinalupihan	N 14° 52' 14" E 120° 26' 52"
	Bagac	N 14° 35' 0" E 120° 25' 0"
	Morong	N 14° 42' 0" E 120° 20' 0"

1c. Child Project?

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

not applicable

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

209. A series of consultations were held during PIF development with the Biodiversity Management Bureau of the Department of Environment and Natural Resources (BMB-DENR) and the Bureau of Soils and Water Management of the Department of Agriculture (BSWM-DA), who are both part of the technical working group in the implementation of the Operational Plan for the Manila Bay Coastal Strategy (OPMBCS) 2017-2022. At the local level, online consultations were held with DENR field offices as well as with representatives both from the provincial and local governments of Bataan. In total, 10 online consultations were undertaken during the PIF development. Detailed stakeholder consultations were conducted during PPG. The stakeholders include the DENR-BMB, DA-BSWM, NEDA, DILG, HLURB, and NCIP, civil society organizations (CSOs), environmental NGOs operating within the proposed project site, women organizations, private sector, academe, the chamber of commerce of Bataan, upland farmers, fisherfolks, women, and Indigenous Peoples (IPs). Due to the COVID-19 related restrictions, most of these consultations were held online.

210. A detailed Stakeholder Analysis and Stakeholder Engagement Plan is included in [Annex I2](#). An Indigenous Peoples Plan (IPP) was also prepared during PPG (see [Annex J](#)) and will be finalized in consultation with the concerned IP communities and IP Mandatory Representatives at the beginning of project implementation. The project will make sure that the social safeguards protocol, as defined in the Indigenous Peoples Rights Act (IPRA) or Republic Act 8371 (RA 8371), will be satisfied and the National Commission on Indigenous Peoples (NCIP) will be directly involved in areas where the IPs/ICCs are present. Likewise, the women's groups, CSOs and environmental NGOs, business sector, academe, along with the mandated agencies, operating within the project site will be involved.

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

211. The table below summarizes the main methods for consultation and engagement of different stakeholder groups during project implementation, at both national and local levels. Knowledge management activities under Component 3 will ensure meaningful participation by all target stakeholders, and dissemination of relevant and timely knowledge, good practices and lessons learned. In addition, a grievance redress mechanism has been defined for project stakeholders (see Annex I2).

Stakeholder group	Methods for consultation and engagement	Frequency
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1. National and local government (province and municipalities/ city)	The following methods will be the main channels for communication with government stakeholders. ? Email, phone, text messages and virtual/face-to-face meetings ? Workshops ? Project reports (for key government partners such as DENR-BMB, MBCO and DA-BSWM) ? Project knowledge products and website	At least monthly with local government; quarterly with national government and their regional counterparts
2. Local communities and community groups, including IPs, women, youth and vulnerable groups	The project will communicate with local communities mainly through the project's field coordinators, partners, and local government. The main channels used will be face-to-face meetings, phone calls and text messages, as well as IEC materials. IPs will be engaged in accordance with the Indigenous Peoples' Plan (IPP). A comprehensive IP consultation process involving all IP communities and IP Mandatory Representatives (IPMRs) in the 7 target LGUs will be undertaken at project inception. This will be an opportunity to review the draft IPP and agree on IP site/community selection process for the project.	Continuous
3. Civil society and academe	The main channels used for communication with civil society and academe are the following: ? Email, phone, text messages, meetings ? Workshops	At least bi-annually; some organizations more frequent if they will be contracted by the project
4. Private sector	Private sector actors, including Peoples' Organizations and farmers'/fisherfolk associations, will be engaged primarily through meetings, workshops, phone calls and text messages.	At least bi-annually; some organizations more frequent if they will be contracted by the project
5. Regional and international organizations, development partners	Regional and international organizations and development partners will be kept informed through the project's knowledge products and website, as well as workshops and participation in events. Exchange of knowledge with other initiatives, in particular GEF-funded projects, will be fostered by the project.	At least annually

212. In the annual project reports, the project implementation team will report on the following indicators:

- 1) Number and diversity of stakeholders - government agencies, civil society organizations, private sector, vulnerable groups, women and other stakeholder groups that have been involved in the project implementation phase and their level of engagement/participation.
- 2) Number of engagements (such as meetings, workshops, official communications) with stakeholders during the project implementation phase.
- 3) Number of grievances received and responded to/resolved (see Grievance Redress Mechanism described in the section below).

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain) Yes

213. Peoples? Organizations and other civil society organizations will be among the key beneficiaries of the project, in particular for the interventions on biodiversity-friendly enterprises and agricultural practices (BDFEs and BDFAPs) under Component 2. Civil society organizations will also be closely engaged in the harmonization of land use plans and biodiversity/SLM mainstreaming into local plans. They may also be engaged as Service Providers under the various outputs.

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

214. A Gender Analysis and Action Plan was developed during the PPG phase to understand the gender-differentiated roles, responsibilities and knowledge and identify project activities that will contribute to gender equality and women?s empowerment.

215. Numerous enabling policies, guidelines and mechanisms to close the country?s gender gap have been enacted and institutionalized such as the Magna Carta of Women (MCW), Philippine Plan for Gender-Responsive Development 1995?2025, and the Women in Development and Nation Building Act. In particular, indigenous women?s customary rights to the land, including access to and control of the fruits and benefits, their indigenous practices on seed storage and cultivation, as well their roles as knowledge holders are also protected under the MCW. The law further mandates government agencies to provide economic opportunities for indigenous women, particularly access to market for their produce. Gender has also been well mainstreamed in the Philippine Biodiversity Strategy and Action Plan (PBSAP) 2015-2028 through articulated objectives such as the integration of gender assessments in biophysical and socio-economic baselines, monitoring and evaluation and reports; gender-sensitive management plans; and biodiversity-friendly and gender-sensitive sustainable livelihoods.

216. Nevertheless, gender inequalities and discrimination against Filipino women at the household and community levels still persist, particularly in the rural areas of the Philippines, including in the Agriculture, Forestry and Fisheries (AFF) and environment sectors. Rural women?s contribution to food production and the rural economy remains generally undervalued, if not invisible. Women?s roles in farming and fishing are often seen as household chores and, therefore, remain unpaid. This, however, does not reflect the reality of women?s contribution to agriculture and the rural sector where women play a major role in food production, and participate in harvesting, processing and marketing of agricultural produce.

217. Rural women and men in the Philippines have different roles, responsibilities, and knowledge in managing natural resources, which result in different needs, priorities, and concerns.

For example, in many regions men use natural resources in agriculture, logging, and fishing for commercial purposes more than women. Men also tend to focus on market-oriented or cash crop production, whereas women often work with subsistence crops and vegetable gardens. Women and men also have different access, control and use of marine resources, such as in terms of the species they target, fishing practices and allocation of catch, to name a few. Multiple studies confirm that men tend to fish offshore or in inland water bodies, while women fish close to shore, engaging in activities such as shell and fry gathering/gleaning, spear fishing in rivers, reef fishing using scoop nets, traps and fish baskets.

218. A more detailed analysis of gender-differentiated perceptions, roles, impact, risks and opportunities in the project sites is included in *Annex M. Gender Analysis and Action Plan*.

219. The project will target 10,000 stakeholders (5,000 women, 5,000 men of which 975 are indigenous peoples) from local communities in the Province of Bataan, particularly the seven LGUs in the project intervention area; national government agencies, particularly the DENR and DA and their regional or provincial counterparts; the protected areas (PAs) of Bataan Natural Park and Roosevelt Protected Landscape; and non-government organization, academic institutions and private sector with business and operations in Bataan.

220. The Gender Action Plan of the project considers the gender-differentiated perceptions, roles, impact, risks and opportunities outlined and recommends some concrete actions for addressing gender inequalities across project outputs and outcomes. It also includes gender-related indicators and targets. Gender-disaggregated data shall be collected for all project beneficiaries, including indigenous peoples. Harmonized land use plans that will be developed with project support shall consider and respond to women's needs, issues and well-being. This will include ensuring equitable access, control and use of natural resources, as well as meaningful participation of women and men in leadership and decision-making bodies such as the multi-sectoral/multi-stakeholder platform focused on Bataan ecosystem management, and biodiversity monitoring and enforcement mechanisms. Biodiversity-friendly enterprises and value chains shall economically benefit both women and men, and incentivize sustainable production and consumption practices among community members, particularly farmers, fishers and PA occupants, enabling them to become responsible stewards of their natural resource base. A range of biodiversity-friendly and gender-sensitive livelihood options, including ecotourism, handicraft, fish processing, aquaculture, etc. will be identified in consultation with the local communities, especially women, to suit different locations and contexts in the project area. Necessary skill development activities will be provided for scaling up existing and viable livelihood activities, where at least 50% of the beneficiaries will be women. Good practices on gender mainstreaming, including those that address gender inequalities and empower men and women to become responsible stewards of natural resources, under the project will be documented and widely disseminated for replication across the Manila Bay area, and the country.

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

Yes

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

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes

4. Private sector engagement

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

Existing private sector involvement in Bataan

221. There are a number of private sector corporations in the Philippines engaged in biodiversity conservation and climate change adaptation efforts, including establishment of biodiversity-friendly enterprises. One example is the Philippines Business for Social Progress (PBSP), the largest corporate-led social development foundation in the Philippines and the first in Asia to lead the promotion and practice of corporate social responsibility (CSR). Comprising more than 260 businesses, PBSP operates nationwide programs in education, health, livelihood, and the environment. In Bataan Province, the private sector has a strong presence and is engaged in a range of commercial activities across sectors such as agriculture, mining and quarrying, forestry, ports and shipping, aquaculture, etc. The Bataan Coastal Care Foundation, Inc. (BCCFI), a consortium of 18 private companies of the petroleum, shipping and other sectors, has been working with the provincial government of Bataan in connection with the implementation of the Bataan Sustainable Development Strategy and its Coastal Land and Sea Use Zoning Plan.

222. The two Protected Areas in the target landscape, Bataan Natural Park (BNP) and Roosevelt Protected Landscape (RPL), have existing partnerships with the private sector. BNP has signed several Memoranda of Understanding (MoAs) with private corporations, including water and power utilities and ecotourism resorts, of which it receives fees. The local government of the Municipality of Dinalupihan and the Community Environment and Natural Resources Office (CENRO) entered into a public-private partnership (PPP) management of a portion of RPL with Green Asia Construction and Development Corporation (GACDC). GACDC oversees the management of Dinalupihan Nature Center, a site for ecotourism and educational and recreational activities within RPL. In addition, the RPL Protected Area Management Board has entered into MoAs with other private entities to lease the park resources.^[2]

223. There have also been successful experiences in engaging the private sector in the province and local government units such their partnership with the Rotary Club, JCI, Wild Bird Club of the Philippines where they are proactively involved in the event called 'Ibong Dayo? Festival' a bird watching event where private groups and organizations are promoting the conservation of Balanga Wetland and Nature Park (BWNP). This also provides employment and livelihood opportunities to the communities.

224. Other existing private actors in Bataan are the numerous People's Organizations (POs), cooperatives and associations. This includes, for example, POs managing CBFMAs or NGP areas, such as the Roosevelt Upland Farmers Association, Inc. in Dinalupihan and Bangkal-Bataan Upland Farmers Association, Inc. in Abucay. It also includes producer associations (including IPs and women's groups) such as the following organizations currently supported by DTI in Bataan Province:

Name of Organization	Location	Products	Beneficiaries
Tala Orani Multi-Purpose Cooperative (TAMCO)	Tala, Orani, Bataan	Roasted ground coffee	Coffee growers & processors of Orani
Alion SEA-K Association	Alion, Mariveles, Bataan	Processed cashew nuts, cashew butter	Women of Barangay Alion
Balanga Agrarian Reform Beneficiaries (BARB)	Tuyo, Balanga City	Veggie Noodles	ARBs

Capitangan Organic Farmers Marketing Cooperative (COFMACO)	Capitangan, Abucay, Bataan	Organic Fertilizer, Brown rice, organic vegetables	54 Farmers and Cooperative Members
Banawang Mamamayang Sagip Kalikasan CBFM (BAMASAGKA)	Banawang, Bagac, Bataan	Bamboo poles, bamboo handicrafts	40 members/farmers
Samahan ng mga Kababaihang Ayta sa Kinarigan (SKAK)	Sitio Kinarigan, Brgy. Duale, Limay, Bataan	Banana and camote chips Ginger-Herbal Salabat, rootcrops	Aetas in Sitio Kinarigan, Brgy Duale, Limay, Bataan Members of Samahan ng mga Kababaihang Ayta sa Kinarigan (SKAK) Members of Nagkakaisang Samahan ng mga Katutubong Ayta ng Kinarigan (NASAKA-K)
Samale?o Organiko Producers Cooperative (SOPCO)	Gugo, Samal, Bataan	Soil Enhancer, vermi tea, vermi cast, botanical pesticide, foliar spray	30 farmers
Alangan Farmers Producers Association, Inc. (AFPAL)	Alangan, Limay, Bataan	Bamboo	30 farmers
Bilolo Upland Farmers Assn., Inc. (BUFAI)	Bilolo, Orion, Bataan	Coffee, cacao, bamboo	more than 100 members
Morong Multi-Purpose Cooperative (MMPC)	Poblacion, Morong, Bataan	Mango (Pickles, Slice Relish), Pickles Tamarind Santol (Pickles, Slice), Gourmet Santol Vinegar, Nipa Sap Vinegar, Guava Jelly, Wine (Cashew, Bignay & Duhat), Narra Pure Honey, Ginger Herbal Salabat	more than 100 members

225. Finally, industry associations such as the Bataan Bamboo Industry Development Council (BBIDC) and resort operator associations in Bagac, Mariveles and Morong are also among the existing private sector actors in Bataan.

226. Two local POs were consulted during the project preparation phase: BAMASAGKA, a PO in Bagac with 40 upland farmers (of which about one third women); and Samahan ng Nagkakaisang Mandaragat ng Mabatang, a newly-formed PO in Abucay with about 35 fisher members (of which 4 women). BAMASAGKA has bamboo and cashew plantations under the NGP program, producing bamboo-based products and cashew nut. The fishers' group in Abucay was organized in 2020 with the aim to access support from government projects. They are engaged in fishing and mussel production. Please refer to *Section 2. Stakeholders* for details.

Planned private sector engagement by the project

227. The project will assist the DENR, the LGUs and POs in forging partnerships with the private sector to advance biodiversity and sustainable land management objectives in Bataan. Through these partnerships, the project will support implementation of the existing and newly developed plans including the PDPFP, MBSDMP, CLUPs, PA management plans, and community resource management plans. The private sector will also be engaged in the multi-stakeholder

platform under Output 1.1.1, and in the land use planning process under Output 1.1.3. Under Output 2.1.3, the project will convene a provincial level network of POs, producer associations and private sector actors that will serve as an organizational leverage or platform for BDFEs at the provincial and municipal levels. Annual meetings/marketplace of ideas for these stakeholders will be organized to network and help promote the BDFEs. Additionally, the project will facilitate consultations with members of the BCCFI and other similarly intentioned organizations and discuss revival of BCCFI and their potential role in BDFEs. The presence of large corporations and private companies in Bataan provides an opportunity for the project to engage these companies in biodiversity-friendly enterprise development under their Corporate Social Responsibility (CSR) programs. In parallel, the project will raise awareness among these companies of the importance of preserving Bataan's marine and terrestrial biodiversity, and of their roles in reducing their environmental footprints to mainstream biodiversity and promote sustainability into their business practices.

228. At the local level, there is limited engagement by the local communities with the private sector on nature-based enterprises. The project will contribute to the creation of an enabling environment for investment in biodiversity-friendly businesses by strengthening the market linkages for sustainable enterprises. Value chain analysis will be conducted for the development of the targeted gender-responsive livelihood enterprises to be identified in the project, especially in the multiple use zones of the protected areas. Potential private sector partners will be identified, and partnerships pursued. Market linkages and investments will be sought for sustainably produced products from the communities. Accordingly, the local communities, especially women, Indigenous Peoples and youth, will be trained to operate biodiversity-friendly businesses and to explore value chains for processing, packaging, and market access. People's Organizations (POs), including community associations and cooperatives, will be strengthened. Moreover, the project will pilot a forest carbon incentive scheme to create opportunities to link the concept of BDFEs with the CSR interests of private corporations. Linkages will also be established with ongoing efforts by the Philippine Chamber of Commerce and Industry (PCCI), the Department of Labor and Employment (DOLE), and DTI to promote green recovery/green jobs, which could be linked with BDFE-related initiatives. The project will aim to establish linkages with private companies such as port and private resort operators which can demonstrate sustainable business practices through ecotourism and promotion of the Green Jobs Act.

[1] https://en.wikipedia.org/wiki/Philippine_Business_for_Social_Progress.

[2] Mendoza, L. A. et al. (2010). Conservation Status of the Plant Species in Selected Areas with Frequent Human Activities in Roosevelt Protected Landscape, Bataan, Luzon Island, Philippines

5. Risks to Achieving Project Objectives

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

Description of risk	Impact ^[2]	Probability of occurrence ³	Mitigation actions	Responsible party
<i>General risks to the project</i>				

<p>1. Increased pressure on natural resources due to economic development, population growth, migration, and COVID-19 related economic impacts</p>	<p>M</p>	<p>M</p>	<p>Bataan Province will undoubtedly see further economic development and population growth in the coming decades. Furthermore, the COVID-19 related economic impacts may further increase people's reliance on natural resources as they lose their livelihoods, such as those related to tourism and handicrafts.</p> <p>The project activities aim to ensure that future development is sustainable and biodiversity-friendly, supported by local plans and increased capacity and active participation of local stakeholders. Sustainable and resilient livelihood opportunities should increase as a result of the project. Demographic changes and increased socio-economic pressures will be closely monitored by the PMU and local plans should incorporate adaptive planning and proactive management principles.</p>	<p>PMU</p>
<p>2. Insufficient interest from private sector to invest in biodiversity-friendly livelihoods, and insufficient market demand (in particular, in the context of COVID-19)</p>	<p>M</p>	<p>M</p>	<p>With the impact of COVID-19 on businesses, there may be decreased ability and willingness of private sector to invest in biodiversity-friendly livelihood. Also, there may be insufficient market demand for ecotourism activities, certified products, etc.</p> <p>The project will build on previous successful examples of private investments and sustainable product marketing, including during the pandemic, and ensure that adequate incentives are put in place. Value chain analyses will be conducted in consultation with stakeholders, and socio-economic benefits will be closely monitored. Opportunities to contribute to COVID-19 recovery, including through government and private investments, will be sought.</p>	<p>PMU</p>

3. Complacency and low interest from the stakeholders	H	L	A wide range of stakeholders (including national, provincial and local) participated in the project's consultation meetings during PPG and demonstrated their continued commitment and interest in the project activities. During project implementation, detailed consultations will be held at the municipality/LGU and barangay levels to ensure that the project activities incorporate priorities of local stakeholders. The project will establish a Project Management Unit (PMU) which shall be located at the Provincial Capital of Bataan. Project partners and key stakeholders shall designate their respective official representatives for the project. The primary function of the PMU will be to coordinate the project activities with the partners and key stakeholders through their respective official representative. It will also take the lead in the information drive about the project approach and concept at all levels and conduct small group discussions in order to increase understanding and interest about the project and formulate action plans, thereby, generate support, cooperation, and commitment from the stakeholders.	PMU
4. Lack of technical capabilities of the project agencies to implement the project according to the design	L	L	The project incorporates several outputs aimed at building the capacity of national, provincial and local institutions. This involves technical capacity but also stakeholder engagement, gender, etc. Furthermore, the project builds upon a number of previous capacity building initiatives by various organizations. The project will also promote the good governance indicators, such as, transparency, accountability, and participatory processes.	PMU
<i>Risks related to COVID-19 (see also following separate section on COVID-19)</i>				

