



Protecting priority coastal and marine ecosystems to conserve globally significant Endangered, Threatened, and Protected marine wildlife in southern Mindanao, Philippines

Part I: Project Information

GEF ID

10536

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

CBIT

NGI

Project Title

Protecting priority coastal and marine ecosystems to conserve globally significant Endangered, Threatened, and Protected marine wildlife in southern Mindanao, Philippines

Countries

Philippines

Agency(ies)

UNDP

Other Executing Partner(s)

DENR-BMB

Executing Partner Type

Government

GEF Focal Area

Biodiversity

Taxonomy

Focal Areas, Biodiversity, Protected Areas and Landscapes, Coastal and Marine Protected Areas, Community Based Natural Resource Mngt, Biomes, Sea Grasses, Mangroves, Coral Reefs, Financial and Accounting, Natural Capital Assessment and Accounting, Conservation Finance, Species, Wildlife for Sustainable Development, Illegal Wildlife Trade, Threatened Species, Mainstreaming, Tourism, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Stakeholders, Civil Society, Non-Governmental Organization, Academia, Community Based Organization, Beneficiaries, Type of Engagement, Partnership, Information Dissemination, Consultation, Participation, Local Communities, Communications, Public Campaigns, Education, Behavior change, Awareness Raising, Indigenous Peoples, Private Sector, Large corporations, Individuals/Entrepreneurs, Capital providers, SMEs, Gender Equality, Gender results areas, Capacity Development, Participation and leadership, Access to benefits and services, Knowledge Generation and Exchange, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Enabling Activities, Knowledge Generation, Learning, Theory of change, Adaptive management, Targeted Research

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 1

Duration

60 In Months

Agency Fee(\$)

250,774

Submission Date

3/21/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-2-7	GET	2,639,726	16,079,500
	Total Project Cost (\$)	2,639,726	16,079,500

B. Indicative Project description summary

Project Objective

Strengthen management effectiveness and address underrepresentation of Marine Conservation Areas designed to conserve ETP marine wildlife and sustain ecosystem services for human well-being.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
--------------------------	-----------------------	-------------------------	------------------------	-------------------	-----------------------	--------------------------

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
1. Strengthen enabling conditions for the establishment and effective management of Marine Conservation Areas (MCAs) to support the conservation of Endangered, Threatened and Protected (ETP) marine wildlife	Technical Assistance	<p>1.1: Strengthened assessments, policy support and institutional mechanisms to support the establishment and management of MCAs for ETP marine wildlife at national, regional and local levels</p> <p><i>Indicators: By end of project,</i></p> <ul style="list-style-type: none"> · A national MCA and Marine Protected Area Network (MPAN) registry system set up · MOA signed for establishment of a Marine Wildlife Protected Area Network (MWPAN) covering all project sites <p>1.2 Improved capacities for marine wildlife conservation among DENR and DA-BFAR national and regional offices, and LGUs in the priority sites</p> <p><i>Indicators: By end of project,</i></p> <ul style="list-style-type: none"> · Improved institutional capacities for marine wildlife conservation at national, regional and local government levels, as measured by the UNDP Capacity Development Scorecard 	<p>1.1.1: Policy support provided and institutional mechanisms at various governance levels enabled for the establishment and management of MCAs for ETP marine wildlife</p> <p>1.1.2: A national MCA & MPAN registry system established and enabling more effective management</p> <p>1.1.3: Baseline information and vulnerability assessments on priority habitats and ETP marine wildlife completed and</p>	GET	739,025	4,400,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
2. Conservation of ETP MW and priority habitats within targeted MCAs	Technical Assistance	<p>2.1 Increased geographic coverage and improved management effectiveness of MCAs and the MW PAN that support conservation of ETP marine wildlife at three project sites^[1]</p> <p><i>Indicators: By end of project,</i></p> <ul style="list-style-type: none"> · 166,619 ha of newly established LCAs in sites 1 and 3, and 20,873 ha in one existing MPA in site 2, under improved management, as measured by scores on the Philippines Management Effectiveness Assessment Tool (MEAT) and the GEF Management Effectiveness Tracking Tool (METT) · At least 60% reduction of dugong mortalities and at least 55% of Marine turtle nests protected (in all project sites) · No net loss in area distribution of live coral cover, mangroves and seagrass in project sites as a result of human impacts <p>2.2 Sustainable MCA and MW PAN financing options identified and implemented</p> <p><i>Indicators: By end of project,</i></p> <ul style="list-style-type: none"> · Memorandums of Agreement (MOAs) signed between Local Government Units (LGUs) for the establishment of 2 Local Conservation Areas (LCAs) · Improved financial sustainability of MCAs through establishment of financing and revenue generation schemes, as measured through the METT Financial Sustainability Scorecard · 12,746 persons (2,059 women + 10,687 men) benefitting from project activities (supporting GEF Core Indicator 11) 	<p>2.1.1: One new MKBA designated in Project Site 1 (Mayo Bay), and existing MKBA expanded to cover adjacent municipalities in Project Site 3 (Malita/ Santa Maria/ Don Marcelino)</p> <p>2.1.2: Establishment of one new LCA each in Mayo Bay and Malita / Santa Maria / Don Marcelino, and development of LCA-wide management plans</p> <p>2.1.3: MPAs established and/or under improved</p>	GET	1,240,000	7,700,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
3. Achieving impacts through changed behaviour and knowledge management	Technical Assistance	<p>3.1: Desired behavioural change on biodiversity conservation among key stakeholders achieved</p> <p><i>Indicators: By end of project,</i></p> <ul style="list-style-type: none"> · <i>Increased compliance with relevant national and local marine wildlife, fishery, and tourism regulations as measured through post- Communication, Education and Public Awareness (CEPA) campaign study</i> <p>3.2: Improved knowledge management and scaling-up of good practices for the conservation of ETP marine wildlife</p> <p><i>Indicators: By end of project,</i></p> <ul style="list-style-type: none"> · <i>Data, strategies, and/or lessons learned by this project shared with at least 5 MPAs in other areas of the Philippines</i> <p>3.3: Project implementation is supported by a M&E strategy based on measurable and verifiable outcomes and adaptive management principles</p> <p>3.4: Gender fully mainstreamed in project interventions as indicated by the following indicators:</p>	<p>3.1.1: Communication, Education and Public Awareness (CEPA) Program formulated and effectively implemented in the project sites</p> <p>3.2.1: A national knowledge management platform established and functional</p> <p>3.2.2: Knowledge products using</p>	GET	535,000	3,640,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
			Sub Total (\$)		2,514,025	15,740,000
Project Management Cost (PMC)						
			GET		125,701	339,500
			Sub Total(\$)		125,701	339,500
			Total Project Cost(\$)		2,639,726	16,079,500

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Department of Environment and Natural Resources (DENR); Biodiversity Management Bureau (BMB)	Public Investment	Investment mobilized	4,700,000
Government	Department of Environment and Natural Resources (DENR); Biodiversity Management Bureau (BMB)	In-kind	Recurrent expenditures	300,000
Government	DENR Regional Office XI (Davao Region)	Public Investment	Investment mobilized	1,700,000
Government	Department of Agriculture (DA); Bureau of Fisheries and Aquatic Resources (BFAR)	Public Investment	Investment mobilized	3,000,000
Government	Department of Agriculture (DA); Bureau of Fisheries and Aquatic Resources (BFAR)	In-kind	Recurrent expenditures	300,000
Government	Department of Tourism (DOT)	Public Investment	Investment mobilized	500,000
Government	Department of Social Welfare and Development (DSWD)	Public Investment	Investment mobilized	300,000
Government	Local Government Units (LGUs): Provincial and Municipal	Public Investment	Investment mobilized	1,800,000
Government	Local Government Units (LGUs): Provincial and Municipal	In-kind	Recurrent expenditures	200,000

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Private Sector	Discovery Flights; Aboitiz Foundation, GLOBE; and, SMART telecommunications (TBC during PPG)	Grant	Investment mobilized	2,000,000
Others	of the Philippines; The Davao Oriental State College of Science and Technology; and, the University of Tokyo	In-kind	Recurrent expenditures	200,000
GEF Agency	UNDP	In-kind	Recurrent expenditures	79,500
Private Sector	Don Antonio O. Floirendo Sr., Foundation Inc. (AOF)	In-kind	Recurrent expenditures	1,000,000
Total Project Cost(\$)				16,079,500

Describe how any "Investment Mobilized" was identified

Investment Mobilized was identified through consultations with key government partners, who identified and committed sources of funding among on-going and newly planned programs, such as new investments in priority species conservation plans, regional protected area initiatives, coastal resource assessments, a national threat assessment of marine and aquatic species, and cash-for-work programs to enable local stakeholders to anticipate and deal with threats and impacts of climate change that are relevant to coastal and marine conservation efforts. Details are as follows: DENR-BMB, this comprises the budget to be allocated for the roll-out/implementation of the Dugong Conservation Action Plan (DCAP) and Marine Turtle Conservation Action Plan (MTCAP), for the implementation of the Coastal and Marine Ecosystems Management Program (CMEMP), the Pujada Bay Protected Landscape and Seascape (PBPLS), the Coastal Resource Management planning and activities, such as coastal assessments (DENR Regional Office XI) and for the PBPLS from the Integrated Protected Area Fund; public investment from DA-BFAR will be allotted from the Fisheries Management Area (FMA) No. 2 and a national grant from the Philippine Aquatic Red List Committee (PARLC) for the national threat assessment of marine and aquatic species; public investment from DOT-DA- Department of the Interior and Local Government (DILG)-DENR will be sourced from the Joint Memorandum Circular (JMC) on Wildlife Interaction Guidelines, Passage and Formulation of local ordinances and MCA management plans incorporating and enforcing the rules and regulations stipulated in the JMC on Wildlife Interaction Guidelines, training and deployment of MCA personnel and enforcement units to monitor and enforce the Wildlife Interaction Guidelines; the Department of Social Welfare and Development (DSWD) will explore opportunities to access funds from DSWD's cash-for-work program to enable local stakeholders to anticipate and deal with threats and impacts of climate change, the cash-for-work program may also support

actual conservation or fisheries management activities such as beach and underwater clean-ups, seasonal closures for specific fishing gear, monitoring and enforcement; Provincial and Municipal LGUs will allocate budget from their annual revenues, such as the Internal Revenue Allotment (IRA) and/or other income revenues of the two Provinces and five Municipalities; Private Sector investment is indicative at this point, collaboration with at least the following actors will be explored during PPG, telecommunication giants GLOBE and SMART to provide information technology (IT) and communication support, Discovery Flights for aerial surveys and monitoring of ETP MW, and with the Aboitiz Foundation based in Davao, which runs a turtle rescue center for stranded turtles in Davao City and engage in the monitoring of nesting beaches. In addition, academic institutions, such as the University of the Philippines, the Davao Oriental State College of Science and Technology, the Southern Philippines Agri-Business and Marine and Aquatic School of Technology, and the University of Tokyo will provide technical and scientific inputs to the project design (see Table 2) During project implementation, these academic institutions will also engaged to conduct assessments and studies related to MPA/MPAN planning and implementation.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Philippines	Biodiversity	BD STAR Allocation	2,639,726	250,774	2,890,500
Total GEF Resources(\$)					2,639,726	250,774	2,890,500

E. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

100,000

PPG Agency Fee (\$)

9,500

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

Core Indicators

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)
187,492.00	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)
166,619.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Akula National Park Malita, Santa Maria, Don Marcelino LCA	125689	Select Protected Landscape/Seascape	146,182.00			<input type="checkbox"/>
Akula National Park Mayo Bay LCA	125689	Select Protected Landscape/Seascape	20,437.00			<input type="checkbox"/>

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)
20,873.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Akula National Park Other existing MPAs in all project sites	125689	Select Protected Landscape/Seascape							<input type="checkbox"/>
Akula National Park Pujada Bay Protected Landscape and Seascape	125689	Select Protected Landscape/Seascape	20,873.00						<input type="checkbox"/>

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	2,059			
Male	10,687			
Total	12746	0	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

The project will contribute to CBD Aichi Targets 5, 6, 10, 11, 12 and 14. The figures for Core Indicators 2 and 11 were calculated as follows: • Core Indicator 2: The area of expanded / strengthened marine conservation areas is based on the following: Project Site 1: One new LCA established for the entire Mayo Bay (20,437 ha); Project Site 2: Improved management of the existing Pujada Bay Protected Landscape and Seascape (20,873 ha); and Project Site 3: One new LCA established that includes Malita (44,205 ha), Santa Maria (42,662 ha), and Don Marcelino (59,315 ha) • Core Indicator 11: The number of direct beneficiaries disaggregated by gender was calculated based on the number of potential direct beneficiaries (male and female) at the national, regional, provincial, and municipal levels engaged in project activities, e.g. training, capacity development, and/or sustainable livelihood activities resulting from project interventions. This includes persons at the national level (32 men and 18 women), regional level (6 men and 4 women), provincial level (19 men and 13 women), and municipal level (581 men and 368 women) who are expected to benefit from project capacity building interventions. The figure also includes 10,049 men and 1,656 women who are employed in the fisheries and aquaculture sectors (these figures are based on the number of the inhabitants of the five municipalities in the project sites (i.e., Mati, Tarragona, Malita, Santa Maria, Don Marcelino) and multiplying these with the percentage of people employed in the fisheries and aquaculture sectors (2.6% for men and 0.4% for women in Region XI). Persons employed in fisheries are potential beneficiaries for several reasons. First, the project is designed to reduce and eventually reverse the continuing decline of fish stocks, and it has been demonstrated in other areas that strong and effective enforcement of fishery laws and management interventions, even if restrictions on fishing are enacted in some areas, can result in increased fish stocks, e.g. through spill-over effects, which will benefit stakeholders in the fishery sector and other sectors (this has been demonstrated in the Philippine setting, e.g. Alcala et al, Russ et al, Alino, White, USAID CRM/Fish/Eco-Fish project, as well as more broadly). In addition, project activities under Output 2.2.3 on alternative sustainable livelihoods will target fisherfolk who are engaged in illegal, destructive, and unsustainable fishing practices and may be temporarily affected adversely by enforcement and management actions of the project; these fisherfolk also will be offered opportunities to become members of the community based enforcement teams (e.g., Bantay Dagat/WEOs). Finally, during the PPG phase, the number of beneficiaries from project activities relevant to other sectors (e.g. tourism) will be calculated (currently there is no reliable data available).

Part II. Project Justification

1a. Project Description

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

As an archipelagic state, the Philippines is highly dependent on its natural resources. Bordered by the Pacific Ocean in the East, the Celebes Sea in the South, the Sulu Sea and the West Philippine Sea in the West, and the Babuyan Channel in the North, it has a coastline of nearly 37,000 km. The Philippines is one of the six nations forming the Coral Triangle, an area that has more marine biodiversity than any other part of the world: 75% of coral species, 35% of all coral reefs, over 3,000 fish species, 16 species of seagrass, and six out of seven marine turtle species can be found in the Exclusive Economic Zones of these six States, even though they only cover 2% of the global ocean area.[1]¹ The Philippines has been recognized as a mega-diverse country, but it is also identified as among the 36 biodiversity hotspots[2]² and its marine biodiversity is affected by numerous threats that ripple throughout the ecosystem and eventually rebound back onto humans.

The term Marine Conservation Area (MCA) is used to encompass all types of marine protection in the Philippines. Within the category of MCAs are the following (listed from the weakest to the strongest in terms of legislative protection): Marine Key Biodiversity Areas (MKBAs), Marine Protected Areas (MPAs), Critical Habitats (CHs), Local Conservation Areas (LCAs), and Marine National Integrated Protected Areas System (NIPAS) Sites (see Annex D for additional information). Although there are a large number of MCAs in the Philippines, many MCAs are essentially “paper parks”. In 2018, 59% of the MPAs using the MPA Management Effectiveness Assessment Tool (MEAT) were rated as either level 0 or 1,[3]³ which means they have yet to enforce the management plans.[4]⁴ Another study found that the extent and distribution of MPAs do not adequately represent biodiversity or ensure adequate connectivity[5]⁵, with 85% of the no-take area attributed to only two sites, and with 90% of MPAs less than 1 km² in size. Connecting small, locally-managed MPAs to form MPA Networks (MPAN), is a means to potentially improve MPA effectiveness through more cost-effective management and improved enforcement, addressing the inter-connectivity of ecosystems and protecting species migration routes.[6]⁶

Marine megafauna such as various cetaceans, dugongs, sharks, rays, and turtles, most of which are considered as Endangered, Threatened and Protected (ETP) species[7]⁷ in the Philippines, are particularly threatened as their habitat is much larger than that of smaller species, and encompass a variety of ecosystems and locations. A Philippine Red List of Threatened Species has been developed that identifies threatened species and places them into IUCN Red List categories based on the status of local populations in the country. This categorization was recently updated in 2019, which shows that local populations of all species of marine turtles and the dugong remained either classified as Critically Endangered or Endangered. However, the protection of ETP Marine Wildlife (MW) has seldom been a decisive factor in MCA establishment in the Philippines. Populations of ETP MW species in the Philippines continue to decline, due to loss of habitat and coastal development, illegal, destructive, and unsustainable fishing and poaching, and vulnerabilities to impacts of climate change continue (see Annex E for additional details). The removal of ETP MW may have broad-scale systemic effects[8]⁸ and lead to the loss of ecosystem services for human well-being. In the Philippines, the following ETP MW are under particular threat:

- The **Dugong** (*Dugong dugon*) is classified as Vulnerable in the IUCN Red List, but in the Philippines, the national Red List assessment classifies the species as Critically Endangered, and populations of dugongs are now on the brink of local extinction.
 - Five **marine turtle** species can be found in the Philippines. Three species have been classified as Endangered (green turtle (*Chelonia mydas*), olive ridley turtle (*Lepidochelys olivacea*), and loggerhead turtle (*Caretta caretta*)), and two as Critically Endangered (hawksbill turtle (*Eretmochelys imbricata*) and leatherback turtle (*Dermochelys coriacea*)) in the 2019 assessment. Three of these species are placed in a higher category in the Philippines than their populations in the global IUCN Red List.
 - For the **cetaceans**, at least 29 species, two subspecies (i.e., spinner dolphin: *Stenella longirostris longirostris* and *Stenella longirostris roseiventris*) and three subpopulations (i.e., Irrawaddy dolphin, *Orcaella brevirostris*: *O. brevirostris Malampaya Sound population*; *O. brevirostris Iloilo-Guimaras population*; and *O. brevirostris Quezon, Palawan population*) (*Malampaya Sound population*) are confirmed present in the Philippines. At least 91% of the species reported are Data Deficient but the remaining species assessed are in the IUCN threatened categories. The two subpopulations of Irrawaddy dolphins are Critically Endangered[9]⁹, humpback whales (*Megaptera novaeangliae*), and Irrawaddy dolphins are Endangered, and Fraser's dolphin (*Lagenodelphis hosei*), spinner dolphin (*Stenella longirostris*), Indo-Pacific bottlenose dolphin (*Tursiops aduncus*), and the sperm whale (*Physeter macrocephalus*) are Vulnerable. Although these species are protected under Philippine laws, threats to cetacean species and subpopulations persist.
 - For **whale sharks, mantas, and other cartilaginous fishes** (i.e., sharks, skates, rays, and chimaeras—collectively referred to as “sharks”), 204 species are nominally listed and 116 species (54%) are confirmed to occur in Philippine waters[10]¹⁰. Of the 204 species, close to 80% (157 species) were evaluated using the IUCN Red List Assessment process and 28% (57 species) were assessed as threatened. Four species are Critically Endangered, namely the Pondicherry shark (*Carcharhinus hemiodon*), and three sawfish species (i.e., knifetooth sawfish, *Anoxypristis cuspidata*; largetooth sawfish, *Pristis pristis*; and green sawfish *P. zijsron*); 11 species are Endangered (8 species of true sharks, including the whale shark (*Rhincodon typus*) and hammerheads (i.e., scalloped hammerhead, *Sphyrna lewini*; great hammerhead, *S. mokarran*; and smooth hammerhead, *S. zygaena*), as well as the knifetooth sawfish, ornate eagle ray, *Aetomylaeus vespertilio*, and ocellate eagle ray, *Aetobatus ocellatus*); and 18 species of true sharks and 24 batoid
-

species are Vulnerable. At the national level, the whale shark and reef manta ray (i.e., *Mobula alfredi*) are assessed as Endangered and Critically Endangered, respectively. At least 25 species are protected through CITES listing and national/local level legislations, but most are still under threat.