<p>5. Post COVID-19 guidelines and regulations on stakeholder engagement and participatory processes</p>	<p>M</p>	<p>H</p>	<p>In order to meet the required participatory and consensus building processes under the post COVID-19 scenario, the design of the planning workshops will be modified, in coordination with the partners and key stakeholders, including the mechanisms of delivering the messages, and consensus building. Community-level consultations, including focus group discussions, will be held in more groups with smaller number of participants. Attention will be given to the more vulnerable people, including women, people with disabilities, indigenous peoples, etc. These discussions will be held in strategic locations, if possible, in close proximity to where the most vulnerable communities reside, to address the issues pertaining to restrictions on movement and transportation. Relevant health and safety measures of the Government will be strictly followed. Safety guidelines and Personal Protective Equipment (PPEs) will be provided to prevent the risks of transmission. If necessary, mobile devices could be provided to enable virtual consultations with local communities, including IPs. Wherever possible, consultations and planning workshops with implementing partners and other agencies will be conducted via telecommunication. The project will develop a standard operating procedure for stakeholder consultations and participatory processes in dealing with COVID-19 pandemic and related future risks and shocks.</p>	<p>PMU</p>
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6. Limited capacity and lack of experience of government partners and agencies to implement project under COVID-19 and related global shocks	M	M	COVID-19 has posed significant and unprecedented risks in project implementation for government and partner agencies as they have limited, or no, related and previous experiences. The project's results framework includes metrics on COVID-19 response in the context of green recovery and ancillary benefits that help mitigate the COVID-19 impacts. The information and data generated from the project will be shared with the government to enrich its database and understanding of the pandemic and help in dealing with, as well as recovering from similar future shocks. Further, the project under its knowledge management platform (Outcome 3.1), will collate best practices on COVID-19 response and recovery, within the country and other FAO projects globally, to support the government is dealing more effectively with similar crises. Where possible, the project team will also facilitate capacity building trainings and workshops for partner agencies to effectively deal with such crises.	PMU
7. Socio-economic impacts of COVID-19 and potential future emerging infectious diseases	M	H	A Rapid assessment of the impact of COVID-19 on food supply chains in the Philippines conducted by FAO and partners in 2021 highlighted that most farmers and assemblers reported reduced sales and lower sales prices. A good exception to this trend is direct online selling to households, which seems to have created opportunities for formal enterprises.[3] Additionally, the global socio-economic impacts of COVID-19 underscore the risks associated with ecosystems degradation and habitat loss. The project is designed to support recovery from COVID-19 and create opportunities to rebuild. This includes prioritizing the most vulnerable communities as key stakeholders of the project that will benefit from investments in future shock-proof interventions such as biodiversity-friendly enterprises, regenerative agriculture, resilient coastal resources, sustainable fisheries, responsible tourism, etc. to strengthen their resilience to the current and possible future outbreaks.	PMU

8. Combined impact of climate change and COVID-19 on local communities, indigenous peoples, especially women	M	M	The risks of losing livelihoods and being affected by the combined impacts of the pandemic and climate change are real concerns for the local communities and Indigenous Peoples due to their limited movements from their ancestral domains into the barangays and other areas. Under the "new normal" scenario, the products generated (goods and services) by the IP communities will have fewer buyers, with fewer tourists visiting their areas, where they act as tourist guides, while the cost of living escalates. This scenario may perpetuate and exacerbate poverty, food insecurity, health problems, etc., with a decline in the number of IP children going to school. In order to minimize these risks, the project will support and train the local communities and IPs, especially the women, in suitable alternative income generating livelihood activities, both off-farm (such as responsible tourism under the new normal) and on-farm, simple marketing technologies, financial literacy, health care and sanitation, etc., in combination with appropriate climate change adaptation measures such as adoption of community agroforestry in upland areas, biodiversity-friendly agriculture that promotes stress and pest/disease tolerant crops, and soil and water conservation measures.	PMU
9. Budgetary constraints from the partner LGUs and counterparts due to government prioritization of funds for COVID-19 recovery	M	M	The implementing agencies and key partners (DENR, BSWM, and Partner LGUs) are likely to face real financial constraints due to the unexpected occurrence of the pandemic and the diversion of government budget to COVID-19 response. During project preparation, the co-financing commitments were formalized, taking into consideration the said realities faced by all parties involved in project implementation, with an understanding that this is a near to long-term investment that will reduce the impact of COVID-19 on vulnerable communities, with the re/generation of ecosystem services.	PMU

10. Limited availability of technical expertise due to COVID-19	L	L	If the ongoing travel restrictions are extended due to the COVID-19 pandemic, no international or national expertise will be available to travel to the country and/or project sites to conduct face-to-face consultations. However, it is anticipated that the technical expertise can be provided through electronic means, if required. Virtual meetings and consultations will be conducted with all the relevant stakeholders. Measures will be taken to ensure that there are no compromises in the number and representations of stakeholders consulted in the virtual meetings.	PMU
<i>Climate risks (see also following separate section on Climate risks)</i>				
11. Climate change impacts on ecosystems and biodiversity of Bataan Province to the Manila Bay region	M	M	Due to extreme temperature, occurrence of fire in the uplands (grasslands and shrublands) and drought is common during dry months, and occurrence of flash floods and typhoons during rainy months, are also common incidents, affecting the most vulnerable sectors, such as the Indigenous Peoples, upland farmers, the fisherfolks, and other poverty-stricken sectors of the society. In order to minimize the impacts of drought and flooding on livelihoods of the most vulnerable sectors, the project, in coordination with the LGUs concerned and other partner agencies, will provide support to alternative livelihood systems (including value chain and enterprises), and capacity building initiatives, from planning to implementation, to evaluation and monitoring to enhance resilience of the affected community. The project will promote climate resilient agriculture via technical assistance to farmers in selecting stress tolerant crop varieties and those resistant to pest and diseases. IPs will be supported in conserving native varieties that are proven to be resilient to climate change impacts. Where possible, agroforestry measures will be implemented in the degraded forestlands and uplands areas. Soil and water conservation measures will aim to reduce soil erosion and sedimentation and, thus, reduce the risks of flooding and landslides, and droughts.	PMU

COVID-19 risks and opportunities

(i) Impacts of COVID-19 and Government response

229. On 8 March 2020, the Philippine government declared the State of Public Health Emergency to address COVID-19. On 13 March 2020, the government imposed enhanced community quarantine (ECQ) over Luzon Island, where Bataan is located. Renewed ECQ measures were imposed in August 2021 in the National Capital Region (NCR), Bataan and Laguna, and additional cash aid was provided to families impacted by the strict lockdown measures. As in other countries, the COVID-19 pandemic has inflicted unprecedented controls on travel and social distancing, with adverse economic consequences still ongoing. Throughout the supply chain, players who needed to travel as part of their business faced LGU-imposed restrictions, at least in the initial phase of the lockdown.[4] COVID-19 had a significant impact on employment in the Philippines: a majority of employees reported their job was suspended, hours and pay reduced, or they were forced to take unpaid leave; 6 out of 10 families lost income; and over 60% of those affected began working from home. In addition, 4 in 10 adults felt pressure to do more household work and childcare. Increased time spent on cleaning was reported by 77% of women and 72% of men.[5]

230. A recent study[6] by humanitarian and girls' rights organization Plan International Philippines revealed that while COVID-19 affects everyone, it exacerbates inequalities and poverty for marginalized girls and young women. Filipino girls and young women who are from low- and middle-income families said that they suffer more from income loss, food insecurity, inability to continue education, and heightened tensions at home which may result to domestic and gender-based violence.

231. The threat of COVID-19 and outcomes brought about by the pandemic impelled the Philippine Government to start planning forward while taking measures to control the spread of the disease.[7] In May 2020, two documents were issued by the Inter-Agency Task Force Technical Working Group for Anticipatory and Forward Planning and by the Department of Budget and Management (DBM):

- ? We Recover As One, and
- ? Budget Priorities Framework for the Preparation of the FY 2021 Agency Budget Proposals.

232. The national government, in coordination with LGUs and other stakeholders, have implemented various policies and assistance programs to reduce the adverse impact of COVID-19 and ECQ, particularly in terms of income and employment. Anchored on the emergency measures provided under the Bayanihan to Heal As One Act (Republic Act 11469), the national government has implemented social protection programs, projects, and services catering to the individuals affected, mostly from the vulnerable sectors.[8] Watershed protection policies are included in the Inter-Agency Task Force (IATF) Recovery Programs for the Environment. This includes strengthening forest protection, reforestation, and watershed management activities, especially in critical watersheds.

233. Furthermore, COVID-19 has greatly impacted the tourism industry. In response to the challenges brought about by the COVID-19 pandemic (at least 4.8 million Filipinos in the tourism industry have been affected ? either losing their jobs or receiving lower salaries), the Department of Tourism (DOT) developed another initiative called the Transforming Communities towards Resilient, Inclusive and Sustainable Tourism (TouRIST) Program to highlight the importance of:

- ? Resiliency ? management and recovery from natural and human-induced disaster/crises
- ? Inclusivity ? poverty alleviation, gender equality, and recognition of minorities and other disadvantaged groups
- ? Sustainability ? protection, preservation and conservation and natural and cultural assets

(ii) Risk analysis and mitigation measures

234. **Stakeholder engagement.** During PIF and PPG development, most of the coordination meetings, local consultations, reviews, and discussions were done through electronic means (i.e., Zoom, Skype, Telephone, and Internet). This has had some advantages in reaching a significant number of agency representatives. However, the ability to engage with local stakeholders (LGUs, local communities) has been somewhat compromised. During implementation, engagement of local stakeholders will be critical to achieve the project's outputs and objectives. As COVID-19 restrictions

may continue to some degree, the project will rely on the local PMU team based in Bataan Province and will hire local coordinators at LGU levels when needed. The project will develop a standard operating procedure for stakeholder consultations and participatory processes in dealing with COVID-19 pandemic and related future risks and shocks.

235. **Project implementation.** COVID-19 also imposed significant unprecedented risks in project implementation for government partner agencies as they have limited, or no, related past experiences. The project's results framework includes metrics on COVID-19 response in the context of green recovery and ancillary benefits that help mitigate the COVID-19 impacts. The information and data generated from the project will be shared with the government to enrich its database and understanding of the pandemic and help in dealing with, as well as recovering from similar future shocks. Further, the project under its knowledge management platform (Outcome 3.1), will collate best practices on COVID-19 response and recovery, within the country and other FAO projects globally, to support the government in dealing more effectively with similar crises. Where possible, the project team will also facilitate capacity building training and workshops for partner agencies to effectively deal with such crises.

236. **Co-financing.** The implementing agencies and key partners (DENR, BSWM, and Partner LGUs) are likely to face real financial constraints due to the unexpected occurrence of the pandemic and the diversion of government budget to COVID-19 response. It is, thus, important to align efforts to support biodiversity-friendly enterprise development and agricultural practices with investments in green recovery. During project preparation, the co-financing commitments were formalized, taking into consideration the realities faced by all parties involved in project implementation, with an understanding that this is a near to long-term investment that will reduce the impact of COVID-19 on vulnerable communities, with the re/generation of ecosystem services.

237. **Socio-economic impacts of COVID-19.** The risks of losing livelihoods and being affected by the combined impacts of the pandemic and climate change are real concerns for the local communities and Indigenous Peoples due to their limited movements from their ancestral domains into the barangays. Under the "new normal" scenario, the products generated (goods and services) by the IP communities will have fewer buyers, with fewer tourists visiting their areas, where they act as tourist guides, while the cost of living escalates. This scenario may perpetuate poverty, food insecurity, health problems, etc., with a decline in number of IP children going to school. Additionally, the global socio-economic impacts of COVID-19 underscore the risks associated with ecosystems degradation and habitat loss. In order to minimize these risks, the project will support and train the local communities and IPs, especially the women, in appropriate income generating livelihood activities, both off-farm (such as responsible tourism under the new normal) and on-farm, simple marketing technologies, financial literacy, health care and sanitation, etc, in combination with appropriate climate change adaptation measures such as adoption of community agroforestry in upland areas, biodiversity-friendly agriculture that promotes stress and pest/disease tolerant crops, and soil and water conservation measures.

238. In response to the country's socio-economic recovery efforts to COVID-19, the project will explore multiple measures to strengthen safety nets and promote a local green economy through improved natural resource governance and community stewardship. These include (a) a resilient supply chain for biodiversity-friendly enterprises that generate income and empowerment, especially for women and indigenous peoples; (b) responsible tourism that fosters inclusive green growth in and around the protected areas that are under threat from further exploitation due to loss of income and livelihoods; (c) biodiversity-friendly agricultural practices for subsistence farmers to address immediate challenges to food security; (d) sustainable land management measures that improve productivity, address soil erosion and protect biodiversity and ecosystems in the upland and downstream riparian areas and coastal zones. Experiences from the project will be recommended for integration into relevant provincial and national plans and policies to strengthen the country's capacity to deal and recover from the COVID-19 pandemic and potential future shocks under increasing climate

variabilities and risks to biodiversity and ecosystems. These measures will be implemented under the three components of the proposed project.

(iii) Opportunity analysis

239. The project is designed to support recovery from COVID-19 and create opportunities to build back better and greener. This includes prioritizing the most vulnerable communities as key stakeholders of the project that will benefit from investments in future more resilient interventions such as biodiversity-friendly enterprises, regenerative agriculture, resilient coastal resources, sustainable fisheries, responsible tourism, etc. to strengthen their resilience to the current and possible future outbreaks. In some instances, the lockdown due to the COVID-19 pandemic has presented an opportunity for farmers groups/cooperatives (including Indigenous Peoples' communities) in the Philippines to sell their produce directly to consumers.^[9] The project will consider new and flourishing livelihood activities brought by the pandemic, such as through online selling of products, packaging, provision of equipment and start-up capital.

240. Particularly, the project will contribute to the Inter-Agency Task Force (IATF) Recovery Programs for the Environment by supporting forest protection, reforestation, and watershed management activities. It will also support mainstreaming of Post COVID-19 into the LGU plans, and will contribute to the Transforming Communities towards Resilient, Inclusive and Sustainable Tourism (TouRIST) Program by supporting sustainable ecotourism and livelihood activities. Moreover, the project will contribute to the promotion of the Green Jobs Act. Finally, the project will realize opportunities to incorporate the One Health/Healthy People, Healthy Planet approach, such as through reducing pressures on intact ecosystems by addressing the drivers of biodiversity loss and modifications to natural habitats. It will also build on experiences from the USAID SIBOL project related to the Planetary Health Approach.^[10]

Climate Risk Analysis

241. A climate risk screening was conducted during PIF development and is attached as a separate document in the GEF Portal. A summary of the analysis from PIF and PPG stage, as well as the main points incorporated into the project design during project development, are summarized below.

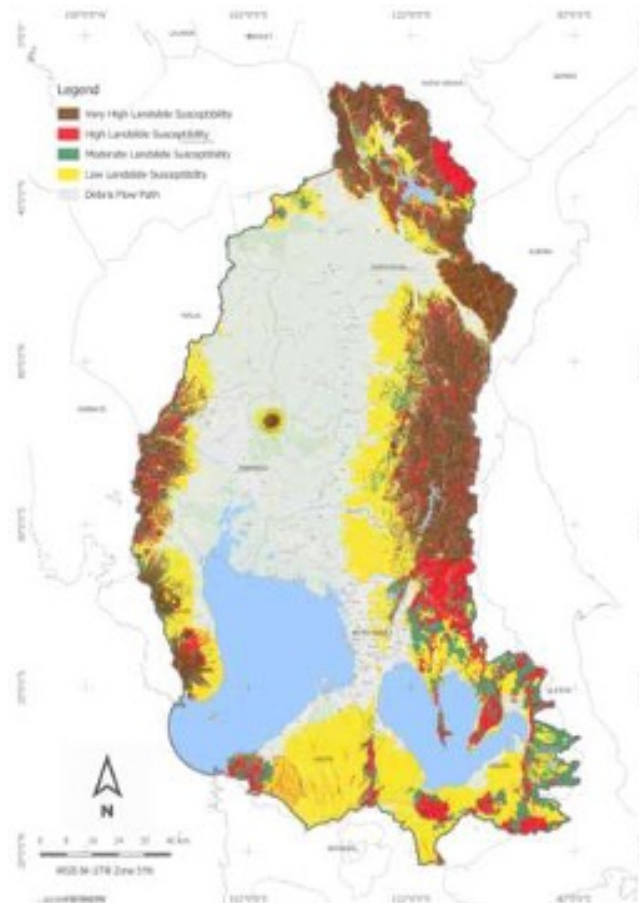
242. ***Past and future climate trends: temperature and precipitation.*** Mean annual temperatures in the Philippines have increased by 0.62°C between 1958-2014 and a significant increase in the number of hot days and warm nights throughout the country between 1960-2003 has been observed. The amount and intensity of rainfall due to climate change in recent years has also increased with more rainy days observed since the 1990s. The number of rainy days in the Philippines has indeed increased since the 1990s, as has the inter-annual variability of the onset of rainfall (GoP, 2014; WBCKP, 2020). In Bataan Province where the project is located, mean annual temperatures have increased by 0.85°C in the period between 1981 and 2020 (ECMWF, 2020) and rainfall increased by around 400 mm during the same period (CHIRPS, 2020). The number of categories 4 and 5 storms in the Pacific region has more than doubled between 1975-1989 and 1990-2004. The number of cyclones has also a tendency to increase during El Niño years. Sea surface temperatures in the Pacific have increased between 0.6°C to 1.0°C since 1910, with the most significant warming occurring after the 1970s (Folland et al., 2003) while sea level rose by 0.15 meters since 1940 (USAID, 2017). While considerable uncertainty surrounds projections of local long-term future precipitation trends, global trends show that mean annual temperature in the Philippines is expected to rise by 1.35°C and annual precipitation will rise by 158.68mm in 2040-2059 in the RCP 8.5 scenario. Although annual precipitations will increase, reduced rainfall is expected from March-May in most areas of the country making the dry season drier (USAID, 2017).

243. ***Natural hazards, exposure, and vulnerability.*** The Philippines is highly vulnerable to natural hazards with estimations placing 60% of its land area and 74% of its population as exposed to

numerous hazards such as floods, cyclones, droughts, earthquakes, tsunamis and landslides. Since 1990, the country has faced 565 such disasters, killing 70,000 and costing \$23 billion in damages. These hazards are projected to intensify in the future under climate change. The agriculture sector in the Philippines is highly dependent on a constant water supply and predictable growing seasons. Climate-related changes, such as increased tropical cyclone activity and associated storm surges, intense rain events, prolonged droughts, and resulting physical factors, such as nutrient-poor soils, disrupt farming activities and hamper agricultural production. Moreover, pest infestations, which tend to increase with weather variability, damage crops, especially in areas with little or no technology available (GoP, 2014). Water shortages are also intensifying during the dry season and are expected to increase in the future. On the other hand, watershed disasters such as landslides and floods are rapidly increasing because of the increasing occurrence of heavy rainfall. These events could potentially affect the biodiversity and overall productivity of watersheds. In addition to natural causes and human-induced activities, climate change is also impacting the coastal areas of the Philippines contributing to coastal erosion, bleaching of coral reefs, loss of seagrass and destruction of mangrove areas which have downstream effects on the coastal and fisher communities' livelihoods, thus increasing their vulnerability and lowering their adaptive capacity. With the more frequent and stronger storm surges created by climate change, the coastal erosion potential is enhanced, and communities will be affected by coastal floods. With sea level rise, there will be more saltwater intrusion, affecting the groundwater sources of communities near the coast (GoP, 2014). The number of people at risk in coastal areas will increase due to population growth and the combined effects of sea level rise and land subsidence in the northern part of the Manila Bay.[11] Due to extreme temperature, occurrence of fire in the uplands (grasslands and shrublands) and drought is common during dry months, and occurrence of flash floods and typhoons during rainy months, are also common incidents, affecting the most vulnerable sectors, such as the Indigenous Peoples, upland farmers, the fisherfolks, and other poverty-stricken sectors of the society.