With 2.9% of its people employed in the fisheries and aquaculture sector[11]¹¹, a thriving marine environment is essential in order for the Philippines to ensure stable ecosystems and human well-being. However, largely unregulated and unsustainable fishing practices result in an increase in abandoned, lost, or otherwise discarded fishing gear (ALDFG), which continues to catch and kill target and non-target marine wildlife, including ETP MW, leading to severe environmental, social, and economic impacts. This situation is further aggravated by unsustainable, destructive, and illegal fishing practices, such as dynamite fishing or commercial fishing boats and/or active gear in municipal waters, which also continue to decimate numbers of ETP MW. Tourism (including snorkelling, diving, marine mammal watching tours, and other forms of “sun and sand” tourism) is a very important economic sector and source of income for many people and relies heavily on marine and coastal ecosystem services including the diversity of species found in the archipelago. Population declines of ETP MW and the degradation of coastal ecosystems, such as coral reefs, seagrass beds, mangrove forests, and beaches, will threaten ecosystem services that are important for human well-being. In many parts of the Philippine archipelago, there has been a surge in nature-based tourism during the past two decades, which involves tourist interactions with ETP MW, e.g. marine turtles, dugongs, whale sharks, thresher sharks, manta rays, whales, and dolphins. This economic activity has been bringing in a large influx of tourists alongside intensive coastal and beach development. While tourism has been generating diverse sources of income for local and national communities and businesses, there have been serious concerns regarding its detrimental impacts on the populations of ETP MW, which are the subjects of tourist interactions as are their habitats and thus the ecosystems they depend on. **Guidelines for responsible eco-tourism development in the Philippines need to be promoted, e.g. by replicating lessons learned from successful initiatives in LGUs. One example is whaleshark watching in Donsol, a municipality that developed and successfully implemented eco-tourism development plans, focusing rather on responsible ETP-MW interaction than mass tourism.**

Project sites

The proposed interventions will take place in three priority sites located in southern Mindanao -- Mayo Bay, Pujada Bay, and Malita **(during the PPG phase, the project partners also will consider adding other sites as suggested during stakeholder workshops, such as parts of the waters surrounding the Mati Peninsula).** The project sites were chosen based on the following criteria: 1) the status of the MCAs at each site, and 2) the presence and current status of ETP MW and priority coastal and marine habitats/ecosystems. All three of the project sites harbour ETP marine wildlife: three marine turtle species nest on the beaches of Mayo Bay; whale sharks and a number of cetaceans are frequently spotted in Pujada Bay; and spinner dolphins and pilot whales are seen in the Malita area. Dugongs are present in all three project sites. **Although these sites only constitute part of the habitat for these migratory species, species such as marine turtles and dugongs have exhibited high site fidelity in the selected project sites, as these are important developmental and foraging habitats; field research from DENR PENRO Region XI (2016) showcases the presence of both dugongs, marine turtles in extensive seagrass areas in Mayo Bay and Pujada Bay, and Malita is important habitat for dugongs, cetaceans, and whalesharks (see Map 5 and Map 6). Thus, the establishment and management of local MPAs and MPA networks that encompass priority habitat for ETP MW can provide significant benefits; long-term studies reveal that the many migratory marine species fill their own ecological**

niches and show considerable site fidelity in well-defined habitats and that populations often overlap in distribution and habitat use (see Lascelles et al., 2012^[12]; Lascelles et al., 2014^[13]).

-
- [1] ASEAN, 'Seagrass', ASEAN Clearing House Mechanism, accessed 25 November 2019, http://chm.aseanbiodiversity.org/index.php?option=com_content&view=article&id=169&Itemid=169; Clive Wilkinson, 'Status of Coral Reefs of the World: 2008' (Townsville, Australia: Global Coral Reef Monitoring Network and Reef and Rainforest Research Centre, 2008), https://www.icriforum.org/sites/default/files/GCRMN_Status_Coral_Reefs_2008.pdf.
- [2] Critical Ecosystem Partnership Fund, 'Explore the Biodiversity Hotspots | CEPF', 2019, <https://www.cepf.net/our-work/biodiversity-hotspots>.
- [3] Diovanie De Jesus, '2018 Status of Philippine MPAs' (The Marine Science Institute, University of the Philippines Diliman, 2018).
- [4] De Jesus.
- [5] Weeks, R. et al. (2010.) Effectiveness of marine protected areas in the Philippines for biodiversity conservation. *Conserv. Biol.* 24, 531-540
- [6] Horigue, et al. (2012). Marine protected area networks in the Philippines: Trends and challenges for establishment and governance. *Ocean & Coastal Management*. 64. 15–26. 10.1016/j.ocecoaman.2012.04.012.
- [7] 'Bycatches of Endangered, Threatened and Protected Species in Marine Fisheries', *Reviews in Fish Biology and Fisheries* 28, no. 3 (September 2018): 521–41, <https://doi.org/10.1007/s11160-018-9520-7>.
- [8] Gray and Kennelly.
- [9] PARLC SC Cetaceans, 'Philippine Aquatic Red List Committee - Sub-Committee Cetaceans - 2019 Checklist', 2019.
- [10] Philippine National Plan of Action for the Conservation and Management of Sharks [NPOA-Sharks] 2017-2022)
- [11] PSA, 'Statistical Tables on Labor Force Survey (LFS): April 2019 | Philippine Statistics Authority'.
- [12] Ben G. Lascelles et al., 'From Hotspots to Site Protection: Identifying Marine Protected Areas for Seabirds around the Globe', *Biological Conservation* 156 (November 2012): 5–14, <https://doi.org/10.1016/j.biocon.2011.12.008>.
- [13] Ben Lascelles et al., 'Migratory Marine Species: Their Status, Threats and Conservation Management Needs: MIGRATORY MARINE SPECIES: CONSERVATION MANAGEMENT NEEDS', *Aquatic Conservation: Marine and Freshwater Ecosystems* 24, no. S2 (November 2014): 111–27, <https://doi.org/10.1002/aqc.2512>.
-

Table 1: Project Priority Sites in Region XI

Site	Priority Area	Municipalities	Province	Hectares	Current Status	Proposed Action / Status	Management Authority
1	Mayo Bay	Mati and Tarragona	Davao Oriental	20,437	Mostly unprotected (several small MPAs established)	Designate MKBA, establish LCA, establish MPA, strengthen management effectiveness of existing MPAs	MENRO/ MAO/ LGU
2	Pujada Bay	Mati	Davao Oriental	20,873	Legally protected (NIPAS Site), but inadequate management	Strengthen management effectiveness of NIPAS Site and of existing locally-managed MPAs within	PAMB (NIPAS) and MENRO / MAO/ LGU
3	Malita	Malita	Davao Occidental	44,205	Existing MKBA; several MPAs established	Expand MKBA, establish LCA, strengthen management effectiveness of MPAs	MENRO/ LGU
	Santa Maria	Santa Maria	Davao Occidental	42,662	Mostly unprotected (one MPA established)	Include in Malita expanded MKBA, establish LCA, strengthen management effectiveness of existing MPAs	MENRO/ LGU
	Don Marcelino	Don Marcelino	Davao Occidental	59,315	Mostly unprotected (several small MPAs established)	Include in Malita expanded MKBA, establish LCA, strengthen management effectiveness of existing MPAs	MENRO/ LGU

The current status of protection varies among the three sites and comprises different governance levels:

- Project Site 1: Mayo Bay is mostly unprotected. The project proposes to designate the entire area of the bay (20,437 ha), encompassing portions of the municipal waters of Mati and Tarragona, as an MKBA, and following, as an LCA. In addition, the project aims to establish one new MPA within the LCA, and to strengthen the management of existing MPAs. A joint management agreement between Mati and Tarragona for the whole of Mayo Bay has been discussed, with areas for protection and/or improved management still to be identified. Mayo Bay, which includes seagrass beds, coral reefs and patches of mangroves, harbours a population of Dugongs, as well as a nesting area for Green, Hawksbill, and Olive Ridley turtles at Dahican beach.
- Project Site 2: The Pujada Bay Protected Landscape and Seascape (PBPLS) has an area of 20,873 ha and was designated as a NIPAS Site in 1994, which theoretically ensures the highest level of protection for the bay. However, a recent management effectiveness assessment report found problems with the management structure and effectiveness of the PBPLS board, and identified cultural and social threats, energy production and mining, and invasive and other problematic species and genes as prevalent threats[1][2], and recent stakeholder consultations have reported significant shark and whale finning operations in Pujada Bay. The PBPLS scored 48% in the Management Effectiveness Tracking Tool (METT), and 79% in the MEAT assessment, suggesting that the management effectiveness of this site needs to be strengthened.
- Project Site 3: An MKBA with an area of 44,205 ha is located in Malita; the project proposes to expand the area of this MKBA to include the neighbouring municipalities of Santa Maria (42,662 ha) and Don Marcelino (59,315 ha), and then to establish an LCA coinciding with the MKBA boundaries. Several MPAs appear to already exist in the three municipalities, but their legal and management status is unclear.