244. As explained in the MBSDMP, areas prone to landslides typically include old landslide deposits along, near or beneath steep slopes and down slope of streams and creeks, thick soil or fractured rocks, those along or on top of cut slopes, and developed steep slopes with no appropriate drainage. Human activities sometimes contribute to the susceptibility of areas to landslides. Based on the maps generated by the Mines and Geosciences Bureau on Rain-Induced Landslide (RIL), rain induced landslide susceptibility is High in the municipalities of Morong, Bagac and Mariveles, with 41.59%, 38.12% and 30.61% exposure of the municipal total land areas, respectively. Moreover, 69 barangays of the province are prone to High Susceptibility category on RIL, with 31,406 hectares of land projected to be greatly affected. Most of these affected barangays are within or adjacent to the province's declared Protected Areas, with the Bataan National Park in the North and the Mariveles Watershed in the South. The MBSDMP points out that these areas are still covered with rich vegetation, and activities and development are being regulated, hence, poses low risk to few inhabitants living in the upland. Lowland settlers are more at risk as they might experience abrupt water run-off from landslides on occasions of prolonged and continuous rains.[12]

Figure 16: Rain-induced landslide prone areas in the Manila Basin Area[13]

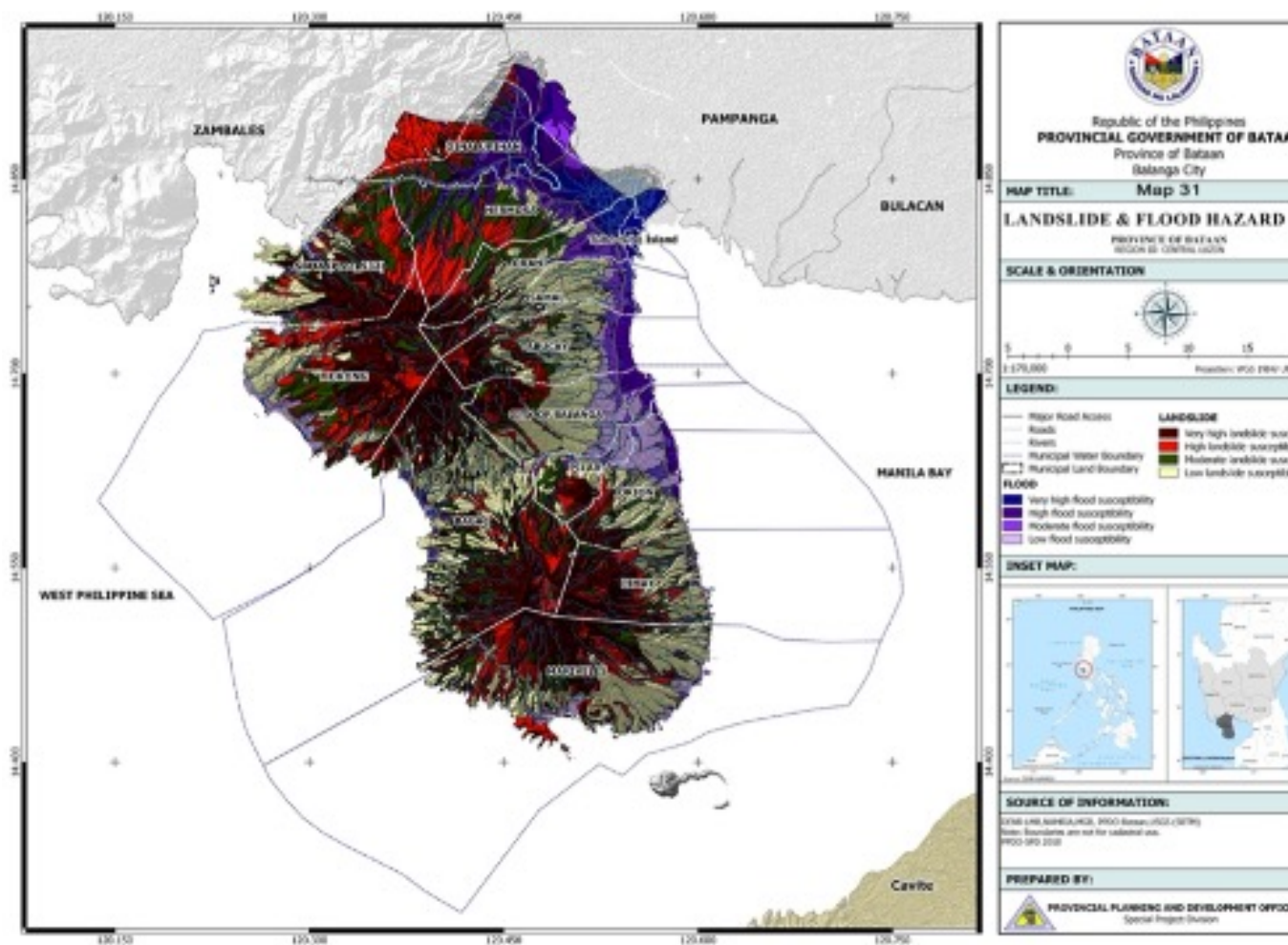


245. According to the PDPFP, around 2,541 hectares of the province's land area (notably on the Eastern portion along Manila Bay) will be affected by storm surge occurrences, although with only 13% exposure. The Municipality of Hermosa will have the most affected area, with 790 hectares with 6% exposure but, second only to the Municipality of Orani in terms of percent exposure to storm surge estimated at 8.53%.^[14]

246. Terrestrial ecosystems within Bataan Natural Park and Roosevelt Protected Landscape are vulnerable to climate change impacts such as increased temperature and erratic rainfall patterns in addition to more extreme climatic events like typhoons and floods.^[15] Such occurrence leads to areas within these parks that are highly susceptible to flooding and flash flood, as well as landslides. Forest fire during the summer months also poses threats to these parks. Wildlife in BNP and RPL are affected by typhoons and landslides.^[16]

247. **Climate risk assessment.** The project falls into the moderate climate risk category. Impacts from climate change and extreme weather events (e.g., flooding, cyclones, landslide, etc.) are likely to occur, but will not cause significant impacts on the project if the appropriate mitigation measures are identified and implemented. The project aims to mainstream biodiversity and sustainable land management into land use plans and frameworks along Bataan province to Manila Bay and will promote biodiversity-friendly livelihoods and agricultural practices, and increased adoption of soil and water conservation measures.

Figure 17: Landslide and Flood Hazard Map of Bataan's Provincial Development and Physical Framework Plan (PDPFP) 2019 - 2025



248. **Adaptive measures:** Under Component 1, the project will support the integration of climate risks into the land use plans and management frameworks and build the capacities of the relevant project stakeholders on the use of climate information to better understand and respond to climate change and its associated risks and impacts. The project aims to build on the achievements and findings of the AMICAF project^[17] as well as the results of the implementation of the MOSAICC platform to assess the impact of climate change on the project activities. The Manila Bay Sustainable Development Master Plan already foresees capacity building for Climate and Disaster Risk Assessment integrated with the Environmental Management and Restoration (EMR). The CLUPs and the PA Management Plans also address climate risks. Moreover, Bataan Province has a Local Climate Change Action Plan (LCCAP), led by the Provincial Disaster Risk Reduction and Management Office. This can be further enhanced by the GEF-7 project. The Provincial Government of Bataan has been prioritizing Programs, Projects and Activities (PPAs) in response to disaster risk reduction and climate change adaptations. The Provincial Disaster Risk Reduction and Management Council is mandated to formulate and implement the Local Risk Reduction and Management Plan which will serve as a guide in identifying key issues, problems, opportunities, goals, and targets of the province for local disaster preparedness and management. Flood management is done through prevention, protection, rehabilitation and mitigation. With the support of the GEF-7 project, climate change and land degradation indicators will be incorporated into existing monitoring frameworks.

249. Additionally, in order to minimize the impacts of drought and flooding on livelihoods of the most vulnerable sectors, the project, in coordination with the LGUs concerned and other partner agencies, will provide support to alternative livelihood systems (including value chain and enterprises), and capacity building initiatives, from planning to implementation, to evaluation and monitoring to enhance resilience of the affected communities. The project will promote climate-resilient agriculture

via technical assistance to farmers in selecting stress-tolerant crop varieties and those resistant to pest and diseases. IPs will be supported in conserving native varieties that are proven to be resilient to climate change impacts. Where possible, agroforestry measures (e.g., fruit and timber trees along with rice and vegetables) will be implemented in the degraded forestlands and uplands areas to improve soil fertility and water conservation, enhance above and below ground biodiversity and reduce occurrence of pests and diseases while enhancing livelihoods. Soil and water conservation measures will aim to reduce soil erosion and sedimentation and, thus, reduce the risks of flooding and landslides, and droughts. Nature-based solutions such as the establishment of windbreaks to reduce wind-related evaporation and damage associated with heavy rains may be considered, where they are useful and effective. The resilience of coastal ecosystems will also be enhanced through their conservation and improved management. Finally, the project will climate-proof its investments by ensuring that communities adopt practices or livelihoods that are well adapted to climate change.

250. Climate change adaptation measures are also included in the BNP and RPL Management Plans, and will be supported by the project, such as by stabilizing slopes to reduce occurrences of landslides, prioritizing protection of remaining old growth forest, harmonizing PA Management Plans with CLUPs and FLUPs, diversifying upland crops, and introducing soil and water conservation measures in agroforestry production systems.

[1] GEF-STAP guidance on climate risk screening: <https://www.stapgef.org/stap-guidance-climate-risk-screening>

[2] H: High; M: Moderate; L: Low.

[3] FAO (2021). Rapid assessment of the impact of COVID-19 on food supply chains in the Philippines. Manila.

<https://doi.org/10.4060/cb2622en>

[4] FAO (2021). Rapid assessment of the impact of COVID-19 on food supply chains in the Philippines. Manila.

<https://doi.org/10.4060/cb2622en>

[5] Based on a survey commissioned by the Philippine Business Coalition for Women Empowerment and the Australian Aid-supported Investing in Women project involving 300 men and 300 women employees, aged 18 to 60, from large private sector firms.

[6] A perception survey conducted over 1,203 girls and young women aged 13 to 24 entitled Through Her Lens: The Impact of COVID-19 on Filipino Girls and Young Women

[7] MBSDMP Final Master Plan Report. January 2020.

[8] <https://www.adb.org/sites/default/files/linked-documents/cobp-phi-2021-2023-ld-05.pdf>

[9] <https://asiapacificfarmersforum.net/philippines-pakisama-farmers-market/>

[10] <https://www.rti.org/impact/sustainable-conservation-biodiversity-philippines-sibol>

[11] Manila Bay Sustainable Development Master Plan (MBSDMP). Final Master Plan, September 2020. <http://mbsdmp.com/reports>

[12] Province of Bataan. Provincial Development and Physical Framework Plan (PDPFP) 2019 ? 2025.

[13] Manila Bay Sustainable Development Master Plan. Situation Analysis Report: Climate Change Adaptation and Disaster Risk Reduction. December 2018. <http://mbsdmp.com/reports>

[14] PDPFP 2019 ? 2025.

[15] Roosevelt Protected Landscape. General Management Plan and Strategy.

[16] Protected Area Management Plan of the Bataan Natural Park, 2021-2030.

[17] Analysis and Mapping of Impacts under Climate Change for Adaptation and Food Security.

<http://www.fao.org/in-action/amicaf/countries/phl/en/>

[18] The Manila Bay Sustainable Development Master Plan ? Final Master Plan Report (January 2020) highlights that ?Although no complete data on seagrass loss is available for Manila Bay, it is estimated that from 30% to 50% of seagrass habitats have been lost to heavy siltation (sediment deposition), coastal development (e.g. reclamation activities) and mangrove planting.?

[19] <http://apps.worldagroforestry.org/sea/ph/sites/default/files/Biodiversity%20-%20bioprospecting%20in%20bataan.pdf>

[20] <https://legacy.senate.gov.ph/lisdata/2936825989!.pdf>

6. Institutional Arrangement and Coordination

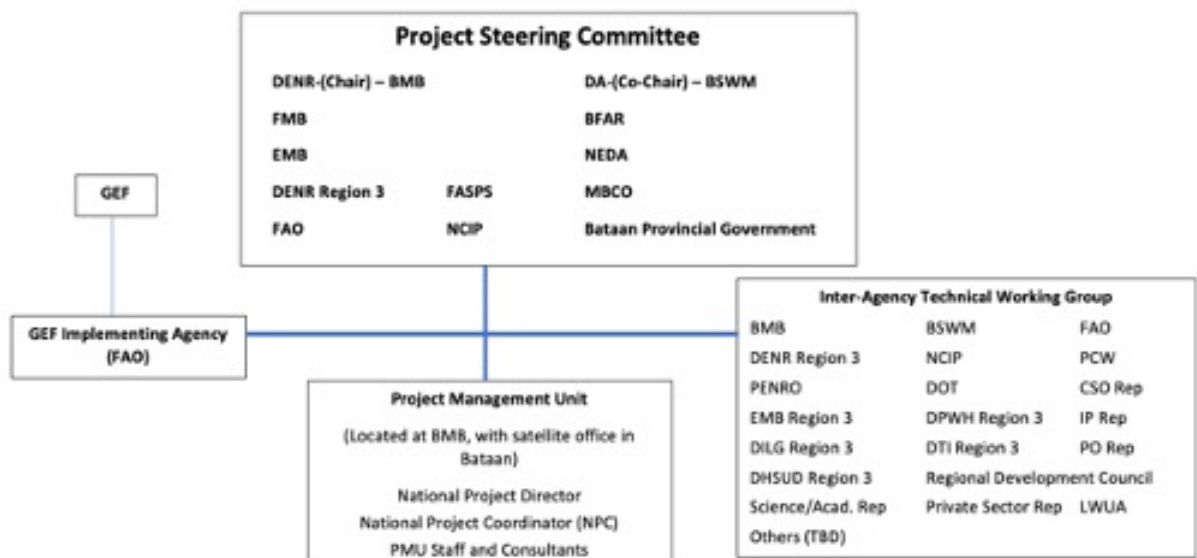
Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

251. The Department of Environment and Natural Resources-Biodiversity Management Bureau (DENR-BMB) will be the executing agency, in partnership with the Department of Agriculture-Bureau of Soils and Water Management (DA-BSWM). Additionally, the LGUs in Bataan Province, particularly those in and around Bataan Natural Park and Roosevelt Protected Landscape, will be critical partners in ensuring effective implementation of the project.

252. The DENR-BMB will have the executing and technical responsibility for the project, with FAO providing oversight as the GEF Implementing Agency as described below. The DENR-BMB will act as the lead executing agency and will be responsible for the day-to-day management of project activities and results entrusted to it in full compliance with all terms and conditions of the Operational Partnership Agreement (OPA) that will be signed with FAO. As Operational Partner (OP) of the project the DENR-BMB is responsible and accountable to FAO for the timely implementation of the agreed project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for the intended purposes and in line with FAO and GEF policy requirements.

253. It should be noted that the identified Operational Partner(s) or OP, results to be implemented by the OP and budgets to be transferred to the OP are non-binding and may change due to FAO internal partnership and agreement procedures which have not yet been concluded at the time of submission of this funding proposal.

254. The project organization structure is as follows:



255. The government will designate a **National Project Director (NPD)**. Located in DENR-BMB, the NPD will be responsible for overseeing, monitoring, and coordinating the activities with all the national, regional and provincial bodies related to the different project components, as well as with the project partners. He/she will also be responsible for supervising and guiding the National Project Coordinator (see below) on the government policies and priorities.

256. A **Project Steering Committee (PSC)** will be established to provide strategic guidance to the PMU and take decisions related to the project implementation including approval of project plans, budgets and revisions. The PSC will be comprised of representatives from DENR, DA, NEDA, Foreign-Assisted and Special Projects Service (FASPS), the National Commission on Indigenous Peoples (NCIP), DENR Region 3, MBCO, Bataan Provincial Government, and FAO. The DENR-BMB will chair the Project Steering Committee and DA-BSWM will co-chair. The PSC will provide strategic guidance to the Project Management Team and to all executing partners. The PSC will meet at least twice a year to ensure: i) Oversight and assurance of technical quality of outputs; ii) Close linkages between the project and other ongoing projects and programmes relevant to the project; iii) Timely availability and effectiveness of co-financing support; iv) Sustainability of key project outcomes, including up-scaling and replication; v) Effective coordination of governmental partners work under this project; vi) Review and approval of the Annual Work Plan and Budget; vii) Making by consensus, management decisions when guidance is required by the National Project Coordinator of the PMU. The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: (i) technically oversee activities in their sector; (ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; (iii) facilitate coordination and links between the project activities and the work plan of their agency; and (iv) facilitate the provision of co-financing to the project. The National Project Coordinator (see below) will be the Secretary to the PSC.

257. An **Inter-Agency Technical Working Group (TWG)** will be established to provide technical guidance to the project. It will be convened *ad hoc* on a needs basis by the project implementation (at least once a year) and will include representatives from the national, regional, provincial and local levels. The TWG may call on relevant experts depending on the agenda items. There will be a consultative process during the inception phase of the project to identify the private sector, academe, CSO, PO and IP representatives.

258. A **Project Management Unit (PMU)** will be co-funded by the GEF grant and established within the BMB, with a satellite office at PENRO Bataan. The main functions of the PMU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The PMU will be composed of a National Project Coordinator (NPC) who will work full-time for the project lifetime. In addition, the PMU will include a National Knowledge Management and M&E Specialist, a National Safeguards and Gender Specialist, and a Finance, Procurement and Operations Officer.

259. The **National Project Coordinator (NPC)** and Technical Lead will oversee daily implementation, management, administration, and technical supervision of the project, on behalf of the Operational Partner (DENR-BMB) and within the framework delineated by the PSC. S/he will be responsible, among others, for:

? Overall technical lead for the implementation of all project outputs and activities and ensure technical soundness of project implementation;

? Ensuring technical and operational lead and guidance in the implementation of Output 1.1.1 on the multi-stakeholder platform, Output 1.1.3 on the land use planning process, and Outputs 2.1.1 and 2.1.2 on training, and implementation of biodiversity-friendly agricultural practices, natural resources management and restoration;

- ? Coordination with relevant initiatives and activities by other projects including other GEF-financed projects;
- ? Ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;
- ? Ensuring compliance with all Operational Partners Agreement (OPA) provisions during the implementation, including timely reporting and financial management;
- ? Coordination and close monitoring of the implementation of project activities;
- ? Leading and supervising the preparation of various technical outputs, e.g., knowledge products, reports and case studies.
- ? Ensuring meaningful engagement of stakeholders as per the Stakeholder Engagement Plan.
- ? Ensuring that all project resources are used solely to achieve project objectives consistent with the approved work plan and budget and government financial policies and FAO/GEF requirements.
- ? Tracking and closely monitoring the project's progress and ensuring timely delivery of inputs and outputs, including targets for the project's indicators in line with the results framework;
- ? Providing technical support, assessing, and monitoring the performances and outputs of the project national consultants hired with GEF funds, as well as the products (e.g., reports, data) generated in the implementation of the project;
- ? Approving and managing requests for provision of financial resources using the format provided in OPA annexes;
- ? Monitoring and accounting of financial resources to ensure accuracy and reliability of financial reports;
- ? Ensuring timely preparation and submission of requests for funds, financial and progress reports to FAO as per OPA reporting requirements;
- ? Maintaining documentation and evidence that describes the proper and prudent use of project resources as per OPA provisions, including making available supporting documentation to FAO and designated auditors when requested;
- ? Implementing and managing the project's monitoring and communications plans;
- ? Organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan;
- ? Submitting the six-monthly Project Progress Reports (PPRs) with the AWP/B to the PSC and FAO;
- ? With support from the Knowledge Management and M&E Specialist, preparing the first draft of the Project Implementation Review (PIR);
- ? Supporting the organization of the mid-term review and terminal evaluation in close coordination with the FAO Budget Holder, the GEF Coordination Unit, and the FAO Regional Evaluation Specialist under the guidance of the FAO Independent Office of Evaluation (OED);
- ? Assist the NPD in submitting the required OP technical and financial reports to FAO and facilitate the information exchange between the OP and FAO, if needed;
- ? Provide draft terminal report for Budget Holder (BH) two months before the ending date of the OPA or the project;
 - ? Informing the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support.

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

- ? The *Budget Holder*, the FAO Representative in the Philippines, will provide oversight of project execution;
- ? The *Lead Technical Officer(s)*, drawn from across FAO will provide oversight/support to the projects technical work in coordination with government representatives participating in the Project Steering Committee;

? The *Funding Liaison Officer(s)* within FAO will support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements;

? The *HQ Technical Officer* is accountable for advising and supporting the LTO in ensuring project formulation, appraisal and implementation adhere to FAO corporate technical standards and policies.

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

? Administrate funds from GEF in accordance with the rules and procedures of FAO;

? Oversee project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, Operational Partners Agreement(s)and other rules and procedures of FAO;

? Provide technical guidance to ensure that appropriate technical quality is applied to all activities concerned;

? Conduct at least one supervision mission per year; and

? Reporting to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, the Mid Term Review, the Terminal Evaluation and the Project Closure Report on project progress;

? Financial reporting to the GEF Trustee.

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

262. The coordination with other relevant GEF-financed projects and other initiatives, as well as lessons learned from previous GEF projects and other initiatives, are described below. Coordination will be ensured by DENR-BMB and the DA-BSWM, who are the nodal agencies for most of these initiatives , as well as through the National Steering Committee that is in place for all GEF projects in the Philippines. A coordination mechanism, with a project steering committee and a technical working group involving the various agencies, will be established in order to facilitate the following: (i) close coordination and linkages between the project activities and the relevant interventions of its agencies; (ii) exchange of information and knowledge between the project and the agency activities; (iii) sustainability of key project outcomes, including scaling up and replication of innovative practices; and (iv) provide oversight and assurance of the quality of project outputs and complementation to existing agency initiatives.

Project or initiative	Complementarity with the project / lessons learned
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<p>1) GEF-2 GEF/UNDP/International Maritime Organization Regional Programme on Building Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) (second phase, completed 2000-2006)</p>	<p>The objective of the project was to protect the life support systems and enable the sustainable use and management of coastal and marine resources through intergovernmental, interagency and intersectoral partnerships, for the improved quality of life in the East Asian Seas (EAS) Region. Integrated Coastal Management (ICM) demonstration sites were developed, including replication sites at Bataan and Cavite in the Philippines.</p> <p>In Bataan, 17 companies located in the export processing zone within the province put up about PHP100,000, while the Petron Corporation, which has an oil refinery in the province, contributed PHP1 million. The contributions were pooled through the Bataan Coastal Care Foundation and administered by Programme Coordinating Council (PCC) of the Bataan ICM Programme through the PMO and utilized for projects such as coastal clean-up, mangrove reforestation, alternative livelihoods for fisher folk, and establishment of a marine sanctuary.</p> <p>The project prepared a report presenting the findings and outcome of the Manila Bay Refined Risk Assessment (MBRRA). An Integrated Environmental Monitoring Program for Manila Bay (Bataan and Cavite) was also established (including sampling station in Mariveles).[2]</p> <p>The GEF-7 project builds on the achievements of this project from the early ICM pilots in Bataan, as well as the private sector involvement.</p>
<p>2) UNDP GEF-4 Implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) (GEF ID 2700) (completed, 2007-2013)</p>	<p>The objective of this project was to support country and stakeholder momentum towards full implementation of the SDS-SEA in the priority areas of, among others:</p> <ul style="list-style-type: none"> ? Operationalizing a country-owned regional mechanism, consisting of a PEMSEA Partnership Council, a PEMSEA Resource Facility, a regional Partnership Fund, and a tri-annual East Asian Seas Congress to oversee, guide, coordinate and monitor the full implementation of the SDS-SEA; ? Developing and implementing national policies and action plans for sustainable coastal and ocean development in at least 70% of PEMSEA countries by 2015; and ? Scaling up ICM programmes at the national and sub-national levels, targeting coverage of at least 20% of the region's coastlines by 2015, including reduction of vulnerability from natural hazards and improved health of human beings, ecosystems and the natural resource base. <p>The GEF-7 project will build on the achievements and lessons of this project with regard to ICM. The Terminal Evaluation of the project highlighted that the simultaneous focus on a "top-down" and "bottom-up" approach had been conducive to effective stakeholder involvement in PEMSEA-supported activities at international, regional, national, provincial and local levels.[3]</p>

<p>3) UNDP GEF-5 EAS: Scaling up the Implementation of the Sustainable Development Strategy for the Seas of East Asia (GEF ID 5405) (completed, 2014-2019)</p>	<p>The project was implemented in various regions of the country, including Region III and the National Capital Region, on catalysing actions and investments at the regional, national, and local levels to rehabilitate and sustain coastal and marine ecosystem services and build a sustainable coastal and ocean-based economy in the East Asian region, in accordance with the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).</p> <p>Bataan Province was one of the ICM sites of this project. A State of the Coasts of Bataan Province was developed in 2017. ICM Learning Centres were established in the following institutions in the Philippines:</p> <ol style="list-style-type: none"> 1. De La Salle University Lipa 2. University of the Philippines Visayas 3. Xavier University-Ateneo de Cagayan[4] <p>The GEF-7 project will build on the outcomes of this project by building upon the knowledge generated under the State of the Coasts assessment, and by incorporating lessons learned of this project.</p>
<p>4) UNDP GEF-6 Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries (PEMSEA) (GEF ID 9654) (under CEO endorsement, 2021-2026)</p>	<p>The objective of this project is to improve integrated water resources management, reduce pollution loads from nutrients and other land-based activities, sustain freshwater environmental flows, and reduce climate vulnerability through demonstrations and replications, planning and strengthening of integrated river basin management (IRBM) in selected countries in the East Asian Seas. The project covers Regions III and IV of the Manila Bay region (Cavite and Pampanga Provinces, i.e., the Eastern and Southern part of Manila Bay).</p> <p>Planned activities include confirming existing river basin coordinating mechanisms to oversee and guide the IRBM project at the river basin level. In the Philippines, the project will support implementation of river basin action plans in Imus Ylang Ylang and Pasac-Guagua River Basins as these relate to the rehabilitation of Manila Bay. The priority issues to be addressed in the two river basins are similar to the ones addressed by the GEF-7 project: (i) Pollution reduction/nutrient management; (ii) solid waste management/marine litter/plastics reduction; (iii) circular economy; (iv) water resource management (environmental flows; (v) sustainable water supply for domestic, agricultural and aquacultural purposes).</p> <p>The GEF-7 project will closely coordinate with this project in terms of application of tools, knowledge management, and sharing of lessons learned. In particular, it will build on and learn from the following outputs and activities.</p> <p>? 1.1.4 Rapid assessment of land-based pollutant loadings and sources. The rapid assessment is seen as an essential first step in identifying and confirming priorities and hotspot locations in each river basin, recognizing that there is currently a dearth of reliable surveillance monitoring data available.</p> <p>? 3.1.1 Technical report/guide for a harmonized set of IRBM governance and management indicators on inputs, process, socioeconomics, governance, stress reduction, and environmental status</p>

5) UNDP GEF-4 Partnerships for Biodiversity Conservation: Mainstreaming in Local Agricultural Landscapes (Biodiversity Partnerships Project, BPP) (GEF ID 3859) (completed, 2011-2017)

The project was aimed at demonstrating how capacitated LGUs, in cooperation with their local and national partners and local communities can support biodiversity conservation and eco-friendly management practices, improve the livelihood opportunities of local farming communities, and sustain agriculture plant genetic resources.

Discordant policies at both the national and local levels had been partly blamed for the fragmentation that now characterizes Philippine forests. The project was conceived to address this situation of (i) inadequate policies, systems, tools and capacities at the national level; (ii) weak capacities of LGUs and lack of tools to mainstream biodiversity; and relatedly, (iii) failure to integrate biodiversity concerns in the local development planning process.

The Terminal Evaluation of the project concluded the following, which are important lessons learned for the GEF-7 project and have been taken into account in the project design.^[5]

? To the extent that the project has managed to integrate biodiversity in the preparation/updating of land-use plans of LGUs with the adoption of this policy by the pertinent agency, it achieved a solid and undeniable gain. The benefits from this integration are far-reaching and will provide a very valuable template for other LGUs to follow in the sustainable management of their forests and natural resources.

? The land-use planning process presents a highly valuable and continuing entry point to introduce biodiversity values to LGUs. This cyclical process (whether new or for revision) is legally mandated and is sometimes done perfunctorily especially in the treatment of public/forest lands, which from a conservation perspective, often coincides with KBAs. By proactively assisting LGUs in the planning process, the DENR has a window of opportunity to integrate biodiversity in the land-use planning process and affect all the other plans that depend on it.

? While the project did not achieve the desired policy outcome in the form of a DA-DENR joint administrative order, and experiences on the ground for biodiversity-friendly agricultural practices (BDFAPs) remain a work in progress, an institutional mechanism for interagency dialogue has been set in place and local BDFAP start-ups have commenced.

? On the other hand, BPP failed to achieve a similar outcome in the other thematic areas it identified for action, namely, environmental impacts, enterprise, wildlife enforcement and the setting-up of a biodiversity knowledge management system. The decision taken in the course of the project to implement these thematic areas in isolation of the others defeated the very purpose for which the project was conceived?to foster partnerships with different agencies and determine how policies, programmes and activities from seemingly unrelated programs interact and thus prevent the fragmentation of the forests brought about by divergent and conflicting policies.

The Terminal Evaluation formulated the following recommendations, among others:

? Formulation of projects should be more realistic and less overly ambitious especially when the target outcome is in the nature of policy change at the national level.

? Linking BDFE with BDFAP by studying the possibility of giving fiscal and non-fiscal incentives to agricultural activities that do not use pesticides, GMOs, among others.

? Continue the process of mainstreaming through constant application and strengthening of the foundations of the project thematic areas, including increasing budgetary commitments by LGUs.

6) UNDP GEF-4
Expanding and
Diversifying the
National System of
Terrestrial Protected
Areas (NewCAPP)
(GEF ID 3606)
(completed, 2009-
2014)

The objective of the project was to expand and strengthen the terrestrial PA system in the Philippines by developing new PA models and building capacity for effective management of the system. The project worked with LGUs, NGOs, Local Communities, and IPs/ICCs within the Protected Areas, in addressing key barriers/threats in biodiversity conservation.

The Terminal Evaluation of this project highlighted the following achievements and key recommendations, which were taken into consideration during the GEF-7 project design:[6]

? One of the key aspects of the NewCAPP Project's success has been its management and the commitment of the management team. A gauge of this has been the adaptive management and inclusive adaptation that has been exercised throughout the project, either explicitly through specific changes or implicitly through the adoption of significant managing and adaptive managing strategies.

? A major effect achieved by the NewCAPP Project has been through the work carried out with indigenous peoples' organizations.

? Another major achievement has been in piloting financing mechanisms.

? Formulation and designs of these sort of projects should be more realistic, less overly ambitious, and should acknowledge the limitations that implementing such an intervention can have.

? Exit strategy and sustainability factors should be part of the design of a project. This should include a realistic framework for results to continue after external cooperation ends.

? The participation of key institutions should be clearly stated from the design and formulation levels onward, with specific responsibilities, not being left to unclear notions, and where at all possible including concrete joint work within the sphere of a project.

? A stronger emphasis on livelihoods should be imbedded in development projects that deal with natural resource management, creating incentives for the communities and their members to incorporate sustainable management practices in their productive patterns and assimilate the benefits of protected areas for their own development while managing resources.

<p>7) UNDP GEF-4 IW Coral Triangle Initiative Sulu- Celebes Sea Sustainable Fisheries Management Project (SCS) (GEF ID 3524) (completed, 2010-2014)</p> <p>Regional project involving Indonesia, Malaysia and the Philippines.</p>	<p>The objective of this project was to improve the condition of the fisheries and their habitats in the SCS through an integrated, collaborative and sustainable tri-national management.</p> <p>The project managed to complete a transboundary diagnostic analysis (TDA), develop an initial regional strategic action program and national response in the form of national Strategic Action Programs (SAPs), produce a report on institutional strengthening, facilitated the completion of integrated fisheries management plans for municipalities in each of the three participating countries, and supported scalable demonstrations of ecosystem approach to fisheries management (EAFM) field interventions at sites in Tarakan, Indonesia and Zamboanga, Philippines.</p> <p>The lessons learned relevant to the GEF-7 project are:[7]</p> <ul style="list-style-type: none"> ? By having much of the project run by service providers, there seemed to be an over-emphasis on outputs, and there was less of a focus on intended results. ? A simple flow chart showing how the project is complementary to other regional initiatives, such as the CTI, PEMSEA, ECOFISH, etc. would greatly aid advocacy efforts. ? Linking sustainable land management with the Ecosystem Approach to Fisheries Management (EAFM) objectives. Considering the geographic characteristics in the SCS countries and the impacts associated with agriculture and forestry, including sediment loading, linking sustainable land management with improving the resilience of coastal communities should be better emphasized, in terms of livelihoods, conservation and pollution reduction targets.
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<p>8) UNDP GEF-5 Strengthening National Systems to Improve Governance and Management of Indigenous Peoples and Local Communities Conserved Areas and Territories (Philippine ICCA Project) (completed, 2015-2019)</p>	<p>The objective of the project was to strengthen the conservation and management of key biodiversity sites in the Philippines, by institutionalizing ICCAs as a sustainable addition to the national PA estate.</p> <p>The indigenous community conserved area (ICCA) of the Aeta-Magbukun in Morong that share areas with the Bataan National Park has been recognized by the UNEP-WCMC through the help of the Philippine ICCA project lead by the UNDP and BMB.[8]</p> <p>The Terminal Evaluation Report highlighted the following conclusions and recommendations, which have informed the GEF-7 project design:[9]</p> <ul style="list-style-type: none"> ? Outcome 1: The ICCA Project was instrumental in supporting the ICCA Bill and recently enacted E-NIPAS law recognizing ICCAs in Protected Areas. It revised ADSDPP guidelines, HLURB guidelines interfacing Community Conservation Plans in the LGUs Comprehensive Land Use Plans, DENR guidelines on NIPAS recognizing ICCAs in Protected areas. These outputs are either in draft form or in final stages of preparation. ? Outcome 2: The registration/recognition of eight of the 10 ICCA sites in the National ICCA Registry will be achieved by end of Project, achieving 149% of expected target. The prototype of the web based National ICCA Registry was developed by the Project. ? The project generated basic capacities that strengthened IPs governance, networking and managerial performance. Sustainable livelihood opportunities were implemented in most ICCAs. Sustainability depends on continuous commitment and support from national government agencies, LGUs and local resource partners, as well as new projects to provide continuous support and adequate companionship. ? It is probably too soon to see results in terms of environmental stress reduction. However, increased knowledge and valuation of natural resources has triggered renewed commitment towards sustainable use and biodiversity conservation. ? New projects implementing ICCAs should consider appropriate budgets to further strengthen partners' capacities at all levels, as well as to overcome technology and accessibility constraints. In terms of enabling environment for ICCAs, the transition towards NCIP taking the lead should be planned, mobilizing support from UNDP, DENR and other related NGAs.
<p>9) UNDP GEF-5 Strengthening SLM frameworks to address land degradation processes and mitigate the effects of drought in the Philippines (SLM Project) (completed, 2015-2019).</p>	<p>The project aimed to strengthen the SLM framework to address land degradation process and mitigate the effects of drought in the Philippines. The two expected outcomes were: a) effective national enabling environment to promote integrated landscape management; and) long-term capacities and incentives in place for local communities and LGUs to uptake of SLM practices in two targeted municipalities in the Philippines (Malaybalay City and Abuyog).</p> <p>It developed guidelines for SLM mainstreaming in the CLUPs, which the project will aim to apply in the LGUs of Bataan Province.</p>

<p>10) FAO GEF-6 Enhancing Biodiversity, Maintaining Ecosystem Flows, Enhancing Carbon Stocks through Sustainable Land Management and the Restoration of Degraded Forestlands (GEF ID 9554), implementation starting in 2021</p>	<p>The objective of this project is to deliver multiple and integrated environmental, livelihood and development benefits through the promotion of the cost effective and sustainable restoration of the biological and productive capacities of degraded forest land ecosystems. The project will support the effective application of diverse and sustainable restoration practices.</p> <p>Project sites: 1) Pantabangan-Carranglan Watershed Forest Reserve in the Cordillera/Caraballo Mountain Range 2) Simulao Watershed, within the Agusan River Basin in the Eastern Mindanao Biological Corridor.</p> <p>Under Activity 1.2.1, the project will document existing mechanisms to support socio-economic incentives and other benefits from restoration activities. This will involve enhancement of NTPFs value chains, enhancement of sustainable timber production, Payment for Ecosystem Services (PES), including water-based PES and carbon credits/REDD+, and ecotourism development.</p>
<p>11) UNDP GEF-7 Securing Long-Term Sustainability of Multi-functional Landscapes in Critical River Basins of the Philippines (GEF ID 10532) (in preparation)</p>	<p>This project aims to create an enabling environment for the realization of the Philippines National Land Degradation Neutrality (LDN) target, and to mainstream biodiversity-friendly agricultural practices (BDFAP) in the Cagayan de Oro River Basin (Northern Mindanao Region). The project is structured around three components: (1) National LDN and BDFAP policy created and capacity for implementation strengthened; (2) Demonstration of Sustainable Land Management (SLM) practices and BDFAP; and (3) Awareness-raising, knowledge management, and M&E. Project interventions will ensure sustainable land use in the farmed areas of important Protected Area buffer zones. This will be done through capacity building and training focused on SLM and biodiversity-friendly agricultural practices (e.g. use and preservation of indigenous/traditional crop varieties), and enhancement and valuation of ecosystems goods and services in targeted productive landscape.</p> <p>The project will create an enabling environment supporting LDN priorities/targets and BDFAP implementation, ensure conservation and sustainable use of biodiversity that would otherwise be lost or decline, and conserve important agrobiodiversity in the production landscape. At the national level, the project will facilitate the creation of the legal and regulatory framework for the implementation of both LDN priorities/targets and the BDFAP Framework. At sub-national level the project will improve the technical capacity of basin planners and managers to use decision-support tools and methods for integrated landscape planning, and increase the awareness/capacity of river basin managers and national agency staff to support the scaling up of integrated landscape management approaches. The project will also generate incentives in form of ecosystem service payments to support wide-scale adoption of SLM practices, BDFAP, and preserving the use of traditional agrobiodiversity systems in vast tracts of croplands.</p> <p>The GEF-7 Bataan project will closely exchange knowledge and lessons learned with this project, in particular with regard to SLM, BDFAPs and incentive mechanisms.</p>

<p>12) UNDP GEF 6 ? Integrated Approach in the Management of Major Biodiversity Corridors in the Philippines (IA-Biological Corridors) (GEF ID 9584) (project approved in 2020)</p>	<p>This project is aimed at addressing multiple threats by harmonizing socio-economic development, sustainable management of land, forests and other natural resources and biodiversity conservation through an integrated management approach in biodiversity corridors in the Philippines. To achieve this objective, activities are proposed to strengthen capacity and coordinated planning at the national and provincial levels on socio-economic development on the one hand, as well as demonstrate sustainable agriculture, natural resources management, biodiversity conservation and restoration, and alternative livelihood initiatives, including from a gender and indigenous people perspectives on the other.</p> <p>The project will be implemented in selected landscapes in Central Mindoro and Eastern Mindanao, covering several Protected Areas within these landscapes. The GEF-7 Bataan project will exchange knowledge and approaches regarding integrated biodiversity management with this project.</p>
<p>13) UNDP GEF-7 Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge in the Philippines (GEF ID 10079) (2021-2027)</p>	<p>The project's objective is increased economic opportunity and biodiversity conservation for local communities and indigenous peoples in the Philippines stemming from fair and equitable sharing of biodiversity benefits. The project will demonstrate benefit-sharing agreements in two communities, one of which is in Brgy. Biniritan, Morong, Bataan (the site of the UNDP GEF-5 ICCA project). The genetic resource and associated traditional knowledge that will be piloted is banaba (<i>Lagerstroemia speciosa</i>), a local plant used by the IPs for medicinal purposes. The GEF-7 project will coordinate closely with the activities of this project in Bataan Province.</p>
<p>14) Conservation International GEF-7 Philippine Rise Integrated Conservation for Enduring Legacies through Ecosystem Support Services (PRICELESS) (GEF ID 10568) (in preparation)</p>	<p>The project's objective is that by 2025, the Philippine Rise Marine Resource Reserve (PRMRR) of 352,390 hectares, consisting of a 49,684 hectares Strict Protection Zone and a 302,706 ha Multiple Use Zone, is conserved and better managed, protecting globally significant biodiversity while facilitating the sustainable use of its marine resources and generating livelihood benefits for adjacent communities.</p> <p>Under Component 3, sustainable resource use and livelihoods will be incentivized and enforcement improved in the Multiple Use Zone of the PRMRR. Although implemented in different landscapes/seascapes, the GEF-7 project will exchange knowledge and lessons with this project.</p>
<p>15) GEF-7 WWF regional project Blue Horizon: Ocean Relief through Seaweed Aquaculture (GEF ID 10573) (in preparation)</p>	<p>This IW project aims to create new sustainable seaweed value chains that will deliver ecosystem services and provide socioeconomic benefits in the Philippines and in Vietnam.</p> <p>The GEF-7 Bataan project will exchange experiences with this project with regard to sustainable coastal livelihoods.</p>
<p>16) GEF-7 WWF global project Coral Reef Rescue: Resilient Coral Reefs, Resilient Communities (GEF ID 10575) (in preparation)</p>	<p>This project aims to build capacity and solutions to ensure the long-term survival of climate resilient coral reef ecosystems, thereby supporting the blue economies and communities dependent on these reefs. The Philippines is one of the target countries of this global project.</p>

<p>17) GEF-7 UNEP Natural Capital Accounting and Assessment: Informing development planning, sustainable tourism development and other incentives for improved conservation and sustainable landscapes (GEF ID 10386) (CEO endorsement request under review)</p>	<p>This project aims to improve financial sustainability of protected areas and landscapes in the Philippines by mainstreaming the values of biodiversity and natural capital in government planning, especially for ecotourism development. Among others, the project will establish and scale up business opportunities and incentive-based mechanisms (including biodiversity-friendly social enterprises) for more sustainable activities in two protected area landscapes of Palawan and Davao Oriental provinces.</p> <p>The GEF-7 project will engage in knowledge sharing with this project, in particular related to the BDFEs and sustainable tourism in protected area landscapes and seascapes.</p>
<p>18) GEF-7 UNDP Protecting priority coastal and marine ecosystems to conserve globally significant Endangered, Threatened, and Protected marine wildlife in southern Mindanao, Philippines (GEF ID 10536) (CEO endorsement request under review)</p>	<p>This project will strengthen management effectiveness and address under-representation of Marine Protected Areas (MPAs) designed to conserve Endangered, Threatened, and Protected marine wildlife and sustain ecosystem services for human well-being. The project will be implemented in three selected project sites located in the Davao Oriental and Davao Occidental provinces in southern Mindanao: (i) Mayo Bay; (ii) Pujada Bay; and (iii) Malita - Don Marcelino. Among others, the project will support implementation of sustainable livelihoods through BDFEs. The GEF-7 project will exchange experiences and knowledge with this project in relation to the implementation of BDFEs.</p>
<p>19) FAO GCF Scaling up Climate Change Adaptation in Agriculture in the Philippines (project under formulation)</p>	<p>This project, currently under development, aims to increase the capacity of farmers and fish farmers, including women and indigenous people and their local support institutions to access and apply climate information and advisory services through mainstream programs, and thus increase their resilience to climate change and disasters and improve their livelihoods and food security.</p>