-

Threats

Both Davao Oriental and Davao Occidental are among the poorest provinces in the country[3], and this high poverty incidence may be among the drivers that may push community members to engage in illegal, destructive, and unsustainable practices. For example, the major drivers for illegal fishing practices and poaching are declining fish stocks that themselves are the result of overexploitation and poverty, i.e. a lack of other income sources.[4] Anthropogenic threats to coastal and marine biodiversity, including ETP MW and ecosystem services, include the following:

-

Coastal Habitat Loss and Degradation: The number of people migrating to coastal areas is steadily increasing, with about 70% of the population in the Philippines living within, or having access to, coastal waters[5]. The presence of large human populations in coastal areas can degrade ecological integrity through improper solid and liquid waste management, siltation and sedimentation, mining, aquaculture, deforestation, industrial and domestic waste dumping, agricultural runoff, and reclamation and development.[6] Poorly planned and executed coastal development, such as residential housing, resorts, and infrastructure, combined with a lack of enforcement, lead to ecosystem degradation and destruction[7]. In Don Marcelino, landslides and road construction have led to severe sedimentation; in an effort to mitigate the landslides, sea walls were built, but these led to the destruction of marine turtle nesting beaches. In Malita, resorts are illegally encroaching on mangrove areas and in some areas, these development activities have displaced communities from their residences. Mining activities are impacting Mayo Bay and Pujada Bay, while a coal-fired power plant recently established on the coast of Malita was reported to cause pollution and sedimentation. In Don Marcelino, agricultural runoff from a nearby banana plantation is believed to be impacting nearby coral reefs. In Dahican Beach in Mayo Bay, rampant development of tourism establishments is causing noise and light pollution well that impact turtle nesting, while in Malita, resorts have been built in close proximity to turtle nesting beaches. Tourism operations that promote diving with dugongs have forced dugongs to change their foraging habitats in some areas.[8][9] Boat strikes and jet-ski strikes are a direct threat, particularly to dugongs and marine turtles, and have been the cause of many animal mortalities and strandings in the Philippines.[10]

Poaching of ETP marine wildlife: Although the Philippines enacted a Wildlife Conservation and Protection Act (RA 9147), enforcement of the Act is often weak and poaching of marine species is widespread. Poachers target live turtles and turtle eggs, dolphin and whale fins, and other animals / animal parts that are sold domestically and internationally as meat for consumption, traditional medicine, jewellery, or as taxidermied animals. In Mayo Bay, it was reported that poaching of marine turtles and their eggs is still prevalent, primarily by locals for local consumption, while in Mati there are reports that cetaceans have been poached by fishermen from China, Korea and Taiwan.

-

Illegal, Destructive and Unsustainable Fishing: Coastal and marine ecosystems and ETP MW are highly threatened by illegal, destructive and unsustainable fishing practices, including fishing in protected areas; the use of prohibited gear in municipal waters; commercial fishing in municipal waters; destructive fishing practices, such as dynamite and cyanide fishing; and most importantly, unsustainable fishing practices leading to overexploitation of local marine resources as well as an increase in ALDFG which causes entanglement, injury, and drowning of marine wildlife. Alava et al.[11] state that fisheries by-catch and strandings leading to dugong mortalities have been increasing in many parts of the country, and Trono and Fischer[12] confirmed 11 reported dugong mortalities during the preparation of the Dugong Conservation Action Plan (DCAP) over the course of 17

months. In the proposed project site in Davao Gulf, local communities have reported dugong entanglements in fine-meshed gill nets, which led to mortalities. The Fisheries Code (RA 8550, as amended by RA 10654) has sufficient regulations and penalties to protect dugongs from fishing, but enforcement is weak in most parts of the country.

Climate Change: Modelling of climate change trends in the Philippines predicts stronger and more frequent typhoons, which will lead to increased strandings of marine wildlife, scarcity of prey, inundation of turtle nests, and changes in the sex ratios and nesting patterns of some species.[13] Marsh et al.[14]¹⁴ predict that increases in severe tropical storms and floods as well as altered coastal environmental conditions will impact dugongs and their habitat in the Philippines. Other expected impacts include erosion/siltation affecting seagrass areas, changes in salinity levels, and damage to mangrove forests and coral reefs including destruction and bleaching.[15]¹⁵ Coral reefs in Malita have suffered from bleaching, and there have been outbreaks of crown of thorns in both Pujada and Mayo Bay.

Barriers

Due to the above mentioned threats, the management effectiveness of MCAs in the Philippines needs to be strengthened and the underrepresentation of MCAs designed to conserve ETP MW and thus sustain ecosystem services for human well-being needs to be addressed. However, there are a number of barriers to addressing these challenges. Although the baseline scenario described below identifies numerous programs and projects for the conservation of marine wildlife and their habitats, they do not effectively address the barriers that are causing the continuing decline of marine wildlife populations in the Philippines, and without GEF funding, these barriers will persist and drive ETP MW species to local extinction. The main barriers are listed as follows:

Weak enabling conditions for the management of MCAs as a mechanism for the effective conservation of coastal habitats and ETP marine wildlife: Although marine wildlife conservation is addressed by legal instruments such as the Wildlife Act (RA 9147), the Fisheries Code (RA 8550, am. RA 10654), the NIPAS Act (RA 7586, am. 11038), the Local Government Code (RA 7160) and the Civil Code (RA 386), actions under these laws need to be coordinated for effective implementation, enforcement, monitoring and reporting. However, efforts to do so are impeded by a lack of capacity and funding support for the responsible agencies. Effective MCA management is constrained by a lack of institutional and policy support and oversight, as well as the unavailability of financial resources and competent personnel at the national, regional, and local levels with the required knowledge, resources and capacity to effectively manage marine wildlife. Institutional responsibilities for marine wildlife also need to be clarified / coordinated; at present marine turtles and dugongs are under the mandate of DENR-BMB while all other marine and aquatic species are under the mandate of DA-BFAR. In addition, there is an urgent need to standardize criteria and methodologies to ensure that MCAs are established with the specific objective of conserving and providing effective and sustained protection for ETP MW. The lack of recent comprehensive assessments of coastal and marine ecosystems, as well as insufficient and scarce baseline data on ETP MW population sizes, distribution, and migration

routes, has led to the inadequate representation and insignificant geographic coverage of MCAs to conserve ETP MW species. Data on hotspots for threats, volume of bycatch, strandings, releases, and deaths of marine wildlife found in nets or on beaches are also deficient, primarily due to incoherent reports and the lack of reporting mechanisms. In addition, the management plans of most existing MCAs do not consider the potential impacts of climate change, such as the degradation of coastal and marine habitats from increased storm frequency. At the local level, there is a limited capacity within LGUs to perform their mandated roles in coastal resource management, for example formulating Coastal Resources Management (CRM) Plans. Agreements between LGUs are scarce, which constrains the effective management of ETP MW, which are often highly migratory and use various habitats in different sites throughout their life cycle, as well as limiting the potential for developing synergies in enforcement, financing, training, etc.

Ineffective, reactionary, and sporadic actions for the conservation of ETP MW and insufficient geographic coverage of MCAs for the protection of ETP MW and priority habitats:

The small size of most MPAs in the Philippines and the lack of effective and sustained enforcement render the protection of ETP marine wildlife, such as most marine megafauna and connected ecosystems, difficult. MPAs in the Philippines are established to meet objectives relating to fisheries sustainability, biodiversity conservation, and tourism and recreation; the inclusion of representative ecosystems that are required by ETP MW to successfully complete their life cycles is typically not considered, nor are considerations of the size and spacing of MCAs so that they can act as stepping stones and form effective MPA networks. And while the presence of ETP marine wildlife is a criterion for the establishment of MKBAs, LCAs and CHs, management and enforcement of ETP MW conservation at these sites remain sorely inadequate. Although DENR has designated 123 MKBAs nationally based on the presence of ETP MW, local actions rarely take ETP MW into account when carrying out conservation actions on the ground. Likewise, DENR's flagship national Coastal and Marine Ecosystems Management Program (CMEMP), which is designed to comprehensively manage, address and effectively reduce the drivers and threats of degradation of the coastal and marine ecosystems, rarely includes the conservation of ETP MW in management activities on the ground. In addition, the diversity of sustainable MCA and MPAN financing options in the country is very limited, and there are few examples of sustainable livelihood activities for local stakeholders based on conservation initiatives. In addition, although nature-based tourism is an important ecosystem service provided by ETP MWs, there are growing concerns that tourist interactions with marine wildlife have become detrimental to species and ecosystems, a problem compounded by the lack of and/or weak enforcement of national and local guidelines for sustainable tourism practices relevant to marine wildlife.

Poor understanding of and support for conservation of marine habitats and ETP MW species among local stakeholders and resource managers:

Although MCAs in the Philippines have had some successes in conserving marine wildlife, these have not been sustained. For example, the Pawikan Conservation Project of the DENR carried out intensive management and strict enforcement of regulations on nesting beaches in the Philippine Turtle Islands Wildlife Sanctuary for over a decade from the mid-1980s to the mid-1990s, but when management and enforcement waned, local communities resumed their poaching activities and intensive beach development including the building of houses on nesting beaches took place, with highly negative impacts on local turtle populations. These kinds of examples underscore the vital importance of improved understanding and changed attitudes among local residents and authorities regarding marine conservation, so that behavioural changes become ingrained in local beliefs, practices and systems. These stakeholders are not sufficiently aware that ETP MW and their priority habitats generate benefits that greatly outweigh the costs of their conservation, including the long-term economic benefits of nature-based tourism, the food security benefits of maintaining productive marine ecosystems, or the resilience benefits provided by natural ecosystem protection from impacts of severe weather conditions such as storm surges. At present, there are no knowledge management systems in the country designed to share information

and lessons learned on the conservation and management of ETP MW and their habitats. Moreover, there is a lack of awareness on the interlinkages of terrestrial, freshwater, coastal and marine ecosystems, as well as the downstream effects of anthropogenic destructive activities, such as logging, agriculture, mining etc. A deeper understanding, awareness, and appreciation of these interlinkages and downstream impacts among local stakeholders and policy makers can result in better designed coastal planning and development that addresses the drivers of natural resource degradation through appropriate policies and practices. In addition, there is a lack of awareness of potential climate change impacts, so that most communities are unable to anticipate and respond to potential risks and disasters.

[1] CTI, 'Benchmarking the Management Effectiveness of Nationally-Managed Marine Protected Areas in the Philippines and Policy Recommendations', 2013, http://www.coraltriangleinitiative.org/sites/default/files/resources/58_Benchmarking%20the%20Management%20Effectiveness%20of%20Nationally-Managed%20Marine%20Protected%20Areas%20in%20the%20Philippines%20with%20Policy%20Recommendations_Final%20Report.pdf.

[2] CTI.

[3] Davao Oriental is part of Cluster 3 and Davao Occidental belongs to Cluster 2, referring to poverty clusters from 1-5, with Cluster 1 comprising the poorest Provinces and Cluster 5 the least poor Provinces.

[4] IUCN, 'The IUCN Red List of Threatened Species - Dugong Dugong', IUCN Red List of Threatened Species, 12 July 2015, <https://www.iucnredlist.org/species/6909/43792211>.

[5] Ellen M Hines et al., eds., 'Dugongs in Asia', in *Sirenian Conservation - Issues and Strategies in Developing Countries*, 1st ed., 2012, 20; H. Marsh et al., eds., *Dugong: Status Report and Action Plans for Countries and Territories*, Early Warning and Assessment Report Series 1 (Nairobi, Kenya: United Nations Environment Programme, 2002).

[6] Hines et al., 'Dugongs in Asia'; Helene Marsh, Thomas J. O'Shea, and John E. Reynolds III, *Ecology and Conservation of the Sirenia - Dugongs and Manatees* (University Press, Cambridge, 2011); Marsh et al., *Dugong*.

[7] Angel C. Alcala, 'Philippine Strategy on Climate Change Adaptation: Coastal and Marine Sector' (Dumaguete City, Philippines: Siliman University, 2010).

[8] 'Dugongs in Asia'.

[9] Hines et al.

[10] Australian Government, 'Nomination for Listing a Key Threatening Process under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)' (Australian Government - Department of the Environment, 2007), <https://www.environment.gov.au/system/files/pages/87ef6ac7-da62-4a45-90ec-0d473863f3e6/files/nomination-boat-strike-2007.pdf>.

[11] *Red List Status of Marine Mammals in the Philippines* (BFAR-NFRDI, 2012).

[12] Romeo B. Trono and Cecilia Fischer, 'Dugong Conservation Action Plan (2020-2030). Unpublished.' (DENR-BMB, 2020).

[13] Alava et al., *Red List Status of Marine Mammals in the Philippines*; PCP and Toba Aquarium, 'Dugongs of the Philippines - A Report of the Joint Dugong Research and Conservation Program', 1995.

[14] *Ecology and Conservation of the Sirenia - Dugongs and Manatees*.

[15] Alcala, 'Philippine Strategy on Climate Change Adaptation: Coastal and Marine Sector'.

2) The baseline scenario and any associated baseline projects

Baseline Scenario

National priorities for the Philippines in biodiversity conservation have been established through the Philippine Biodiversity Strategic Action Plan (PBSAP) and the Philippine Development Plan (PDP) 2017-2022. The Philippine Wildlife Act (RA 9147) of 2001 provides two agencies the responsibility for the conservation of ETP MW species. The Department of Environment and Natural Resources (DENR)-Biodiversity Management Bureau (BMB), specifically the Wildlife Resources Division, is responsible for dugongs and marine turtles, while the Department of Agriculture (DA)-Bureau of Fisheries and Aquatic Resources (BFAR) is responsible for the remaining marine wildlife (e.g., cetaceans, elasmobranchs, fish). Both BMB and BFAR have limited capacity to carry out conservation of ETP MW; neither agency has a dedicated unit with qualified staff to carry out these functions. The division of management and jurisdiction between these two agencies highlights the need for strong collaboration between them in order to ensure that interventions concerning the protection and management of ETP MW, spanning from marine turtles and dugongs to cetaceans and sharks, can be jointly developed and implemented.

Under the NIPAS Act of 1992, the Integrated Protected Area Fund (IPAF) was established, a trust fund with the purpose of financing the projects within NIPAS (244 sites as of 2018). Sources of incomes can be derived from: a) Taxes from the permitted sale and export of flora and fauna and other resources from protected areas; b) Proceeds from the lease of multiple use areas; c) Contributions from industries and facilities directly benefiting from the protected area; d) Other fees and incomes derived from the operation of the protected area; as well as grants, donations and endowments.[1] 75% of this income is allocated to the protected areas that generate this revenue, and 25% is allocated to support non-earning protected areas as well as the operation of the IPAF Governing Board.[2] The challenge concerning IPAF is the capacity of PAs to develop and implement revenue mechanisms that will accrue to this Fund. Very few PAs are charging user fees, thus, are not able to implement sustainable PA interventions.

Associated Baseline Projects

The project will build on and/or coordinate with a number of important baseline initiatives. Several of these are past project that have established important baseline conditions, information and lessons that the proposed project will build on. One of these is the Coastal Resource Management Project (CRMP; 1996-2004), which provided technical assistance and training to coastal communities, LGUs, NGOs, and National Government Agencies (NGAs) for the management of coastal resources in the Philippines. The proposed project aims to further develop the baseline work established by the CRMP in terms of community-based coastal resource management; local government capacity building; policy analysis and formulation; and Communication, Education and Public Awareness (CEPA) programs. The Philippine Environmental Governance (EcoGov) Project (2001-2011) provided technical assistance to the DENR and LGUs in the management of coastal and fishery resources, the implementation of solid waste management plans, and the promotion of good governance practices. In 2007, the EcoGov project assisted LGUs in Davao Gulf in conserving marine turtles and other ETP MW through an awareness campaign, an MPA ordinance covering three MPAs, and a management plan in Punta Dumalag. Davao Gulf was also given technical assistance in the solid waste and wastewater management by the

EcoGov Project. The proposed project will use lessons learned from EcoGov, particularly related to the conservation of ETP MW and MPAs in Davao Gulf, as well as in the capacity building of local stakeholders and long-term desired behaviour change. A national process to identify Key Biodiversity Areas (KBAs) was carried out from 2006-2009[3], which identified 228 KBA sites in the country, of which 123 were categorized as marine, including KBAs in two of the proposed project sites (Pujada Bay[4] and Malita). This process follows the global standard for KBAs and has become the basis for investments by donors and conservation organizations as well as the DENR, for example, Davao Gulf and Sarangani Bay, which are MKBAs supported under the GEF-UNDP SMARTSeas Project and USAID Protect Wildlife Project, respectively.

The proposed project also will coordinate with several on-going projects to strengthen their contributions to marine wildlife management in existing MCAs and MPANs relevant to marine wildlife. DENR-BMB is implementing the Sustainable Coral Reef Ecosystem Management Program (SCREMP; 2012-2020), which is a national program to promote a sustainable, ecosystem-based approach in protecting and rehabilitating coral reef ecosystems to increase marine biodiversity and fish stocks and address food security. One of the pilot sites in the Davao Region is the PBPLS. The proposed project may utilize results and lessons learned for the establishment/designation of proposed MCAs, and can build on the SCREMP's effort to improve coastal resource management. The DENR-BMB is also implementing the Coastal and Marine Ecosystems Management Program (CMEMP; 2017-2028), which is working to achieve the effective management of the country's coastal and marine ecosystems and thereby increasing their ability to provide ecological goods and services to improve the quality of life of the coastal population. The proposed project aims to build on and further the work DENR-CMEMP has begun, which includes the establishment and strengthening of MPANs; capacity building on coastal and marine management; and ecosystem valuation. The USAID Protect Wildlife project (2015-2020) is providing technical assistance on PA strengthening and enforcement etc. to various sites including Sarangani Bay (WDPA ID 305927). This project will explore the potential for partnerships and other collaboration with existing MPA management units in Sarangani Bay in terms of the MWPAN. Finally, the USAID-funded FishRight Program, which commenced in 2018, is supporting fisheries management by promoting interventions at ecosystems levels, focusing on the sustainability of target species and their ecosystems through gear-specific and species-specific management, establishment of MPA networks, and zoning areas for fisheries. The proposed project aims will use lessons learned especially from fisheries zoning areas and MPAN establishment. The Transboundary Diagnostic Analysis for the Sulu Celebes Seas (SCS) LME (2013) identified six priority transboundary problems: Unsustainable Exploitation of Fish; Habitat Loss and Modification; Climate Change; Marine Pollution; Freshwater Shortage; and Alien and Invasive Species. Although the SCS Regional Strategic Action Program (RSAP, 2013) focused on sustainable fisheries management, particularly on small pelagic fisheries, it also included priority Targets and Proposed Activities “to strengthen law enforcement through cooperation and exchange of information among marine law enforcers; to implement sustainable alternative / diversified livelihood sources”, to which this project will make contributions. Furthermore, this project will address issues on habitat loss and modification with proposed interventions to protect and manage seagrass beds, coral reefs, mangroves and nesting beaches situated within the project sites. The project will likewise contribute in implementing actions on Monitoring Control and Surveillance (MCS) for IUU fishing (theme #3 of the RSAP) by supporting effective marine law enforcement in municipal waters of the project sites to halt illegal, unsustainable and destructive fishing. This will be addressed through the project TWG and the bilateral DENR-BMB/DA-BFAR convergence.