<p>20) USAID Philippines? Biodiversity and Watersheds Improved for Stronger Economy and Ecosystems Resilience Project (B+WISER) (completed in 2018)</p>	<p>The project was aimed at supporting the Government of the Philippines (GOP) in implementing environmental policies and conducting programs to prevent forest and watershed disturbances and biodiversity loss. It promoted the Landscape and Wildlife Indicator (LAWIN) Forest and Biodiversity Protection System.</p> <p>In 2018, USAID Philippines and the DENR Forest Management Bureau (FMB) conducted a study on instituting a payment for ecosystem services (PES) scheme for the conservation of forests and watersheds in the Municipalities of Bagac and Mariveles in Bataan. The PES scheme aims to pool funds from various water consumers, including households, resort owners, and business establishments, to support the protection and conservation of forests and watersheds in said areas, particularly the Bataan National Park and Mariveles Watershed Forest Reserve. A team of USAID and DENR staff surveyed about 400 households from each municipality and conducted focus group discussions to determine their perception of the importance of the forest and watershed, as well as their willingness to contribute financially to conservation activities.^[10]</p> <p>Partnerships with the private and public sectors (including LGUs) and civil society, mobilized more than Php32 million, which complemented DENR-allocated funds for forest protection. B+WISER also worked closely with the PAMBs of Northern Negros Natural Park, Mt. Kanlaon Natural Park, Mt. Apo Natural Park, and Fuyot Springs National Park (adjacent to Northern Sierra Madre Natural Park), particularly in developing user fee systems. This enabled these protected areas to generate more than Php1 million in CF. The PES scheme initiated in Bago City generated around Php3 million in contributions from water users in the area. Efforts were undertaken to replicate this scheme in Bataan National Park.^[11]</p>
<p>21) World Bank Regional Resources Management Project of the ENR Sector Adjustment Program (SAP) (IIED, 2012)</p>	<p>The project developed the capability of LGUs and communities to plan, generate and service small-scale community-based NRM and livelihood sub-projects in 28 major watersheds. It tackled upland poverty by improving community organisation, enhancing skills for NR management and sustainable upland agriculture, securing NR and land tenure arrangements, and improving access to financial resources for livelihood improvements.</p>
<p>22) EcoGovernance Program (IIED, 2012)</p>	<p>This Government program aims to improve: a) LGU capabilities to carry out good EcoGovernance; b) DENR's and other national government agencies' capabilities to support LGU initiatives on EcoGovernance; and c) DENR and LGU capabilities to derive institutional support from regional/local service providers for EcoGovernance undertakings. EcoGOV covers the promotion of sustainable upland and forest development; improvement of solid waste management; and improvement of ability to enforce environmental laws on coastal resources.</p>

<p>23) UNDP GEF Small Grants Programme (SGP)</p>	<p>The following SGP projects have been implemented in Bataan Province:</p> <ul style="list-style-type: none"> ? Rehabilitation and Conservation of Critical Resources of Bataan-Manila Bay Area. The project intended to rehabilitate Manila Bay to bring back the biodiversity through natural resource management.^[12] ? Mangrove Nursery Establishment, Mangrove Reforestation and Improvement of Existing Fish Sanctuary. The project focused on rehabilitation of mangrove forests in the coastal waters of Orion Bataan that have been a major source of fishing stock in the area. The project also targeted the Orion Kent Fish Sanctuary, established as a protected area for fish spawning through Mun Ord.No. 94-020-008 on 24 March 1994. Artificial reefs recommended by BFAR and tested in other areas (Alas-asin, Totale and Liguigas) were deployed to develop the fishing activity in the area.^[13]
<p>24) Conservation International Sulu-Sulawesi Seascape project</p>	<p>Working on marine turtle conservation in the Philippines (in-situ and ex-situ conservation).</p>
<p>25) USAID, <i>?Philippines?Protect Wildlife (Protect)?</i> (ongoing)</p>	<p>The project supports conserving biodiversity, protecting wildlife, and sustaining ecosystem services in ways that also improve the local population?s livelihoods and long-term well-being, taking into account which species are threatened, how populations are affected, and the capacity of local police and governments?to provide sustainable livelihood alternatives and promote lasting behaviour change. The project is implemented in Palawan, Zamboanga City, and Tawi-Tawi, which host some of the most biodiverse habitats and unique species in the Philippines. These provinces are also exposed to various human-induced threats such as poaching and trafficking of wildlife, destructive fishing practices, and loss of habitats from widespread conversion of forests, wetlands, and mangroves to settlements and agricultural lands.^[14]</p>
<p>26) USAID/JICA/DOF <i>?Volunteers in Environmental Governance (VEG)-II?</i> project (2006-2013)</p>	<p>The project worked with the Peace Corps Volunteers, LGUs, and the general public in coastal and marine areas on building the capacity of local governments and their communities in enhancing coastal environment protection and food security through the development and implementation of integrated coastal management (ICM) plans, and environmental education. The GEF-7 builds on some of the achievements of this project with regard to ICM.</p>
<p>27) Japan-ODA <i>?Region III-Pampanga Project for Improvement of Flood Forecasting and Warning System in the Pampanga and Agno River Basins (Phase III)?</i> (2011-ongoing)</p>	<p>The project works on the improvement of the existing gauging stations and telecommunication facilities for fast data transmission of observed data to ensure the issuance of timely and reliable warnings to flood-threatened communities. The GEF-7 will coordinate with this project, where relevant, regarding data generation and management.</p>

<p>28) Haribon/BirdLife International ? Asia Division ?<i>Chinese Crested (Sterna bernsteini) Tern Wintering Survey Chinese Crested Tern?</i> (completed, 2011)</p>	<p>The project worked on biodiversity, particularly, on the purposive search for the Chinese Crested Tern at key areas in Manila Bay, and the assessment of the current status of wetlands within Manila Bay, and the review of Philippine Important Bird Areas for other possible wintering sites. The GEF-7 will benefit from the data generated by this project.</p>
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[1] PEMSEA/UNDP (2006). Building Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) Project. Terminal Evaluation Report.

<https://erc.undp.org/evaluation/documents/detail/1192>

[2] Integrated Environmental Monitoring Program. Prepared by the Multi-Agency Technical Working Group of the Manila Bay Environmental Management Project. 2006.

[3] PEMSEA (2013) Terminal Evaluation Report for the Project for the Implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).

<http://pemsea.org/publications/reports/terminal-evaluation-report-project-implementation-sustainable-development>

[4] PEMSEA/UNDP (2021) Project Terminal Evaluation. Scaling up the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).

<https://erc.undp.org/evaluation/evaluations/detail/11163>

[5] Terminal Evaluation of the Partnerships for Biodiversity Conservation: Mainstreaming in Local Agricultural Landscapes (Biodiversity Partnerships Project). 2017.

[6] Report for the Terminal Evaluation of the Expanding and Diversifying the National System of Terrestrial Protected Areas (NewCAPP). 2016.

[7] Terminal Evaluation Report, CTI Sulu-Celebes Sea Sustainable Fisheries Management Project (SCS). 2014.

[8] <http://fasps.dentr.gov.ph/images/filedocs/factsheets/ICCA.pdf>

[9] UNDP (2019). Terminal Evaluation of the Project ?Strengthening National Systems to Improve Governance and Management of Indigenous Peoples and Local Communities Conserved Areas and Territories?. <https://erc.undp.org/evaluation/documents/download/15127>

[10] <https://forestry.dentr.gov.ph/b+wiser/index.php/bulletin/68-2018/august-2018/199-payment-for-ecosystem-services-scheme-in-bataan>

[11] Final Performance Evaluation (2019). USAID/Philippines? Biodiversity and Watersheds Improved for Stronger Economy and Ecosystems Resilience Project. <https://www.globalwaters.org/sites/default/files/philippines-b-wiser-evaluation.pdf>

[12]

https://www.sgp.undp.org/~sgpundp/index.php?option=com_sgpprojects&view=projectdetail&id=10723&Itemid=205

[13]

https://sgp.undp.org/revamp/index.php?option=com_sgpprojects&view=projectdetail&id=15963&Itemid=272

[14] <https://www.dai.com/our-work/projects/philippines-protect-wildlife-protect>

[1] Note: The Project Steering Committee will be closely coordinated with the National Steering Committee that is in place for all GEF projects in the Philippines.

[2] PEMSEA/UNDP (2006). Building Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) Project. Terminal Evaluation Report.

<https://erc.undp.org/evaluation/documents/detail/1192>

[3] Integrated Environmental Monitoring Program. Prepared by the Multi-Agency Technical Working Group of the Manila Bay Environmental Management Project. 2006.

[4] PEMSEA (2013) Terminal Evaluation Report for the Project for the Implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).

<http://pemsea.org/publications/reports/terminal-evaluation-report-project-implementation-sustainable-development>

[5] PEMSEA/UNDP (2021) Project Terminal Evaluation. Scaling up the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).

<https://erc.undp.org/evaluation/evaluations/detail/11163>

[6] Terminal Evaluation of the Partnerships for Biodiversity Conservation: Mainstreaming in Local Agricultural Landscapes (Biodiversity Partnerships Project). 2017.

[7] Report for the Terminal Evaluation of the Expanding and Diversifying the National System of Terrestrial Protected Areas (NewCAPP). 2016.

[8] Terminal Evaluation Report, CTI Sulu-Celebes Sea Sustainable Fisheries Management Project (SCS). 2014.

[9] <http://fasps.dentr.gov.ph/images/filedocs/factsheets/ICCA.pdf>

[10] UNDP (2019). Terminal Evaluation of the Project "Strengthening National Systems to Improve Governance and Management of Indigenous Peoples and Local Communities Conserved Areas and Territories?". <https://erc.undp.org/evaluation/documents/download/15127>

[11] <https://forestry.dentr.gov.ph/b+wiser/index.php/bulletin/68-2018/august-2018/199-payment-for-ecosystem-services-scheme-in-bataan>

[12] Final Performance Evaluation (2019). USAID/Philippines? Biodiversity and Watersheds Improved for Stronger Economy and Ecosystems Resilience Project. <https://www.globalwaters.org/sites/default/files/philippines-b-wiser-evaluation.pdf>

[13]

https://www.sgp.undp.org/~sgpundp/index.php?option=com_sgpprojects&view=projectdetail&id=10723&Itemid=205

[14]

https://sgp.undp.org/revamp/index.php?option=com_sgpprojects&view=projectdetail&id=15963&Itemid=272

[15] <https://www.dai.com/our-work/projects/philippines-protect-wildlife-protect>

7. Consistency with National Priorities

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

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

263. The consistency with national strategies and plans is described in the table below.

National document	Main relevant strategies
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<p>1) Philippine Development Plan (PDP) 2017-2022</p>	<p>The proposed project supports the Philippine Development Plan (PDP) 2017-2022 Chapter 20, which provides a Strategic Framework to <i>Ensure Ecological Integrity, Clean, and Healthy Environment</i>?, under three Subsector Outcomes, as follows; a) Biodiversity and ecosystem services sustained, b) Environmental quality improved, and c) Resilience of communities and their livelihood increased. Priorities under these strategies relevant to the GEF-7 project include, among others:</p> <ul style="list-style-type: none"> ? Prioritize interventions and investments to accelerate and improve forest protection and reforestation activities in critical watersheds. ? Optimize the implementation of the NIPAS Act, as amended, to improve the management of terrestrial protected areas. ? Strengthen enforcement, regulation, and monitoring of environmental compliance and management interventions. ? Promote sustainable land management (SLM) to arrest land degradation. ? Improve local capacities and skills for planning and management of land resources, and strengthen awareness and advocacy campaigns; ? Scale up and promote SLM in production landscapes and within multiple-use zones, among others. ? Expand sustainable livelihood and economic opportunities for resource-dependent and vulnerable communities. <p>The PDP Results Matrix for the Environment and Natural Resources (ENR) sector (Chapter 20) includes indicators to which the GEF-7 will directly contribute, such as:</p> <ul style="list-style-type: none"> ? Forest cover increased (in ha) ? Quality of coastal and marine habitats improved (in ha) ? Employment from ecotourism and sustainable community resource-based enterprises increased
<p>2) Bataan Sustainable Development Strategy (2006)</p>	<p>The GEF-7 project supports the mission of the Bataan Sustainable Development Strategy, which is <i>to clean the environment, develop it sustainably and make it safe from harmful human activities for use to live peacefully, blissfully and honorably amidst nature's bounty through active participation in integrated resource management efforts</i>?. Among the desired changes and outcomes, the strategy aims to achieve <i>restored and well-managed critical habitats</i>?. This includes well-maintained and sustained physical environment and biological community, integrity, and diversity.</p>

<p>3) Philippine Biodiversity Strategy and Action Plan 2015-2028</p>	<p>The GEF-7 project supports the Philippine Biodiversity Strategy and Action Plan (PBSAP) 2015-2028[2], which is also anchored in the Philippine Development Plan (PDP). The PBSAP emphasizes that people are at the core of conservation, protection, rehabilitation, and developmental initiatives. The Project contributes to the global Aichi Biodiversity Targets[3] and the Post-2020 Global Biodiversity Framework, that aims at reducing, and eventually halting, the loss of biodiversity at a global level by the middle of the twenty-first century. The project, particularly, supports the following PBSAP targets:</p> <ul style="list-style-type: none"> ? Target 7: By 2028, as result of improved conservation, ecosystem services provided by key biodiversity areas will be enhanced. ? Target 10: By 2028, the key threats to biodiversity will be reduced, controlled or managed. ? Target 13: By 2028, 50% of LGUs will have formulated and adopted the enhanced CLUP using revised HLURB framework.[4] ? Target 14: By 2028, 1 million ha of degraded ecosystems will be restored and/or will be under various stages of restoration. <p>The project will also contribute to the realization of the Aichi Biodiversity Targets under its five Strategic Goals, in at least 10 of its Targets [i.e., Strategic Goal A- Target 1; Strategic Goal B- Targets 5, 7, 8, 10; Strategic Goal C- Target 11; Strategic Goal D- Targets 14, 15; and Strategic Goal E- Target 19].</p>
<p>4) Sustainable Development Goals (SDGs)</p>	<p>The project supports the SDGs, particularly, Goal 14 ? Life below water, and Goal 15 ? Life on land, as the project will be implementing activities on land for soil and water conservation and biodiversity conservation and sustainable use, and at the coastal and marine areas for its monitoring and assessment activities. The project will also contribute to SDG 1 ? No poverty, SDG 2 ? Zero hunger, SDG 5 ? Gender equality, and SDG 13 ? Climate action.</p>
<p>5) The Updated Philippine National Action Plan (NAP) to Combat Desertification, Land Degradation and Drought (DLDD) 2010?2020[5]</p>	<p>The project contributes to Outcome 1: ?Improved living conditions of affected population? and Outcome 2: ?Improved conditions of affected ecosystems? of the NAP.</p> <p>The NAP also mentions the ongoing effort by BSWM in collaboration with LGUs in Bataan Province: Integrated Soil Conservation Techno-Demo Guided Farm. It aims to establish technology demonstration farms that showcase the adoption of soil and water conservation farming practices and approaches in upland communities. Bataan Province is mentioned among the ?Drought?Prone Provinces and Areas Experiencing Seasonal?Aridity?.</p>

<p>6) Voluntary Land Degradation Neutrality (LDN) Targets under the UNCCD[6]</p>	<p>The Philippines seeks to achieve Land Degradation Neutrality by 2030, with the following targets. Attain Land Degradation Neutrality (LDN) in:</p> <ul style="list-style-type: none"> ? At least 60% (4.05 M ha) of degraded forest, shrubland, and wetlands by 2030 and achieve the balance by 2040. ? At least 50% (2.2 M ha) of degraded croplands by 2030 and achieve the balance by 2040. ? Attain LDN in five (5) Pilot River Basins (Cagayan, Pampanga, Mindanao, Agusan, and Iloilo-Batiano River Basins). ? Strengthen consensus-based stewardship of protected areas and ancestral domains. ? Improve Soil Organic Carbon (SOC) in chemically degraded agricultural areas. ? Improve urban resilience to Climate Change and Drought by preventing further forest conversion in key watersheds and wetlands. ? Limit conversion to artificial land -- only 5% of cropland particularly in key target areas/watersheds. ? Sustain positive trends in land management (reversion from cropland to forests) particularly in key watersheds.
<p>7) Nationally Determined Contribution (NDC) under UNFCCC[7]</p>	<p>In its revised NDC submitted to UNFCCC in April 2021, the Philippines committed to reducing emissions by 75% by the year 2030 from the agriculture, waste, industry, transport, and energy sectors. The NDC upholds the importance of ensuring ecosystems integrity and promoting the country's obligations on human rights and the rights of its indigenous peoples.</p> <p>Additionally, the NDC states that the Philippines shall undertake adaptation measures across but not limited to, the sectors of agriculture, forestry, coastal and marine ecosystems and biodiversity, health, and human security, to preempt, reduce and address residual loss and damage. The Philippines shall pursue forest protection, forest restoration and reforestation, and access to results-based finance in forest conservation. The country shall also endeavor to undertake equitable adaptation strategies with mitigation co-benefits and ensure their contribution to the national pandemic recovery. The GEF-7 project contributes to these goals by promoting ecosystem management and restoration and sustainable, resilient livelihoods.</p>

[1] Philippine Development Plan 2017-2022. National Economic and Development Authority (NEDA). <http://pdp.neda.gov.ph/pdp-2017-2022-chapters/> and http://pdp.neda.gov.ph/wp-content/uploads/2021/06/Updated-PDP-2017-2022-as-of-06_29-V3.pdf

[2] Philippine Biodiversity Strategy and Action Plan 2015-2028. Department of Environment and Natural Resources (DENR), 2016. <https://www.cbd.int/doc/world/ph/ph-nbsap-v3-en.pdf>

[3] Aichi Biodiversity Targets. <https://www.cbd.int/sp/targets/>.

[4] The PBSAP notes that in 2014, the Housing and Land Use Regulatory Board (HLURB) has incorporated the mainstreaming of biodiversity in its enhanced CLUP guidelines with the assistance of the BPP, a UNDP-funded project implemented by the BMB.

[5] <http://extwprlegs1.fao.org/docs/pdf/phi152609.pdf>

[6]

https://knowledge.unccd.int/sites/default/files/ldn_targets/Philippines%20LDN%20TSP%20Country%20Report.pdf

[7]

<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Philippines%20First/Philippines%20-%20NDC.pdf>

8. Knowledge Management

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

264. Knowledge management will have an important role in achieving the project's overall impact, by supporting increased knowledge and awareness, and replication and scaling of best practices. Under Output 3.1.1, the project will implement knowledge management (KM) and communications activities with the aim to disseminate lessons learned and best practices on biodiversity-friendly agricultural practices and enterprises, soil and water conservation, and strategies for scaling harmonized land use plans and biodiversity/SLM mainstreaming in Bataan Province and beyond. First, the project will develop a project KM and communication plan. It will then implement KM and communications activities. A KM system, including a website building on DENR and MBSDMP existing platforms, will be established and maintained to share project progress towards achievement of results and knowledge developed. A provincial-level forum will be organized to introduce the project and foster ownership and buy-in from local stakeholders. A survey on the level of knowledge, attitude, and practices (KAP) on biodiversity conservation and management, and soil and water conservation measures, of targeted sectors and key stakeholders will be conducted. This will help identify whether the desired changes in practices and behaviour are being achieved, or whether the Theory of Change and its assumptions need to be adjusted. Furthermore, the project will support Information, Education and Communication (IEC) efforts of BNP and RPL. Awareness will be raised among agencies and communities within the KBA sites, the coastal areas and the general public on the biodiversity values present in Bataan Province. Best practices on harmonized planning, sustainable land management/good agricultural practices, biodiversity-friendly enterprises and their benefits and incentive mechanisms, COVID-19 response and recovery, sustainable fisheries and mainstreaming coastal and marine biodiversity, etc. will be identified, documented and disseminated. Livelihood benefits and incentive mechanisms of the project interventions will be documented with the aim of their wider adoption and scaling. Good practices on gender mainstreaming will also be documented and widely disseminated.