In terms of programs and projects focused on ETP marine wildlife, the project sites overlap extensively with Priority Conservation Areas for dugongs, marine turtles, cetaceans, whale sharks, elasmobranchs, seagrass, and seaweed, as shown in Annex E, section D. With regard to dugong conservation the project strategy will be aligned with the recently completed Dugong Conservation Action Plan (DCAP), which is a roadmap for dugong conservation in the Philippines for at least the next 10 years, and is the most comprehensive

compilation of information, data, and past, present, and proposed conservation initiatives for dugongs in the Philippines. **The DCAP offers a national level framework that can be rolled out to local levels of governance and can guide implementation on how to achieve those commitments.** The proposed project will also build on data collected and incorporate the results and lessons learned from a number of previous projects, including the DENR-BMB Pawikan Conservation Project and Toba Aquarium of Japan – Joint Dugong Research and Conservation Project; data on dugong mortalities that has been collected by the DENR-BMB since 1999; and a comprehensive study[5] in the project sites in 2016 that includes a physical inventory of dugong populations, i.e. their spatial distribution in Mayo and Pujada Bay, and the results of ground-truthing through land/shore-based surveys, boat based surveys, and aerial surveys; toxicology; and seagrass profiling assessments. The project also will seek to learn from multi-sectorial conservation approaches for dugongs and seagrass areas developed by the NGO Community Centred Conservation (C3), in particular lessons learned on participatory consultation approaches and the use of traditional knowledge. For marine turtle conservation, the project will be aligned with the Marine Turtle Conservation Action Plan (MTCAP), which is a roadmap guiding interventions on marine turtle conservation in the Philippines for at least the next 10 years, and has significant information on the current status of marine turtles in the country, the policy framework for turtle conservation, and an Action Plan. **The MTCAP is ready to be rolled-out to the regions, provinces and municipalities, and implementation guidance will be provided to local partners. This proposed GEF project is anchored in the MTCAP and is expected to contribute to the attainment of its objectives.** The proposed project will also build on lessons learned and data and experience generated on marine turtle management, enforcement, and protection through the Pawikan Conservation Project (PCP), and on the work of the will use the coordinating mechanisms, structure, and lessons learnt from the Philippine Marine Turtle Protected Area Network (MTPAN) as a reference for the establishment and management of the proposed Marine Wildlife Protected Area Network (MWPAN) encompassing the three project sites. With regard to conservation of cetaceans, whale sharks and elasmobranchs (sharks, rays and skates) current government efforts through DA-BFAR focus on extinction risk assessments using the IUCN Red List process (at the national level), developing legislation for improved protection and management of threatened species and sites, and capacitating local stakeholders. In addition, cetacean surveys conducted under the SMARTSeas Project in 2016[6] and 2018[7] identified various species congregating around the mouth of Davao Gulf (project site 3); these and other surveys will provide the baseline data from which conservation measures as well as the potential for cetacean-based eco-tourism can be derived. **The Donsol Whale Shark Ecotourism Project was developed in response to the 1998 ban on whale shark fishing in the country, which disrupted the livelihoods of local communities, and transformed former whale shark hunting communities into one of the best examples of wildlife ecotourism in the country to date.[8] On Malapascua Island (Daanbantayan) baseline activities to establish a scuba diving industry focused on pelagic thresher sharks helped the community recover after the devastation brought about by tropical typhoon Haiyan (Yolanda) in 2013.[9] Both of these projects will provide valuable lessons for the proposed project on linking conservation of ETP MW with local livelihoods.”** Finally, numerous past surveys and experiences in the Philippines have established cost-effective methods for conducting field surveys using distance sampling techniques and rapid participatory cetacean- and shark-fisheries interactions assessments, which will be applied in the assessment of ETP MW in the project sites.

Finally, a number of recent and on-going GEF-supported projects are relevant to the proposed project. The GEF/UNEP-DENR “Natural Capital Accounting and Assessment: Informing development planning, sustainable tourism development and other incentives for improved conservation and sustainable landscapes” (approved in Dec. 2019) project will seek opportunities for collaboration and information sharing with the on-going NCAA project. Among other activities, the NCAA project will work in and around the Mount Hamiguitan Range Wildlife Sanctuary, which is adjacent to two of the bays targeted by this proposed project; this presents an opportunity to encourage the NCAA project to undertake activities that have a positive impact on the water quality in these bays. Additional details on potential collaboration with the NCAA project are provided in the

Coordination section below. The GEF/CI-Rare project “The Meloy Fund: A Fund for Sustainable Small-scale Fisheries in Southeast Asia” (2017-2022) is working to to strengthen the capacity and constituency amongst fishers and communities to support sustainable fishing practices and to improve regulations regarding fisheries violations in priority marine ecosystems. The GEF/UNDP-DENR project “Strengthening the Marine Protected Area System to Conserve Marine Key Biodiversity Areas” (SMARTSeas; 2014-2021) is being implemented by DENR-BMB and has brought together various stakeholder groups to reduce the degradation of marine and coastal habitats through strengthening of MPAs and the establishment of MPA networks. The GEF/ADB-DENR “Integrated Coastal Resources Management Project” (ICRMP; 2006-2012) supported the establishment of MPA networks in priority marine biodiversity corridors that serve as migratory pathways for flagship species and facilitate dispersal of coral larvae and other organisms to depleted areas. The ICRM plans and efforts that this project undertook in Pujada Bay, Davao Oriental constitute important baseline efforts to develop policy and institutionalize coastal resource management and biodiversity conservation, including establishing functioning MWPANs. The GEF/WB-DA “Philippine Rural Development Project” (PRDP; 2014-2021) has been working to increase rural incomes and enhance farm and fishery productivity through inclusive rural development, including investing in the establishment and management of fish sanctuaries across its project sites, and has developed important lessons on MPA establishment and management, biological assessments (e.g. seagrass assessments), and livelihood recommendations for fisherfolk. The GEF/ADB-DENR project “Combating Environmental Organized Crime in the Philippines” (2016-2021) has established important data and lessons on the status of wildlife law enforcement in the country; training strategies for wildlife law enforcement; and the identification of major poaching, transshipment, and confiscation sites. Finally, the GEF/UNEP-Mohamed bin Zayed Species Conservation Fund “Dugong and Seagrass Conservation Project” (2015-2018) strengthened the capacity of stakeholders at local, national, regional (inter-country) and global levels to protect dugongs and their seagrass habitats, and developed important case studies on livelihood creation to preserve dugong habitats.

[1] Government of the Philippines, ‘Republic Act No. 7586 | GOVPH’, Official Gazette of the Republic of the Philippines, 1992, <https://www.officialgazette.gov.ph/1992/06/01/republic-act-no-7586/>.

[2] Alexander D. Anda, Jr., ‘An Institutional Assessment of the Integrated Protected Area Fund (IPAF) in the Philippines’ (Economy and Environment Program for Southeast Asia, 2006), https://www.researchgate.net/publication/46465536_An_Institutional_Assessment_of_the_Integrated_Protected_Area_Fund_IPAF_in_the_Philippines.

[3] R.G.R. Ambal et al., ‘Key Biodiversity Areas in the Philippines: Priorities for Conservation’, *Journal of Threatened Taxa* 04, no. 08 (6 August 2012): 2788–96, <https://doi.org/10.11609/JoTT.o2995.2788-96>.

[4] The PBPLS was already established as a Protected Area under the e-NIPAS law and is thus part of a stricter governance level

[5] “Dugongs and Marine Turtles Comprehensive Biological Research in Mayo Bay”. PBPLS DENR Regional Office XI-Provincial Environment and Natural Resources Office (PENRO) and Davao Oriental State College of Science and Technology-RIC XI

[6] AL Barcelona et al. 2016. Cetacean Survey for Davao Gulf 2016. WWF-Philippines Smart Seas Project. 28pp (unpublished)

[7] AL Barcelona et al. 2018. Cetacean Survey for Davao Gulf 2018. WWF-Philippines Smart Seas Project. 29pp (unpublished)

[8] Balisacan, Ryan. (2012). Harmonizing Biodiversity Conservation and the Human Right to Livelihood: Towards a Viable Model for Sustainable Community-Based Ecotourism Using Lessons from the Donsol Whale Shark Project. *Ateneo Law Journal* Vol. 57 pp. 423-462

[9] Marine Wildlife Watch in the Philippines. (2016) Thresher Sharks in the Philippines.