265. The project's knowledge management activities will also include the development of manuals and knowledge products to facilitate capacity building and transfer of knowledge among LGU personnel. This will also enable the members of the multi-sectoral platform (as proposed in Output 1.1.1) and other policy makers to access reference materials that can be used for replicating and scaling up the best practices of the project.

266. The project will organize up to two national conferences to share the success stories and lessons learned from the project along with other related GEF-supported environmental and biodiversity projects, as well as with other river basins within the Philippines. This will also involve awareness raising and advocacy to promote the recent Administrative Orders on BDFEs and BDFAPs and the Biodiversity and SLM mainstreaming guidelines. Additionally, as explained in *Section 6.b Coordination*, the project incorporates lessons learned from previous interventions in the same context. Knowledge and experiences from the project will be shared at events related to the UN Decade on Ecosystem Restoration, UN Decade of Family Farming, and the UN Decade of Ocean Science. Citizen science education/outreach program may be conducted with academic institutions such as BPSU engaging local communities in Bataan. Finally, cross-site visits will be organized to foster exchange and learning and identify champions for replication and scaling within Bataan Province. Exchange will also be supported among the marine turtle conservation network of the Manila Bay region, and awareness will be raised on turtle conservation.

267. Local stakeholders will be actively engaged in the knowledge preparation and co-dissemination processes. They will be asked to share their experiences and lessons learned, and highlighting key factors of success. Periodic review of the KM/communications plan will ensure its responsiveness to the project implementation and to project stakeholders' evolving KAP. Additionally, the regular review and validation of the Theory of Change and its assumptions under Output 3.1.3 will also flow into the knowledge creation process.

268. The relevant KM budget and key deliverables are shown below.

Deliverable	Timeline	Budget
1. Development of KM and communications strategy by National Knowledge Management and M&E Specialist	Year 1	? 26,400 (National Knowledge Management and M&E Specialist)
2. Knowledge and communications events, conferences, cross-site visits, etc. (Output 3.1.1)	Throughout project implementation	? 50,000
3. Knowledge products and communications (Output 3.1.1)	Throughout project implementation	? 23,500
4. Project Final workshop	Year 4	? 7,000
Total Budget		USD 106,900

[1] Such as the UNDP GEF-7 *Securing Long-Term Sustainability of Multi-functional Landscapes in Critical River Basins of the Philippines*, the CI GEF-7 *Philippine Rise Integrated Conservation for Enduring Legacies through Ecosystem Support Services*, and the UNDP GEF-6 *Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries (PEMSEA)* projects.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

269. Project oversight and supervision will be carried out by the BH, supported by the PTF, LTO and FLO and relevant technical units in FAO headquarters as needed. Oversight will ensure that: (i) project outputs are produced in accordance with the project results framework leading to the achievement of project outcomes; (ii) project outcomes are leading to the achievement of the project objective; (iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and (iv) agreed upon project global environmental benefits/adaptation benefits are being delivered. The FAO GEF Coordination Unit and HQ Technical Units will provide oversight of GEF financed activities, outputs and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping and supervision missions.

270. Project monitoring will be carried out by the PMU (located within the Operational Partner/OP). Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At project inception, the results matrix will be reviewed to finalize the identification of: i) outputs; ii) indicators; and iii) any missing baseline information and targets. A detailed M&E plan, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc.) will also be developed during project inception by the Knowledge Management/M&E Officer appointed at the PMU.

Project Monitoring and Evaluation Plan

M&E Activity	Responsible Parties	Timeframe	GEF Budget (USD)
Inception Workshop	Project Management Unit (PMU)	Within two months of project document signature	7,000
Participatory meetings for adaptive learning and management, review of Theory of Change and assumptions	PMU	Annually	6,400
Project Progress Reports (PPRs)	PMU, LTO/BH	Bi-annually	National Knowledge Management and M&E Specialist 26,400
Project Implementation Review reports (PIRs)	PMU, BH/LTO	Annually in July	Covered by above
Mid-term Review	PMU and BH	In the 4 th quarter of the 2 nd year of the project	40,000
Terminal Evaluation	The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED.	To be launched within six months prior to the actual project completion date	50,000
Terminal Report	PMU, BH, LTO	Two months before the end date of the project	6,550
Total Budget			136,350

271. Specific reports that will be prepared under the M&E program are: (i) Project inception report; (ii) Annual Work Plan and Budget (AWP/B); (iii) Project Progress Reports (PPRs); (iv) Annual Project Implementation Review (PIR); (v) Technical Reports; (vi) co-financing reports; and (vii) Terminal Report. In addition, assessment of the relevant GEF-7 Core Indicators against the baselines will be required at mid-term and final project evaluation.

272. **Project Inception Report.** The PMU will prepare a draft project inception report in consultation with the LTO, BH and other project partners. Elements of this report should be discussed during the project Inception Workshop and the report subsequently finalized. The report will include a narrative on the institutional roles and responsibilities and coordinating action of project partners, progress to date on project establishment and start-up activities, and an update of any changed external conditions that may affect project implementation. It will also include a detailed first year AWP/B, and a detailed project monitoring plan. The draft inception report will be circulated via e-mail to the PSC for review and comments before its finalization, no later than one month after project start-up. The report should be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FAO's Field Program Management Information System (FPMIS) by the BH.

273. **Results-based Annual Work Plan and Budget (AWP/B).** The draft of the first AWP/B will be prepared by the PMU in consultation with the FAO Project Task Force and reviewed at the project Inception Workshop. The Inception Workshop inputs will be incorporated and subsequently, the PMU will submit a final draft AWP/B to the BH within two weeks after the workshop. For subsequent AWP/B, the PMU will organize a project progress review and planning meeting for its progress review and adaptive management. Once PSC comments have been incorporated, the PMU will submit the AWP/B the LTO for technical clearance, to the BH for non-objection, and onto the FAO GEF Coordination Unit for comments prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project's Results Framework indicators to ensure that the project's work and activities are contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required during the year.

274. **Project Progress Reports (PPR):** PPRs will be prepared by the PMU based on the systematic monitoring of output and outcome indicators identified in the project's Results Framework (Annex A1). The purpose of the PPR is to identify constraints, problems, or bottlenecks that impede timely implementation and to take appropriate remedial action in a timely manner. PPRs will also report on the project's risks and implementation of the risk mitigation plan. The Budget Holder has the responsibility of coordinating the preparation and finalization of the PPR, in consultation with the PMU and the Project Task Force (PTF) members. After LTO, BH, and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

275. **Annual Project Implementation Review (PIR):** The PMU, in collaboration with the BH and the LTO, will prepare an annual PIR covering the period July of the previous year through June of the current year. The PIR needs to be submitted to the FAO GEF Coordination Unit Funding Liaison Officer (FLO) for review and approval no later than end of June/early July each year (the exact timelines for submission are communicated each year by the GEF Coordination Unit). The PMU will submit the first PIR draft to FAO BH/LTO, once finalized, the BH/LTO will submit it to the FAO GEF Coordination Unit as part of the Annual Monitoring Review report of the FAO-GEF portfolio. PIRs will be submitted to the GEF and uploaded on the FPMIS by the FAO GEF Coordination Unit.

276. **Technical Reports:** Technical reports will be prepared by national, international consultants (partner organizations under Letters of Agreement) as part of project outputs and to document and share project outcomes and lessons learned. The drafts of any technical reports must be submitted by the PMU to the BH who will share it with the LTO. The LTO will be responsible for ensuring appropriate technical review and clearance of said report. The BH will upload the final cleared reports onto the FPMIS. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

277. **Co-financing Reports:** The BH, with support from the PMU, will be responsible for collecting the required information and reporting on co-financing as indicated in the Project Document/CEO Endorsement Request. The PMU will compile the information received from the executing partners and transmit it in a timely manner to the LTO and BH. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in the PIR.

278. **Terminal Report:** Within two months before the end date of the project or the ending date of the OPA, the PMU will submit to the BH and LTO a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project, without unnecessary background, narrative or

technical details. The target readership consists of people who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for ensuring sustainability of project results.

Evaluation Provisions

279. Two independent project evaluations, a Mid-Term Review (MTR) in the 3rd quarter of project year 3 and a Terminal Evaluation (TE), to be launched within six months prior to the actual project completion date, will be carried out. The BH will arrange an independent MTR in consultation with the PSC, the PMU, the LTO and the FAO-GEF Coordination Unit. The MTR will be conducted to review progress and effectiveness of implementation in terms of achieving project objective, outcomes and outputs. The MTE will allow mid-course corrective actions, if needed. The MTE will provide a systematic analysis of the information on project progress in the achievement of expected results against budget expenditures. It will refer to the Project Budget (see Annex A2) and the approved AWP/Bs. It will highlight replicable good practices and key issues faced during project implementation and will suggest mitigation actions to be discussed by the PSC, the LTO and FAO-GEF Coordination Unit.

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

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

282. After the completion of the terminal evaluation, the BH will be responsible for preparing the management response to the evaluation within four weeks and sharing it with national partners, GEF OFP, OED and the FAO-GEF Coordination Unit.

Disclosure

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

10. Benefits

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

284. The project will generate important socio-economic benefits, including benefits for COVID-19 recovery and climate resilience, at local level in the communities of Bataan. First, it will capacitate at least 830 farmers and fisherfolk (at least 47% women), including Indigenous Peoples (IPs) to practice sustainable natural resource management, biodiversity-friendly agriculture (including forestry, fisheries, agroforestry) and restoration. The project will strengthen or newly create at least five new POs practicing biodiversity-friendly livelihoods, of which at least one is a women's group or youth group, and at least one IP group. The project livelihood and value chain interventions are expected to result in at least 1,710 beneficiaries (50% women, at least 260 IPs), contributing to COVID-19 recovery and leading to an anticipated 10% increase in income from diversified sustainable livelihoods by participating households. Finally, the project will benefit 100 farmers (50% women, at least 20 IPs) in the selected project sites that practice soil and water conservation measures. It will also reach 9,750 stakeholders (50% women) of Bataan Province by project knowledge management and communications activities. Through these interventions, the project will promote green recovery/green jobs such as in ecotourism enterprises, agroforestry product marketing, and forest carbon incentive schemes. This will contribute to full and productive employment and decent work in rural areas, aiming at the progressive realization of local peoples' right to Decent Rural Employment.^[2]

285. The project will contribute to the development of Biodiversity-Friendly Enterprises (BDFE). This initiative is guided by DENR Department Administrative Order 2021-13 or the Guidelines for the Development and Recognition of Biodiversity Friendly Enterprises (BDFEs) in Protected Areas under the National Integrated Protected Area System (NIPAS) and Conservation Areas Providing for Incentives and Mechanisms, and DENR-BMB Technical Bulletin No. 2017-11 or the Guidelines in the Identification and Recognition of Biodiversity Friendly Enterprise (BDFE). This strategy/initiative promotes non-destructive livelihood activities among the local communities to minimize their dependence on unsustainable resource extraction-based sources of livelihood. Instead, the initiative is linked to sustainable land and resource use as well as in promoting conservation of resources which is given priority, including ecotourism and the introduction of sustainable agricultural technologies in upland farming communities.

286. These socio-economic benefits are expected to translate into global environmental benefits in over 3,800 ha of landscapes and seascapes under biodiversity-friendly agriculture, forest and fisheries management practices that reduce threats to biodiversity and minimize land degradation. Agro-ecosystem services that help sustain food production and local livelihoods will be maintained or enhanced. Sustainable agriculture, agroforestry, fisheries, and aquaculture within the upland farms and coastal areas of Bataan can supplement crop yields ensuring food availability and additional income for the local communities.

287. At the provincial and national level, the project will train 250 staff (50% women) of DENR and provincial and municipal LGUs in watershed hydrology or land degradation assessments or coastal management strategies; in harmonization and biodiversity/SLM mainstreaming; and in biodiversity monitoring systems.

288. Please also refer to the Gender Action Plan in *Section 3. Gender Equality and Women's Empowerment*.

^[1] Note: The 47% women results from the greater number of men than women among fisherfolk, which are predominantly men. Generally, the project applies a percentage of 50% women beneficiaries.

^[2] For more information on FAO's work on decent rural employment and related guidance materials please consult the FAO thematic website at: <http://www.fao.org/rural-employment/en/>.

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial	High or Substantial		

Measures to address identified risks and impacts

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

Environmental and Social Risk Classification: low risk moderate risk high risk **X**

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
ESS 1: Natural Resource Management				
n/a				
ESS 2: Biodiversity, Ecosystems and Natural Habitats				

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
<p>1. Risk of unintended negative impact on biodiversity/ ecosystems may occur from the following:</p> <p>? If not designed well, enterprises (such as agroforestry, ecotourism) may negatively impact the biodiversity of the PAs and KBAs, and coastal areas.</p> <p>? BDFEs, in particular those related to ecotourism, may lead to more visitors and/or buildings/ structures within the park.</p> <p>? The development of BDFEs and their potential for revenue generation may exert pressure on the use/extraction of both timber and non-timber resources, if not done sustainably.</p>	<p>The project will ensure that interventions are environmentally sound and in line with the Park Management guidelines. Relevant screening questions have been included in the E&S Screening Tool in Annex 3.</p> <p>In particular, the project will apply sound visitor management, in line with current guidelines. Every activity within the park requires PAMB and PASu Office permission. Additionally, the project will promote sustainable waste management, recycling, and eco-friendly packaging for local products. The project will follow the ecotourism guidelines, including on incorporation of biodiversity, developed under the UNDP GEF-4 Biodiversity Partnerships Project (BPP) project. The project will advocate maximum carrying capacity limits to prevent the increase in the number of visitors to the park beyond its capacity. The project can also assist LGUs in crafting ordinances that will support the implementation and sustainability of some of the project's initiatives (e.g., PES for water or the carbon incentive system).</p> <p>Finally, the project will implement targeted IEC to influence behaviors related to livelihood activities, waste management, and adherence to PA regulations.</p>	<p>PMU, DENR-BMB/BNP-PAMO/PASu</p>	<p>Budgeted as part of activity cost</p> <p>National Safeguards Specialist</p>	<p><i>Continuous throughout implementation</i></p>

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
<p>2. Mangrove planting/ restoration in unsuitable areas may negatively impact seagrass community and mudflats.</p> <p>Bivalve culture may harm other commercially important species.</p>	<p>In case of mangrove planting/ restoration, a proper assessment shall be undertaken to assess impacts on seagrass; awareness shall be raised on the importance of conserving mudflats that are important for waterbirds.</p> <p>The project will ensure that any activities in the marine environment (such as the promotion of bivalve culture) are environmentally sound and do not harm the marine environment and biodiversity including commercially important species. Also, the project will ensure that the intensity of farming is in conformity with the carrying capacity of the marine/sea area.</p>	<p>PMU, DENR-BMB/BFAR</p>	<p>Budgeted as part of activity cost</p> <p>National Safeguards Specialist</p>	<p><i>Continuous throughout implementation</i></p>
<p>3. Risk of introducing exotic/ invasive species through reforestation activities.</p>	<p>In line with the Park Management Standards and Guidelines:</p> <p>a) Introduction of exotic species will be prohibited.</p> <p>b) Any reforestation projects to restore degraded forest land must use indigenous and endemic species.</p> <p>Relevant questions have been included in the E&S Screening Tool (Annex 3) and in the Non-Eligible Activities (Annex 1).</p>	<p>PMU, DENR-BMB/BNP-PAMO/PASu</p>	<p>National Safeguards Specialist</p>	<p><i>Continuous throughout implementation</i></p>

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
4. Access and benefit sharing	<p>The targeted protected areas are rich in genetic plant species, and some previous bioprospecting activities have been carried out.[2] However, it is not anticipated that the project activities would lead to the use/access of genetic resources or associated traditional knowledge of indigenous and local communities for research and development purposes. Nevertheless, a screening question has been added in Annex 3 (E&S Screening Tool). If applicable, the project would ensure that the Philippine legislation on access and benefit sharing would be duly followed.[3]</p> <p>The project will also exchange closely with the GEF-7 UNDP project titled "Implementing the National Framework on Access and Benefit Sharing of Genetic Resources and Associated Traditional Knowledge in the Philippines" to be implemented 2021-2027, executed by DENR-BMB.</p>	PMU, DENR-BMB	National Safeguards Specialist	<i>Continuous throughout implementation</i>
ESS 3: Plant Genetic Resources for Food and Agriculture				
n/a				
ESS 4: Animal - Livestock and Aquatic - Genetic Resources for Food and Agriculture				
n/a				
ESS 5: Pest and Pesticide Management				
n/a	<p>The project activities do not involve the procurement or handling of chemical pesticides. As a precautionary measure, a corresponding provision has been added in the screening checklist in Annex 3 (E&S Screening Tool), and in the Non-Eligible Activities in Annex 1.</p>	PMU, DENR-BMB/ DA-BSWM	National Safeguards Specialist	<i>Continuous throughout implementation</i>
ESS 6: Involuntary Resettlement and Displacement				

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
n/a	<p>The proposed project does not require land acquisition and/or resettlement and it is not expected to result in any economic displacement. It does not foresee introducing any new restrictions as it will work in existing Protected Areas and Community Managed Areas. A provision has been added in the screening checklist in Annex 3 (E&S Screening Tool), and in the Non-Eligible Activities in Annex 1, as a precautionary measure.</p> <p>In case any new CBFMAs and PACBRMAs are developed, an assessment will be conducted to ensure that these agreements will not lead to the exclusion of any existing resource users, whether these are official or informal.</p>	PMU, DENR-BMB	National Safeguards Specialist	<i>Continuous throughout implementation</i>
ESS 7: Decent Work				

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
n/a	<p>The project does not pose any risks with regard to decent work. On the contrary, the project's livelihood and value chain interventions are expected to result in at least 1,710 beneficiaries (50% women, at least 260 IPs), contributing to COVID-19 recovery and leading to an anticipated 10% increase in income from diversified sustainable livelihoods by participating households. Through these interventions, the project will promote green recovery/green jobs such as in ecotourism enterprises, agroforestry product marketing, and forest carbon incentive schemes. This will contribute to full and productive employment and decent work in rural areas, aiming at the progressive realization of local peoples' right to Decent Rural Employment.</p> <p>The project will contribute to the development of Biodiversity-Friendly Enterprises (BDFE). This initiative is guided by DENR-BMB Technical Bulletin No. 2017-11 or the Guidelines in the identification and Recognition of Biodiversity Friendly Enterprise (BDFE). This strategy/initiative promotes non-destructive livelihood activities among the local communities to minimize their dependence on unsustainable resource extraction-based sources of livelihood. Instead, the initiative is linked to sustainable land and resource use as well as in promoting conservation of resources which is given priority, including ecotourism and the introduction of sustainable agricultural technologies in upland farming communities.</p>	PMU, DENR-BMB	National Safeguards Specialist	<i>Continuous throughout implementation</i>
ESS 8: Gender Equality				

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
n/a	The project already incorporates a Gender Analysis and Action Plan, with specific gender-targeted activities built into the project design. The project is designed to ensure equal opportunities for women and men to participate and benefit from harmonized land use planning that mainstreams biodiversity and SLM, as well as from sustainable livelihood activities. This will include consultations and engaging them in decision-making processes that consider their needs and concerns. The project will also identify areas where gender inequalities can be addressed, and how women and men can be better empowered in the management, protection and regeneration of natural resources.	PMU, DENR-BMB	National Gender Specialist	<i>Continuous throughout implementation</i>
ESS 9: Indigenous Peoples and Cultural Heritage				
5. Failure to take into account the needs and priorities of IPs and their ancestral domains. (Please refer to Annex 2 IPP for details.)	The project is expected to benefit local stakeholders, including indigenous peoples, in different project activities such as training, application of new knowledge and skills and sustainable livelihoods. There is no known cultural heritage that will be affected by the project. An Indigenous Peoples? Plan (IPP) was developed during project design phase to identify risks in more detail, avoid any potential negative impacts on IPs or their ancestral domains, and to enhance benefits for IPs living in the project area. A Free, Prior and Informed Consent (FPIC) process will also be followed, as described in the IPP. The mitigation measures are described in detail in the IPP. As described in the IPP, the IPP will be discussed and validated with a wider group of IP stakeholders at the beginning of project implementation, and additional measures can be added at that stage.	PMU, DENR-BMB, NCIP	National Safeguards Specialist	<i>Continuous throughout implementation</i>

E&S Risks and Impacts	Mitigation measures	Responsible	Cost	Timeline
6. Failure to take into account the needs and priorities of other vulnerable groups.	A Stakeholder Engagement Plan and a Gender Action Plan have been developed to ensure that all stakeholders, including vulnerable groups such as women, IPs and non-tenured migrants, are engaged in, consulted and benefit from the project activities. This is also reflected in Annex H (work plan).	PMU, DENR-BMB	National Safeguards Specialist	<i>Continuous throughout implementation</i>
7. Health and safety risks related to COVID-19 or potential future pandemics or emergencies. The project activities could contribute to the spread of COVID-19 affecting indigenous peoples and local communities.	Relevant health and safety measures of the Government will be strictly followed. Safety guidelines and Personal Protective Equipment (PPEs) will be provided to prevent the risks of transmission. If necessary, mobile devices could be provided to enable virtual consultations with local communities, including IPs. The project will develop a standard operating procedure for stakeholder consultations and participatory processes in dealing with COVID-19 pandemic and related future risks and shocks. A budget line for COVID-19 prevention/health and safety measures/emergency response for IPs has been added in the budget.	PMU, DENR-BMB	National Safeguards Specialist	<i>Continuous throughout implementation</i>

[1] The Manila Bay Sustainable Development Master Plan ? Final Master Plan Report (January 2020) highlights that ?Although no complete data on seagrass loss is available for Manila Bay, it is estimated that from 30% to 50% of seagrass habitats have been lost to heavy siltation (sediment deposition), coastal development (e.g. reclamation activities) and mangrove planting.?

[2] <http://apps.worldagroforestry.org/sea/ph/sites/default/files/Biodiversity%20-%20bioprospecting%20in%20bataan.pdf>

[3] <https://legacy.senate.gov.ph/lisdata/2936825989!.pdf>

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex I1 ESMF_23 Nov2021	CEO Endorsement ESS	

Title

Module

Submitted

Risk Certification 689681 (1)

Project PIF ESS

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

Annex A1: Project Results Framework (also refer to page 127 of the project document)

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Objective: To mainstream biodiversity and sustainable land management in and around key biodiversity areas along Bataan province to Manila Bay through harmonised land use plans and frameworks while improving secure and diversified local livelihoods							
Objective-level indicators/GEBs							
GEF-7 Core Indicators	a) Core Indicator 1.2: Terrestrial protected areas under improved management effectiveness (hectares)	Baseline METT score of BNP is 67, of RPL 70 (see tracking tools)	20,790.4 ha BNP target at mid-term: 69 RPL target at mid-term: 71	20,790.4 ha BNP final target: 72 RPL final target: 74	METT assessments at mid-term and end-of-project BAMS biodiversity indicators	Increase in METT score can be achieved despite external pressures (demographic changes and climate change)	PMU
	b) Core Indicator 3.1: Area of degraded agricultural lands restored	-	40 ha	100 ha (farmland under soil and water conservation)	Project M&E survey under Outcome 2.1		PMU
	c) Core Indicator 3.4: Area of wetlands (including estuaries and mangroves) restored	-	7 ha	17 ha (mangroves under community-based restoration/management)	Project M&E survey under Outcome 2.1		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	d) Core Indicator 4.1: Area of landscapes under improved management to benefit biodiversity (hectares; excluding protected areas (PAs))	-	20752 ha (30% of final target)	69,176.6 ha [2] Includes 3,473 ha of on-the-ground interventions with local communities in PACBR MAs, CBFMAs, NGPs	Satellite images showing no net loss of forest in the target LGUs by Yr 4 [1] Baseline for the 7 LGUs to be established by the project's GIS Specialist in Year 1 based on Hansen data or Philippine national data.	Capacity building leads to improved implementation of existing plans in all 7 LGUs.	PMU
	e) Core Indicator 5: Area of marine habitat under improved practices to benefit biodiversity (hectares; excluding PAs)	-	17,802 ha (30% of final target)	59,341 ha [3] Includes 1.5 ha of Abucay sanctuary	Copies of plans and related documents under Outcome 1.1 EX-ACT file based on project M&E	Assumptions are explained in Annex N	PMU
	f) Core Indicator 6: Greenhouse Gas Emissions Mitigated (metric tons of CO ₂ e)			monitored	575,990 (direct); 836,840 (indirect)		

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	g) Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	-	5,000 (50% women)	10,000 (50% women) [4]	Project reports and M&E beneficiary surveys under Components 2 and 3		PMU
Component 1: Land use planning, supporting biodiversity and sustainable land management (SLM) enhanced at all levels							
<u>Outcome 1.1:</u> Cross-sectoral capacities strengthened to develop and implement harmonized land use plans, investment plans, and resource management frameworks in Bataan Province[5], in support of the Manila Bay Sustainable Development Master Plan (MBSDMP).	(i) No. of revised land use plans / investment plans that are harmonized and mainstream biodiversity and SLM.	Most CLUPs already in place until 2027-28. Some BD/SLM elements in local plans but not explicit and insufficient 2 existing integrated land and water use plans (Abucay, Balanga) BNP and RPL management plans recently updated	(i) At least 1 CLUP / CDP At least 1 local investment plan / annual budget At least 1 CRMP / CRMF / ADSDPP	(i) At least 2 CLUPs or CDP / PDPFP At least 2 local investment plans / annual budgets At least 1 local ecotourism plan At least 2 FLUPs At least 3 CRMPs/ CRMFs/ ADSDPPs	Copies of plans and related official documents	LGUs have sufficient incentives and commitment to integrate BD and SLM into their local plans Project timeline aligns with LGUs? timeline DTP priorities (devolution transition plan) do not hinder project progress	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Output 1.1.1</u> A multi-sectoral/multi-stakeholder platform with capacity on ecosystems management in Bataan Province operationalized to facilitate learning and sharing and harmonization of plans amongst LGUs, provincial and national stakeholders</p>	<p>(i) Multi-sectoral/multi-stakeholder platform established with women and men representation and meets regularly to monitor progress in meeting targets set out in the PDPFP and MBSDMP and provide guidance to the harmonization process.</p>	<p>Currently no integrated platform to promote BD/LSM mainstreaming in Bataan Province</p>	<p>(i) Established and meets regularly (at least twice a year)</p>	<p>(i) Established and meets regularly (at least twice a year)</p>	<p>Meeting minutes</p>	<p>Agencies and private sector actors can be mobilized despite COVID-19 recovery priorities</p>	<p>PMU</p>

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Output 1.1.2</u> Department of Environment and Natural Resources (DENR) and relevant stakeholders are capacitated to catalyze GEB[6] mainstreaming, to support implementation of the Operational Plan of the Manila Bay Coastal Strategy (OPMBCS) and the MBSDMP</p>	<p>(i) No. of staff (m/f) of DENR and provincial and municipal LGUs trained and participating in watershed hydrology or land degradation assessment or coastal management strategies.</p> <p>(ii) No. of watershed hydrology assessments conducted in Bataan.</p> <p>(iii) No. of land degradation assessments conducted at LGU level.</p>	-	<p>(i) 80 (50% women)[7]</p> <p>(ii) 2</p> <p>(iii) 2</p>	<p>(i) 200 (50% women) [8]</p> <p>(ii) 2</p> <p>(iii) 2</p>	Training and assessment reports		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Output 1.1.3</u> Key provincial institutions[9] and Local Government Units (LGUs) in Bataan Province are capacitated to review, validate and implement Comprehensive Land Use Plans (CLUPs) and relevant sectoral plans and investments to support global environment benefits</p>	<p>(i) No. of staff (m/f) of DENR, DA, provincial and municipal LGUs trained in harmonization and biodiversity/SLM mainstreaming in the existing Land Use Framework and other development plans.</p> <p>(ii) No. of local stakeholders (m/f) consulted for the harmonization and updating of plans.</p> <p>See Outcome indicator for number of revised plans.</p>	-	<p>(i) 50 (50% women)[10]</p> <p>(ii) At least 15 (50% women) per barangay/community concerned by the updated plans, including IP communities ? total estimated around 300</p>	<p>(i) 50 (50% women) [11]</p> <p>(ii) At least 15 (50% women) per barangay/community concerned by the updated plans, including IP communities ? total estimated around 600</p>	<p>Training reports</p> <p>Consultation reports</p>		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 1.1.4</u> Multi-stakeholder monitoring systems established or enhanced for biodiversity mainstreaming to support decision making	(i) No. of staff (m/f) of DENR and provincial and municipal LGUs trained in biodiversity monitoring systems (IIMS, BAMS, LAWIN, water quality monitoring). (ii) No. of staff (m/f) that use the systems following the training.	Systems currently used by BNP, RPL and DENR staff, but not widely	(i) At least 25 (50% women) (ii) At least 10 (50% women)	(i) At least 50 (50% women) (ii) At least 25 (50% women)	Training report M&E beneficiary survey		PMU
Component 2: Implementation of natural resource management and sustainable livelihoods to deliver global environmental benefits in and around key biodiversity areas (KBAs) at sub-provincial level in Bataan Province							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Outcome 2.1</u>: Local communities in and around key biodiversity areas are capacitated and incentivized to scale up livelihoods towards biodiversity-friendly enterprises while improving land and resource management (at sub-provincial level in Bataan Province)</p>	<p>(i) Areas under biodiversity-friendly agriculture, forest and fisheries management practices that reduce threats to biodiversity and minimize land degradation.</p>	<p>Existing NGP areas, CBFMAs, PACBR MAs, soil conservation demo farms, sloping agriculture technology (SALT) but they require improved management and scaling:</p> <ul style="list-style-type: none"> - 300-ha Reforestation scheme, 300-ha Agroforestry scheme - 3 PACBR MAs in BNP 345 ha - Total CBFMA areas in Bataan 7,533 ha - Total NGP area in BNP 6,783 ha 	<p>(i) 1,527 ha (40% of final target)</p>	<p>(i) 3,591.5 ha, composed of:</p> <ul style="list-style-type: none"> ? PACBR MAs practicing BDFAPs/ BDFEs/ restoration (Outputs 2.1.2 and 2.1.3): 345 ha[12] ? CBFMAs practicing BDFAPs/ BDFEs/ restoration (Outputs 2.1.2 and 2.1.3): 1,928 ha [13] ? NGP areas outside of CBFMAs/ PACBR MAs under improved practices (Output 2.1.2): 1,200 ha [14] ? Farmland under soil and 	<p>project M&E survey</p>	<p>DENR, DA and LGUs are committed to supporting BDFAPs, BDFEs, and restoration</p>	<p>PMU</p>

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Output 2.1.1</u> Capacity building of extension agents, community institutions, farmers, fisherfolk, other resources user groups to implement sustainable natural resource management in and around KBAs at sub-provincial levels in line with the existing and updated plans.</p>	<p>(i) No. of stakeholders (m/f) among community institutions, extension agents, private sector, resource user groups, farmers, fisherfolk, etc. trained in the implementation of harmonized land use plans, NRM and biodiversity-friendly practices (of which Indigenous Peoples (IPs)).</p>	-	<p>(i) 429 (47% women) of which at least 65 IPs (50% women) (50% of final target)</p>	<p>(i) 858 (47% women) [17] of which at least 130 IPs (50% women)</p>	Training reports		PMU
<p><u>Output 2.1.2</u> Communities practice sustainable natural resource management (agriculture, forestry, fisheries, agroforestry) with government and other partners, consistent with the land use plans under Outcome 1.</p>	<p>(i) No. of farmers and fisherfolks that practice sustainable natural resource management/ BDFAPs / restoration (agriculture, forestry, fisheries, agroforestry) (of which IPs).</p>	-	<p>(i) 415 (47% women) of which 65 IPs (50% women) (50% of final target)</p>	<p>(i) 830 (47% women) [18] of which 130 IPs (50% women)</p>	M&E beneficiary survey	<p>Livelihood activities can be implemented despite COVID-19 restrictions or future shocks. Sustainable practices ultimately deliver better livelihoods</p>	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 2.1.3</u> Local communities in the target areas, especially women and indigenous peoples, foster private sector partnerships and are capacitated to implement biodiversity-friendly enterprises (BDFEs).	(i) No. of POs strengthened or newly created practicing biodiversity-friendly livelihoods, of which women's groups and youth groups. (ii) No. of BDFEs recognized by DENR.	-	(i) At least 2 (ii) - (no mid-term target)	(i) At least 5, of which at least 1 women's group or youth group (ii) At least 3 (out the 5 above), of which at least 1 IP group[19]	M&E beneficiary survey	Sufficient market demand for biodiversity-friendly products and services	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<p><u>Output 2.1.4</u> Increased investment/market incentives in sustainable and diversified livelihood opportunities for local communities in upland forests and riparian/coastal zones in lieu of environmentally damaging activities, and in socio-economic recovery from COVID-19 impacts and related shocks.</p>	<p>(i) No. of beneficiaries (m/f) of livelihood/value chain interventions, contributing to COVID-19 recovery. [Note: to avoid overlap, this indicator counts beneficiaries from both Outputs 2.1.3 and 2.1.4.]</p> <p>(ii) % increase in income from diversified sustainable livelihoods by participating households</p> <p>(iii) No. of partnerships established with private sector actors such as for PES/carbon incentive schemes or ecotourism</p>	-	<p>(i) 684 (50% women) (40% of final target)</p> <p>(ii) 5%</p> <p>(iii) At least 1</p>	<p>(i) 1,710 (50% women, at least 260 IPs) [20]</p> <p>(ii) 10%</p> <p>(iii) At least 2 (1 carbon scheme, 1 ecotourism)</p>	<p>Baseline survey of income of representative sample</p> <p>M&E beneficiary survey</p> <p>DENR SEAMS / BDFE appraisal tool</p>	<p>Anticipated market opportunities materialize (such as the Manila Bay Bridge) and are not hindered by COVID-19 or other future shocks</p>	PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 2.1.5</u> Soil and water conservation implemented and groundwater sources mapped and monitored by local communities and authorities (DA-BSWM) to ensure domestic and agriculture needs are met (in times of drought).	(i) No. of farmers (m/f) in the selected project sites that practice soil and water conservation measures.		(i) 50 (50% women) (40% of final target)	(i) 100 (50% women, at least 20 IPs)[21]	M&E beneficiary survey		PMU
Component 3: Monitoring and evaluation and knowledge management							
<u>Outcome 3.1:</u> Knowledge exchange for scale-up and replication of interventions that mainstream biodiversity conservation and sustainable land management	(i) No. of stakeholders (m/f) reached by project KM & Communication. (ii) % increase in awareness, knowledge, and capacity of project stakeholders	-	(i) 3,000 (50% women) (10% IPs) (ii) At least 10%	(i) 9,750 (50% women) (10% IPs) (ii) At least 20%	(i) Project reports (ii) Knowledge, Attitudes and Practices (KAP) survey results of representative sample		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 3.1.1</u> Knowledge management and communication plans developed and implemented that incorporate project lessons and related innovative practices for scale-up in Philippines.	(i) Online portal on project learnings, exchange of good practices functional. (ii) No. of best practice documents prepared and disseminated. (iii) No. of events promoting replication and scaling at the provincial and national level.	-	(i) 1 (ii) 2 (iii) 1	(i) 1 (ii) 5 (iii) 2	Project reports and copies of knowledge products		PMU

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
<u>Output 3.1.2</u> Recommendations on biodiversity mainstreaming and integrated landscape management for effective implementation of the MBSDMP and PDPFP and local development and investment plans prepared and submitted to the relevant agencies.	(i) No. of policy recommendations prepared and submitted to the relevant agencies.	-	-	At least 2	Project reports		PMU
<u>Output 3.1.3</u> Effective monitoring and evaluation framework, incorporating gender mainstreaming and safeguards, developed and implemented to strengthen project effectiveness.	(i) M&E deliverables (reports, MTR, TE, etc. as outlined in the ProDoc) are submitted on time.	-	(i) Yes	(i) Yes	Records by KM and M&E Specialist.		PMU

[1] Please refer to the GEF-7 Results Architecture for the core indicator and sub-indicator definitions. https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.54.11.Rev_.02_Results.pdf

[2] Based on total land area of 7 target LGUs = 90,084 ha minus 20790.4 ha and 117 ha to avoid double-counting with Core Indicators 1 and 3.

[3] Based on total area of municipal waters of 7 target LGUs = 59,341 ha.

[4] See separate beneficiary file for detailed calculation.

[5] Including biodiversity and sustainable land management (SLM) mainstreaming.

[6] Global Environmental Benefits, in particular biodiversity and sustainable land management (SLM)

[7] Four (4) training sessions with at least 20 participants per session.

[8] Ten (10) training sessions with at least 20 participants per session.

[9] Such as PENRO, Provincial Agriculture Office, NCIP.

[10] 5 DENR/PENRO/PAMB, 5 DA, 5 Provincial Government staff, and 5 LGU staff per LGU (7 LGUs, total 35) = 50.

[11] 5 DENR/PENRO/PAMB, 5 DA, 5 Provincial Government staff, and 5 LGU staff per LGU (7 LGUs, total 35) = 50.

[12] Area is an estimate and includes the existing 3 PACBRMAs (345 ha). Involves 3 POs.

[13] Area is an estimate and includes CBFM areas in Dinalupihan (3), Abucay (1) and Bagac (2). These areas either possess CRMF (no earlier than 2018) or resurveyed no earlier than 2016. Involves 6 POs.

[14] Based on an estimated 12 out of 55 existing NGP areas in BNP (see separate NGP files ? 543 ha from the southeast and 660 ha northeast of BNP. Involves 12 POs.

[15] Estimate of areas that adopt soil and water conservation measures based on the BSM Demo farms and the upland farming systems developed and conducted by BPSU (100 farmers x 1 ha).

[16] Estimate based on 1.5 ha of Abucay sanctuary and 17 ha of mangrove area in Abucay.

[17] See separate beneficiary file for detailed calculation.

[18] See separate beneficiary file for detailed calculation. The 47% women results from the greater number of men than women among fisherfolk, which are predominantly men.

[19] The five POs/enterprises are anticipated to involve honey (for IP community), cashew, bamboo, ecotourism, fisheries/coastal products, etc.

[20] See separate beneficiary file for detailed calculation.

[21] See separate beneficiary file for detailed calculation.

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

Annex B: Response to Project Reviews

(from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion, and responses to comments from the Convention Secretariat and STAP at PIF).

Council comment at PIF stage	Responses
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1) Germany Comments

Germany approves the following PIF in the work program but asks that the following comments are taken into account:

Mainstreaming biodiversity in local policies is important to sustain project efforts and gain political support for ecosystem protection as an investment for the future. Germany welcomes the project with its highly participatory approach and the link to the Master Plan for Sustainable Development in Manila Bay. It demonstrates a potential for the scaling-up of lessons learnt and good practices through several key partnerships.

Suggestions for improvements to be made during the drafting of the final project proposal:

? Germany proposes to consider the following aspects for the final project proposal: During PPG clearing of how the core indicators are calculated and carrying out and document full consultation process to reflect stakeholder needs, their relevance and how their engagement will be activated.

? Multi-stakeholder platforms with mandates could prove difficult in practice as mandates are already allocated to different levels of government and cannot be easily delegated ? if this requires new policies/legislation, this can take a long time. This should be carefully considered whether it can realistically be achieved by the project.

? It is recommended to explain how investments in Bataan province will be safeguarded against inconsistent implementation of the policy for rehabilitating Manila Bay. A recent government project on beach feeding in Manila Bay, which is not part of the master plan, has raised questions about the government's view on the principles of ecology in relation to policy direction.

? Apply do-not-harm principles, particularly in areas with indigenous communities.

? PH sustainable development targets should be included, e.g. Philippine Biodiversity Strategy Action Plans (national, regional and provincial levels) and NEDA's 2040 target.

? Suggested synergies and additional, potential partners for cooperation are the national ICP (Integrated Chemists of the Philippines) and FPE (Foundation for the Philippine Environment), which has experience with community-based natural resources management in the area.

1) Calculation of the Core Indicator targets has been clarified and revised based on the more detailed baseline assessments conducted during PPG. Please refer to the relevant ProDoc sections, including *Section 6) Global environmental benefits* and *8) Summary of changes in alignment with the project design with the original PIF*. Detailed stakeholder consultations were conducted during PPG as described in the Stakeholder Engagement section.

2) It has been clarified under Output 1.1.1 that the project will build on an existing mechanism/committee and strengthen its capacity on ecosystem management. As explained in Component 1 description, the platform will build on existing committees such as the Provincial Development Council (PDC), the Bataan Sustainable Development Council or the Provincial and Municipal Land Use Committees or sub-committees. Based on the more detailed consultations to be held under Output 1.1.1, it will be agreed what will be the mandate of the platform. It is envisioned that the platform will be either of consultative or advisory nature (not a decision-making or legislative body).