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

In order to strengthen the management effectiveness and address underrepresentation of MCAs designed to conserve ETP MW and sustain ecosystem services for human well-being, the proposed project takes a three-part approach. Under Component 1, the project will create or improve enabling conditions to ensure that assessments are strengthened and that policies, institutional mechanisms, and capacities are in place and sufficient to effectively address the identified threats and barriers. Under Component 2, the project will increase the geographic coverage as well as the management of MCAs and establish an MWPAN, improve practices in marine habitats and ecosystems beyond the boundaries of MCAs for conservation and sustainable use, identify sustainable financing options, and support the effective enforcement of policies and regulations. Under Component 3, the project is designed to bring about sustainable impacts to invoke changes in the perceptions, attitudes, practices and behaviour of stakeholders through a corresponding CEPA Program, improved knowledge management, and by ensuring that positive changes are maintained and relapses are avoided. Effective and sustainable actions to conserve biodiversity rely on stakeholders sharing data, information, knowledge and experience. The project will ensure that knowledge and best practices generated are available in a transparent manner and effectively communicated with a broad range of stakeholders, including women. Philippine laws and policies (e.g., RA 9710) ensures women's human rights empowerment and participation in natural resource governance. Although women have various roles in communities, their participation in decision-making and leadership related to the environment is low[1], and the project will ensure that gender and a human rights based approach will be mainstreamed in all relevant aspects of the project design and implementation (see Output 3.4.1).

Component 1: Strengthen enabling conditions for the establishment and effective management of Marine Conservation Areas (MCAs) to support the conservation of Endangered, Threatened and Protected (ETP) marine wildlife

-
Outcome 1.1: Strengthened assessments, policy support and institutional mechanisms to support the establishment and management of MCAs for ETP marine wildlife at national, regional and local levels.

Output 1.1.1: Policy support provided and institutional mechanisms at various governance levels enabled for the establishment and management of MCAs for ETP marine wildlife: Relevant national, regional, and local government agencies will be targeted under this Output. The Project will demonstrate a methodology for designing MCAs with an ETP MW perspective, which in effect will also demonstrate and promote coastal habitat interconnectivity that BMB can potentially later adopt for replication. In order to identify, establish, expand, effectively manage, and monitor MCAs and Marine Wildlife Protected Area Networks (MWPANs), methods, tools, and/or guidelines will be reviewed and best practices identified, in order to develop standardized and coherent criteria and methodologies. These will be used to improve capacities of relevant agencies for the assessment, identification,

designation, and management of MCAs, addressing ecosystem inter-connectivity, as well as the inclusion of ETP MW in policy making, and institutional strengthening (see Output 1.2.1). As part of the policy support, Comprehensive Land Use Plan (CLUPs) of all project sites will be reviewed, e.g. of whether Coastal Resource Management (CRM) Plans are included, and will be harmonized with all other municipal plans as well as the guidelines drafted for the MWPAN. The Project will further make use of innovative technologies, such as WildALERT, an app that was recently developed by USAID under the Protect Wildlife Project in order to assist law enforcers in identifying wildlife species and reporting wildlife crimes in the field.

Output 1.1.2: A national MCA & MPAN registry system established and enabling more effective management: The project will assist BMB in updating the Environmental Critical Area (ECA) list of the Environmental Management Bureau (EMB) and ensure that MCAs containing ETP MW are registered as ECAs on EMB's list. Once listed, potential development projects in these sites will require stricter Environmental Impact Assessments (EIAs) and more stringent Environmental Compliance Certificates (ECCs), affording ETP MW species and their habitats stronger protection under the Environmental Impact Assessment System (EIAS) of the Philippines (Presidential Decree 1586). Thus, the establishment of the registry system will fast-track and guide the EIA review process, ensure that the reviewers take careful note and consideration of the presence of ETP MW and important habitats, and lead to more stringent stipulations in the ECC. In addition, an MCA & MPAN database will be established as a publicly accessible and functional national online platform that will include information on MCAs, such as extent, purpose, legal status, Management Effectiveness Assessment Tool (MEAT) / Management Effectiveness Tracking Tool (METT) results etc., by integrating information from existing platforms. The database could form part of an academic website, such as the University of the Philippines-Marine Science Institute, or be part of the national database of the Coastal and Marine Ecosystems Management Program (CMEMP), as long as it is publicly accessible. These and other options will be explored and funding will depend on the institution that will host the database. Moreover, most of the 1,800+ locally established Philippine MPAs are not reflected in the World Database of Protected Areas (WDPA[2]) or the World Database of Key Biodiversity Areas (WDKBA), and only a few of the 100+ marine KBAs are reflected in the WDKBA database[3]. Thus, the project will provide technical assistance to DENR and relevant LGUs to ensure that the latest data/information available on local and national MPAs and LCAs in the project sites will be reported to the WDPA, and data on MKBAs in the project sites will be reported to the WDKBA.

Output 1.1.3: Baseline information and vulnerability assessments on priority habitats and ETP marine wildlife completed and integrated into MCA management planning: In addition to already existing data and information from previous studies and assessments (Ong et al., 2002[4]; DENR Region XI and Davao Oriental State College of Science and Technology-RIC XI, 2016[5]), baseline information will be gathered in the project sites, using both scientific methods as well as a participatory approach involving local stakeholders in the project sites. This is a prerequisite to identifying the locations and extent of new MCAs and the areas for extension of existing MCAs based on the presence of ETP MW and their priority habitats. To ensure the monitoring and evaluation of the baseline parameters in the subsequent years, local stakeholders will be trained in the methodologies used. One of these methodologies for baselining is the Participatory Coastal Resource Assessments (PCRA) (e.g. Deguit et al., 2004[6]; Walters et al., 1998[7]), which will gather local knowledge on the coastal and marine resources and on threats as perceived by local stakeholders in the project sites. Results of the PCRA will be validated through site assessments by experts and used for the vulnerability assessments. These vulnerability assessments of threats e.g. from climate change and fisheries, to priority habitats and ETP MW in the project sites will be conducted with local stakeholders trained by the project to generate the basis for an adaptation strategy. The results of the assessments will be captured and recorded in technical reports, which will be accompanied by geo-referenced maps showing hotspots (sites with high ET MW species diversity and high levels of

threats). This will help address the threats in a targeted manner and contribute to closing existing data gaps. Both the baseline and vulnerability assessment will focus on ETP MW, particularly dugongs, marine turtles, cetaceans, and sharks, and their priority habitats.

Output 1.1.4: National oversight & coordinating mechanisms for improved marine wildlife conservation enhanced: Among the barriers identified are the lack of institutional and policy support and oversight, as well as the unavailability of financial resources and competent personnel at the national, regional, and local levels who have the experience, required knowledge, resources and capacity to effectively manage marine wildlife conservation. **Building on on-going convergence efforts of organizational mandates between DENR-BMB and DA-BFAR, necessary adjustments to the current organizational functions and capacities of both agencies** will be revisited and proposed for effective marine wildlife conservation. **The proposed project also will strengthen coordination at the national scale with several on-going projects (see baseline) to have stronger contribution to marine wildlife management in existing MCAs and MPANs relevant to marine wildlife.** Moreover, institutional arrangements developed by previous projects such as in the Marine Protected Area Network (MPAN) Planning Joint Memorandum Circular (JMC) by SMARTSeas and Marine Turtle Protected Area Network (MTPAN) will be used as a reference for the design of coordinating mechanisms for the MWPAN, with law enforcement agencies actively participating and engaged. The institutional arrangements for MPAN Planning under the DA-DENR-Department of the Interior and Local Government (DILG) JMC, facilitated by SMARTSeas, provided guidelines on the establishment, management, and funding of MPANs. The JMC proposes that the MPAN Coordinating Board (CB) includes local LGUs, the three National Government Agencies (NGAs) listed above (through their respective regional offices or bureaus), MPA managers from relevant MPAs, non-government organizations (NGOs) with experience working on MPANs, and academia. The JMC also stated that 40% of the members of the CB shall be women. **The project will strengthen the coordination between DENR and other government institutions and/or national stakeholders to improve MCA management and the conservation of marine wildlife on a nationwide scale (see Output 3.2.3), e.g. by ensuring that clear mandates are given and can be fulfilled, by minimizing conflicting agendas, and by streamlining coordination mechanisms between relevant agencies.**

Outcome 1.2: Improved capacities for marine wildlife conservation among DENR and DA-BFAR **national and regional offices**, and LGUs in the priority sites

*Output 1.2.1: **Training needs assessed and trainings conducted to improve personnel and institutional competency standards, and capacities increased for the establishment and management of MCAs for ETP marine wildlife at national, regional, and local levels:*** To ensure that relevant agencies are staffed with qualified and competent personnel, appropriate competency standards need to be developed and implemented **for relevant government agencies, particularly the DENR-BMB and DA-BFAR. Building on existing initiatives will be explored, such as the UNDP BIOFIN Project that is currently working on incorporating biodiversity in the Seal of Good Local Governance (SGLG) for local LGUs.** Consultations with DENR-BMB and DA-BFAR, supported by conservation organizations, will determine the skillsets, formal educational background, scope and level of experience required to design, oversee, implement, monitor, and evaluate marine wildlife conservation programs. Examples for staff competencies would be experience in leadership, project development, biophysical and socioeconomic monitoring and assessments, and basic wildlife conservation and management concepts and values. Based on the identified and adopted competency standards, a gap analysis will be conducted for the relevant agencies, identifying which qualifications are lacking. These outcomes will result in training modules developed and trainings conducted, terms of reference formulated, and qualified staff hired by the respective agencies with Technical Assistance from the project. At the same time, institutional competencies like strategic communication, employee training and promotion, ethical leadership, due diligence etc. will equally be assessed and

developed. The PPG phase will be used to draft a roll-out strategy. In addition, the project, through BMB and BFAR, will support capacity building for the establishment and management of MCAs for ETP marine wildlife at national, regional, and local levels, including local capacity building for enforcement of wildlife and fishery laws to reduce if not eliminate poaching and illegal trade of ETP MW species. This also includes strengthening of local marine wildlife stranding networks in the project sites comprised of multi-sectorial volunteers to ensure a timely response to and coherent reporting of strandings, rescues and mortalities. To sustain project initiatives for capacity development, the project will build on existing tools, such as online training platforms/integration into existing online modules, trainings already developed by other projects, and the integration of contents into existing modules/curricula of partner universities and/or training institutions, all of which will enable project partners to sustain and propagate training, capacity building, and project learning beyond the project timeline. As an example, the project will build on the Protected Area (PA) Academy[8] and contribute to the development of specific modules, particularly in relation to the ETP MW MCA/MWPAN designation.