3) The government project on beach nourishment in Manila Bay was conceptualized, technically assessed by DENR, and approved in 2019. It aims to rehabilitate and protect the coastal resources in the area to prevent coastal flooding and erosion. While the project will be involved in assessing soil erosion and coastal flooding, it will not

2) United Kingdom Comments

For the United Kingdom comments below, an initial agency response has been provided and can be found in the list of documents specific to the project in the GEF Portal.

? How will the similar projects in the work programme for the Philippines be coordinated with two different delivery partners?

Initial response from PIF phase:

Both projects are primarily biodiversity conservation oriented and hence has the same focal agency (DENR's Biodiversity Management Bureau) (although the FAO-GEF project also has land degradation funding). However, the focus of the CI-GEF project is on seascape protected areas, whereas the FAO-GEF project is more focused on mainstreaming conservation into local governments focused on terrestrial habitats. The geographic focus of both projects are in different parts of the country (PRICELESS (GEFID 10568) is on the Pacific (east) side while the KBA project (GEFID 10704) is on the west side). However, they complement each other and the capacity and experiences from both projects is expected to make DENR-BMB a stronger biodiversity conservation and mainstreaming organization.

In order to ensure strong coordination, we propose the following:

1. For PPG phase:

- ? Participation in each other's PPG inception workshops
- ? Sharing of draft documents for comments
- ? Organize meetings between project design teams ? at least twice
- ? Participation in final project validation workshop

2. For the full project implementation phase:

- ? FAO and CI to be observers in each other's PSC, if government agrees, where observers can propose areas of convergence between the two projects.
- ? Project level coordination meetings twice a year to share lessons/ approaches ? especially on common issues, including gender/ IP
- ? Inter-Agency meeting at national level at least once a year
- ? Joint briefings to GEF OFPs, if required

1) A detailed analysis of other GEF projects under implementation and development in the Philippines was undertaken during the project preparation phase and the proposed coordination with the said CI project revised accordingly, as described below.

1. PPG phase: The focal person of DENR-BMB for both PPGs (1) participated in the respective inception and validation workshops, and (2) shared draft documents with each of the PPG teams. In discussion with DENR, additional meetings between the project design teams were not considered necessary as the coordination mechanism was ensured through the National Steering Committee that is in place for all GEF projects in the Philippines. In turn, a meeting was organized with the UNDP GEF-6 PEMSEA project, which has the closest linkages with the GEF-7 Bataan project (as it relates to Manila Bay).

2. Implementation phase: Stakeholders expressed the view that coordination should be done as part of the existing coordination mechanism, i.e. as part of the existing National Project Steering Committee (PSC) for all GEF projects in the Philippines (as referred to in the Institutional arrangements section of the CEO ER). Also, other GEF projects were identified as having closer linkages with the GEF-7 Bataan project, so a separate coordination mechanism with the CI project was not considered justified.

Please refer to *Section 6.b Coordination with other*

<p>3) United States Comments</p> <p>We recommend greater clarity at the next phase of project development on how the project's activities would address the specific threats to biodiversity listed in the PIF.</p>	<p>1) Detailed analyses and consultations were conducted during PPG, and the Theory of Change elaborated in more detail. Project interventions were designed to address the threats to biodiversity and livelihoods. Please refer to <i>Section 3) Proposed alternative scenario</i>.</p>
<p>STAP comment at PIF stage</p>	<p>Responses</p>

1) Whilst it is good that a logic diagram of some sort is provided (?conceptual framework?), the diagram does not demonstrate a clear logic on the problem. The description of the problems and barriers are acceptable. However, there is a lack of clarity on how the outputs add together to deliver the outcomes. As currently described, the likelihood that the sum of the outputs will be sufficient to achieve the outcomes, seems remote. This is especially so given that several of the nominated barriers (let alone other plausible ones derived from the root causes) are not addressed.

STAP strongly recommends, even for a small project, that this logic be worked out better, by working back from the outcomes, and the project investment scoped to achieve something plausible, rather than spreading it thinly across many good-sounding outputs that are likely to be ineffectual. (Alternatively, there may be good reasons why these targeted investments can complement other actions in ways that really deliver all of this, in which case that logic needs to be explained more clearly so the project can follow it.) The focus should be on making the case that the proposed outputs are both necessary and sufficient to achieve the outcomes, and whether there can be confidence in the durability of the outcomes once the GEF investment finishes.

1) The project's Theory of Change and interventions were reviewed during the PPG phase with due consideration of the STAP comments. Two meetings were held with GEF STAP during the PIF and the PPG phase to seek further guidance, and their suggestions were incorporated into the project design (such as on preparing a separate Theory of Change for Scaling and Durability and incorporating considerations of behavioural change). The proposed outputs and outcomes were discussed in detail with stakeholders during the project preparation phase and are considered both necessary and sufficient to achieve the project's goal. They were elaborated in more detail in consultation with relevant stakeholders, as described in *Section 3) Proposed alternative scenario*. As described in the ProDoc, the targeted GEF investments will complement planned government investments, in particular with regards to the MBSDMP. Please also refer to *Section 8) Summary of changes in alignment with the project design with the original PIF*.

2) Other weaknesses are revealed, including: a lack of clarity on developing incentives from the private sector; difficulty seeing that 'participation' really includes a co-designing role for those whose behavior ultimately needs engaging; a tendency to focus on more planning rather than action (for all that some of this is needed); a weak knowledge management strategy unlikely to assist greatly with scaling; an inadequate climate risk assessment in a country that is already suffering impacts; and, a failure to address other trends such as in-migration which might undermine durability of outcomes. In essence, the proposal uses words (e.g. participation, planning, women and indigenous peoples, and scaling), but presents little credible depth behind them.

A set of barriers is presented concisely in the 'Conceptual Framework' diagram and elaborated in the text. These barriers are no doubt real, but for the logical framework (or a theory of change, however simple) it is worth asking the thought experiment: if these barriers were somehow completely removed, would the threats be mitigated and the claimed biodiversity benefits achieved? If not, what are other barriers? And even if so, would the proposed actions be sufficient to achieve this? This seems unlikely to STAP, as noted below.

In addition, a strong emphasis in the text is placed on 'weak involvement and commitment of local organisations and key stakeholders in environmental programs' attributed to the lack of a common ecosystems-based cross-sectoral framework for action. STAP agrees but does not see a response to this adequately addressed in the proposal.

The very large number of existing activities raises the question of whether this intervention has the resources to achieve what all of them has not.

It is credible to argue that the key missing block is coordination, but if so STAP would expect to see much more emphasis on the barriers to integration across agencies. This probably requires a powerful mandate across government to overcome siloes, probably backed by a powerful stakeholder group holding those agencies to account, and these issues of power and ability to overcome the natural agency tendency towards silos are not really addressed. It seems unlikely that simply developing a more integrated plan will overcome these deep-rooted drivers of fragmentation.

It seems implausible to STAP that the outputs proposed (even if achieved) will by themselves achieve the stated outcomes. For example, the full text of Outcome 1.1 includes 'implementation of harmonised plans' yet none of the outputs go beyond 'capacity to implement' or 'capacity to catalyse'? clearly many other things must happen for this capacity to turn into on-ground outcomes. Whilst Outcome 2 might help some implementation (this is the sort of logical alignment that it would be good to make clear in the conceptual framework), either there must be close alignment with other baseline activities for this, or the project scope is unrealistic.

2) As explained above, these points were reviewed and made clearer in the detailed project design. Please refer to *Section 3) Proposed alternative scenario*. Consultations were held with stakeholders to gain a more in-depth understanding of the barriers.

The engagement of local stakeholders is described in detail in the project's work plan and Stakeholder Engagement Plan. Local community representatives were consulted during PPG, although with some limitations due to the COVID-19 restrictions. Their inputs were integrated into the project design. Further consultations and participatory planning will be conducted during implementation.

The project outputs and interventions have been streamlined to make the project design more realistic and focused on the key interventions necessary to achieve the project's outcomes.

The lack of effective coordination mechanism is addressed under Outputs 1.1.1 and 1.1.2, which proposes to strengthen existing coordination mechanisms and institutionalize multi-stakeholder collaboration, as well as building capacity of relevant agencies and stakeholders. Furthermore, it has been made clearer that the outputs under Component 2 will support implementation of the plans developed under Component 1.

Pressures from demographic changes, migration and climate change have also been taken into account in the elaboration of the Theory of

3) In addition, Outcome 1 depends on real coordination among agencies and other organization. As noted above, much more attention to the organizational dynamics would help here? simply producing some coordinated plans is unlikely to result in implementation. To STAP the multi-stakeholder platform is probably the key element of this Outcome, if set up and resourced well, and owned by non-government stakeholders to drive the power dynamics of coordination. But if so, much more discussion of how to give it a real mandate that can over-rule tendencies to fragment, how to resource it, and how to ensure it will see benefits from the on-going work needed to achieve and maintain integration, are important missing elements. At present this is envisaged as an MSP among agencies to harmonise planning and training, without the social dynamics and demand of having community stakeholders partially driving it. This requires a sharper analysis than that currently presented.

Outcome 2 aims to 'increase the capacity' of local communities including vulnerable groups to implement some of the integrated planning from Outcome 1, yet it is not apparent that those locals want this and they are unlikely to do so unless they have a sense of ownership of the planning process. The project is delivering 'training', 'knowledge materials and hands-on manuals' and 'planning modules' and 'skill development activities'? many of these may well be needed, but are totally unlikely to be sufficient without addressing the *motivation* of the community members, not to mention their underlying time and resources to take up the ideas, especially among most vulnerable groups.

These are issues even in the short term. In the longer term, if immigration continues, can the population pressure be accommodated? Will those adopting better practices feel they have tenure security to justify their efforts? Will climate change disrupt developments?

Local engagement, including of vulnerable groups such as women, is cited. However, noting COVID, it would be good to know this is more than aspirational? do we know that locals want to make these changes? Will the local communities work together to participate? Might there be cultural or power dynamics barriers?

3) The multi-stakeholder platform at provincial level that will be established/ strengthened under Output 1.1.1, as well as the capacity building under Output 1.1.2, are two mechanisms that aim to improve coordination. However, another important element will be the working groups established at the local level under Output 1.1.3 to coordinate the planning process, along with the engagement of local stakeholders. Strong engagement of local stakeholders (at the barangay level) during planning processes has been highlighted as one of the key factors for success and ownerships of the developed plans during PPG.

The focus of Component 2 has been made clearer. This component focuses on the implementation of community-based natural resources management, in line with the plans developed under Component 1. Local community representatives were consulted during PPG, although with some limitations due to the COVID-19 restrictions. Previous focus group discussions under related research projects were also taken into account. Further consultations and participatory planning will be conducted during implementation, including with Peoples' Organizations, women's and youth groups, and Indigenous Peoples, as explained in the work plan.

Under Component 2, the project will help strengthen People's Organizations and will focus on community-based management through tenurial instruments such as CBFMAs and PACBRMAs.

<p>4) There are many other implicit assumptions which it would help to make clear and then target with some monitoring to test whether they hold up as the project unfolds ? e.g. do the sustainable practices ultimately deliver better livelihoods, etc.</p> <p>This would be greatly enhanced by monitoring and evaluation aimed explicitly at testing the assumptions underlying a ToC, in order that implementation flexibility can learn as the project proceeds. STAP?s ToC Primer discusses this process of adaptive MEL.</p> <p>In addition, Outcome 3, which deals with monitoring, should monitor the local benefits and then market them in ways that resonate with local participants, to develop and maintain their support (or change the project if these are not being generated). Demonstrating value to participants should be a key element of the ToC (which is also needed for scaling and durability) that might be elaborated ? at present it is planned to monitor % increase in income from diversified livelihoods, which is good, but is this the only benefit and how will others be convinced of it?</p>	<p>4) The assumptions were elaborated in more detail in the Theory of Change, using the guidance from the STAP TOC Primer. Adaptive planning and management, including community-based monitoring, has been incorporated into the project design.</p> <p>Monitoring of local livelihood benefits, including through participatory monitoring, has been incorporated into the project design (please refer to the work plan in Annex H).</p> <p>A separate Theory of Change for Scaling and Durability has been developed and is described in <i>Section 3) Proposed alternative scenario</i>.</p>
<p>5) STAP?s forthcoming brief on Biodiversity Mainstreaming, as well as STAP?s Theory of Change Primer, may be useful resources for the project team.</p> <p>http://www.thegef.org/sites/default/files/publications/Mainstreaming-Biodiversity-LowRes_1.pdf</p>	<p>5) Lessons learned on Biodiversity Mainstreaming, including STAP?s Advisory Document, were examined in detail and have been taken into account in the project design. Please refer to Box 9 in <i>Section 2) Baseline scenario</i>.</p>
<p>6) Project objective: Learning from objectives in other projects, the wording here could emphasize the intention to support local livelihoods as the incentive for ongoing community support; this would help highlight the joint goal of achieving both global and local benefits. E.g. ?To mainstream...<i>while improving secure and diversified local livelihoods</i>?</p>	<p>6) The objective wording has been adjusted accordingly by adding the reference to secure and diversified livelihoods.</p>

<p>7) Durability: The proposal should address durability more clearly: might drivers like climate change and population increases undermine the durability of GEBs achieved? This should be addressed in further design ? might climate change undermine the proposed diversifications? Might population increase overwhelm improved management in this region or cause damage to leak from here to surround areas? Can national policy help avoid these issues?</p> <p>In general, STAP strongly recommends that more attention be paid now to potential means of scaling later (various other mechanisms could be posited, some of which may benefit from preparatory actions during the initial project); ideally STAP suggests a separate ToC be developed for this possible eventual phase, so that the ToC for this project can be informed by what might be needed to make scaling more feasible later.</p>	<p>7) Considerations on durability and scaling were taken into account when developing the project?s Theory of Change. This is described in <i>Section 3) Proposed alternative scenario</i>.</p>
<p>8) Gender is mentioned throughout the proposal, though again rather superficially. It would be good to be more concrete about targets, such 30%+ membership of any committees.</p>	<p>8) A detailed Gender Action Plan was developed with more concrete targets, including for gender targets in committee memberships.</p>
<p>9) Risks: The risk analysis recognizes ?complacency? and low interest from stakeholders ? but this (at least, low interest?) should be a driving design feature not a post hoc risk. The risk that government agency coordination will fall apart despite the best efforts might also be addressed, since it seems to have been a persistent past problem.</p> <p>The treatment of climate risks in the PIF is simplistic (but we did not have access to any separate Climate Risk assessment). It would help to have an open appraisal of what processes will be put in place to ensure that communities are not encouraged to adopt practices or livelihoods that subsequently become maladaptive due to climate change (or indeed any other trends in drivers, e.g. population). The area is inevitably affected by floods, cyclones and sea level rise ? will changes be more resilient to these? More sophisticatedly, how will the project seek to ensure that the interventions will be robust to uncertainty in the rapidity and scale of change?</p>	<p>9) This comment has been duly addressed in the project design. In order to ensure interest from stakeholders, the project will support ongoing processes such as the CLUPs and MBSDMP, instead of separate processes.</p> <p>The climate risks are described in more detail in <i>Section 5. Risks</i>, along with COVID-19 related risks. It is also described how these risks are addressed in existing plans, and how they will be addressed through the project?s interventions.</p>

<p>10) Knowledge Management: This seems to be mainly congruent with Outcome 3, and is neither imaginative nor obviously tailored to the context, and is dominated by a diffusion push model.</p> <p>STAP would suggest that a scaling ToC would include, for example, more active engagement of local stakeholders in the knowledge preparation and co-dissemination process, as well as involving other communities in visits to/observing the successes here, to develop champions for scaling during the course of this project. Tracking the livelihood benefits (which is suggested) and then demonstrating them, as well as the success of other incentives would be other examples of explicit actions more likely to create fertile ground for scaling out.</p> <p>The success of these KM efforts should themselves be monitored and learned from.</p>	<p>10) A detailed knowledge management strategy has been elaborated during PPG and the STAP suggestions were incorporated. An activity on periodic review of the KM efforts has been added in the work plan. In addition, KM, communications and outreach will play an important role in scaling, as explained in Component 3 description.</p>
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**ANNEX C: Status of Utilization of Project Preparation Grant (PPG).
(Provide detailed funding amount of the PPG activities financing status in the table below:**

PPG Grant Approved at PIF: USD 100,000			
Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount (USD)		
	Budgeted Amount	Amount Spent to date	Amount Committed
Consultants	66,000	61,000	5,000
Contracts	3,860	1,800	2,060
Travel	23,500	-	23,500
Training	4,640	-	2,640
General Operating Expenditures	2,000	4,000	-
Total	100,000	66,800	33,200

ANNEX D: Project Map(s) and Coordinates

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

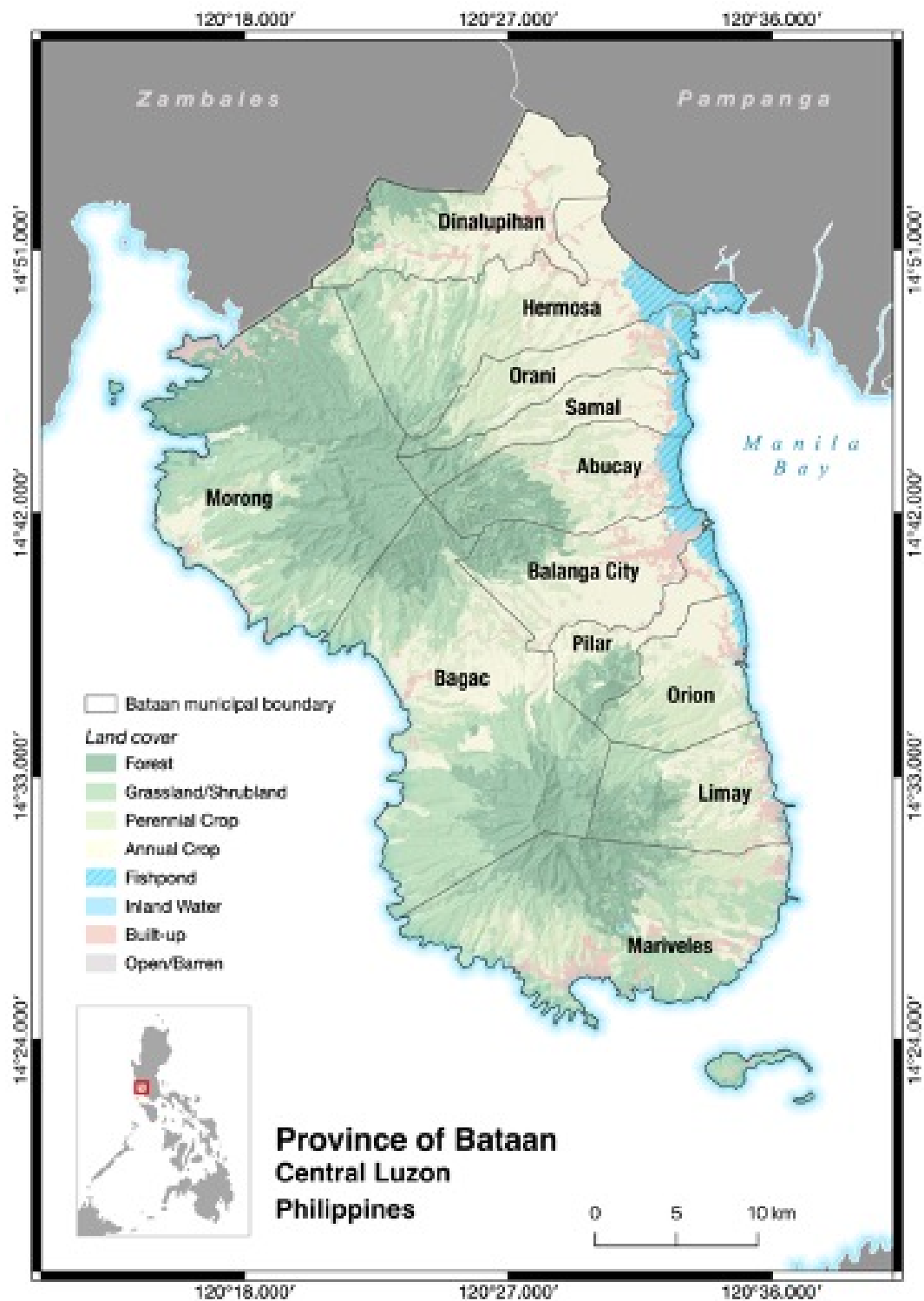


Figure 1. Map of Bataan Province and Relative Location within Manila Bay and the Philippines
 Source: Provincial Government of Bataan, Philippines, 2020; DENR BMB, 2020

ANNEX E: Project Budget Table

Please attach a project budget table.

ANNEX F: (For NGI only) Termsheet

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

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ANNEX G: (For NGI only) Reflows

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

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

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

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