Output 1.2.2: Capacities of at least 100 staff of DENR Offices and provincial / municipal / city LGUs at the project target sites to implement the Marine Turtle Conservation Action Plan (MTCAP) and Dugong Conservation Action Plan (DCAP) strengthened: DENR-BMB formulated two 10-year Conservation Action Plans with a planned implementation period from 2020 to 2030. The MTCAP and DCAP offer national level frameworks that can be rolled out to local levels of governance and provide implementation guidance on how to achieve international commitments, responding to the precarious state of these species in the Philippines. Examples of the overarching Objectives for both plans are the reduction of direct and indirect causes of marine turtle and dugong mortalities; protection, conservation, and rehabilitation of marine turtle and dugong habitats; strengthening the implementation of municipal, provincial and national conservation and management policies; increase capacity building and intensify resource mobilization; and increase public awareness on the ecosystem functions of marine turtles and dugongs, on threats to marine turtles, dugongs and their habitats, and enhance public participation in conservation activities. Trainings on the preparation and implementation of localized plans for the MTCAP and DCAP will be conducted for concerned national and regional DENR Offices, as well as for provincial/municipal/city LGUs in the project sites. Relevant Actions and Activities in the MTCAP and DCAP will be mainstreamed into relevant local plans, including CRM and MPA Plans, amongst others. This will be accompanied by the promotion and adoption of innovative and efficient technologies and methods for conservation, such as cybertrackers and species identification apps that enable reporting and citizen science by local stakeholders, or more elaborate tools, such as Remote Underwater Video systems. While the GEF funding will support capacity building for implementation, DENR-BMB, Regional Office, PENRO, and CENRO will provide resources for implementation in the project sites as part of their co-financing.

Component 2: Conservation of ETP MW and priority habitats within targeted MCAs

Outcome 2.1: Increased geographic coverage and improved management effectiveness of MCAs and the MWPAN that support conservation of ETP marine wildlife[9]at three project sites

-

Output 2.1.1: One new MKBA designated in Project Site 1 (Mayo Bay), and existing MKBA expanded to cover adjacent municipalities in Project Site 3 (Malita/Santa Maria/Don Marcelino): To enable the expansion and improved management of MCAs at the project sites, the project will first support the designation of MKBAs, as this is a precondition for gazetting new LCAs in the Philippines. The entire area of Mayo Bay (20,437ha), including portions of the municipal waters of Mati and Tarragona, will be designated as a new MKBA. The existing MKBA in Malita (44,205ha) will be expanded to include the adjacent municipal waters of Santa Maria (42,662ha) and Don Marcelino (59,315ha). The designation and expansion of the MKBAs will be based on scientific methods used for the MKBA assessment, which include standard criteria, such as vulnerability and irreplaceability (i.e. congregatory species and site endemics). This assessment will be led by DENR-BMB and DA-BFAR, with support from ETP MW specialists, participated in by local academic institutions and key stakeholders trained by the project. The purpose of MKBA designation is for them to serve as a prerequisite and basis for the establishment of LCAs (see Output 2.1.2) and is used to determine the presence of ETP MW as this is a criterion for their designation.[10] All KBAs designated under the project will follow the global standard for KBAs, and the project will endeavour to register all KBAs in the project sites in the World Database of KBAs (WDKBA). In order to do this, the project will assess the uploading procedure and collaborate closely with DENR to assist the agency in these processes.

Output 2.1.2: Establishment of one new LCA each in Mayo Bay and Malita / Santa Maria / Don Marcelino, and development of LCA-wide management plans: Two LCAs will be officially established through joint local ordinances or Memoranda of Agreement, encompassing the areas designated as MKBAs under Output 2.1.1. The first LCA will cover the entire Mayo Bay under a bay-wide management regime (Project Site 1), while the second LCA will be established in the expanded MKBA covering the municipalities of Malita, Santa Maria, and Don Marcelino (Project Site 3). For each LCA, a joint management agreement between/among the municipalities with political jurisdiction over the LCA will be drafted, a management council created, and a management plan developed. In addition, a zoning scheme will be developed as part of the LCA establishment, comprising core zones and multiple use zones for e.g. specific fishing gear, navigational lanes, tourism activities.

Output 2.1.3: MPAs established and/or under improved management at all three project sites: Within the LCA in Project Site 1, one new MPA will be established by conducting bio-physical, socio-economic, and other assessments, and confirming the presence of ETP marine wildlife species. MPAs in the Philippines are governed by stricter conservation regulations and zoning schemes than LCAs, and zoning schemes will be established within the LCAs wherein smaller MPAs can be designated as Strict Protection or No Take Zones. In this way, MPAs within the LCAs can provide increased protection for ETP MW and their priority habitats, such as dugong foraging grounds and turtle nesting beaches, as well as the spawning/nursery grounds of fish and invertebrates that are important prey for ETP MW species in the project sites. Establishing an MPA within an LCA will enable barangay stakeholders to directly manage their respective MPAs and to mobilize resources, including the formulation and implementation of MPA management plans and the creation of MPA management committees that provide oversight, MPA management, policy-making, enforcement, monitoring, awareness raising, resource mobilization, etc. MPAs in Site 1 (locally managed MPAs within a LCA, possibly including a newly established local MPA in Mati and several MPAs in Tarragona); Site 2 (the existing PBPLS, which is a National Integrated Protected Areas System - NIPAS site, as well as locally managed MPAs within the PBPLS), and Site 3 (locally managed MPAs within a LCA, including a MPA/dugong sanctuary in Malita; one MPA in Santa Maria, three existing MPAs in Don Marcelino, among others) will be provided with capacity building measures including the creation / updating of management plans, capacity building of LGU staff and stakeholders in collaboration with national agencies, and provision of appropriate equipment (by LGUs and national agencies). Management capacities of all MPAs in the three project sites will be assessed using the METT and MEAT, and based on the results of these assessments,

adaptive management strategies will be identified for implementation by MPA management committees. The areal extent (hectares) will be determined during the PPG phase when surveys of ETP marine wildlife and priority habitats will be conducted in each site.

Output 2.1.4: An MWPAN is established and effectively managed, comprising all LCAs and MPAs in all project sites: One MWPAN will be established through an MWPAN Memorandum of Agreement (MOA), which will comprise all LCAs and MPAs in the project sites. In order to coordinate, implement and execute stipulations in the MWPAN MOA, an MWPAN Council comprising the following members: five City/Municipal Mayors, two Provincial Governors, DENR Regional Executive Director, BFAR Regional Executive Director, DOT Regional Executive Director, and Regional Director of the Philippine National Police-Maritime Group will be created and operationalized. Areas of cooperation within the network may include joint enforcement, monitoring, research, fund raising, sharing of lessons learned, etc. The project will facilitate a participatory network-wide marine spatial planning to establish zoning mechanisms that will be designed to address threats to ETP MW and priority habitats. Regulations, enforcement strategies, and operational plans for the MCAs will be shared or jointly developed by the target municipalities for the MWPAN. Inputs will be provided from representatives from the MWPAN Council and other local stakeholders, including academic institutions and law enforcement agencies. The project will draw on previous experiences in MPAN establishment in the Philippines, such as the establishment of the MTPAN and networks established under the SMARTSeas Project, but the MWPAN will target mainly MCAs with ETP MW and their priority habitats. Even though the proposed MWPAN is at a relatively small scale, it covers globally significant ETP MW populations and habitats and will thus be essential for the survival of these populations throughout their range. Furthermore, because there are no existing MWPANs in the Philippines organized around the conservation of multiple ETP MW species, lessons learned and best practices from the MWPAN for ETP MW to be established under this project will provide an important model for the establishment of future MWPANs in the country and the region.

Outcome 2.2: Sustainable MCA and MWPAN financing and livelihood options identified and implemented

Output 2.2.1: Agreements in place among Local Government Units (LGUs) on collaborative management of the MCAs and the MWPAN: Three Memorandums of Agreement (MOAs) to manage jurisdictional and geographical overlaps will be signed: Two for the establishment of joint Local Conservation Areas (LCAs) and one for the establishment of an MWPAN. The joint LCA MOAs will be between the municipalities of Mati and Tarragona (Project Site 1: Mayo Bay); and among the municipalities of Malita, Santa Maria, and Don Marcelino (Project Site 3: Malita). The MWPAN MOA will be the first of its kind, as it targets mainly MCAs with ETP MW and their priority habitats. The geographical scope of the MWPAN will include all project sites in the two Provinces of Davao Oriental and Davao Occidental. The areas of cooperation may include, amongst others, enforcement, capacity building, promoting best practices in ETP MW conservation and habitat protection and management, research and monitoring, Communication, Education and Public Awareness (CEPA) Programs, and resource mobilization and fund-raising for the operationalization of the MWPAN. To sustain operations of the MWPAN and the MCAs, a suite of potential financing mechanisms will be identified and tapped (see Output 2.2.3).

- *Output 2.2.2: MWPAN Business Plan developed and under implementation:* The project will provide capacity-building for the members of the MWPAN Council and their staff to develop and adopt a MWPAN business plan to ensure the efficient achievement of management objectives, which will include an analysis of funding requirements and sources to

ensure the sustainability of resources, e.g. to introduce innovative management approaches. This will be accompanied by the setting-up of institutional arrangements for the implementation of the Business Plan. Moreover, the business plan will provide a roadmap for broader stakeholder participation and investments and fuel interest to support the sustainability of MCAs. Via the MW PAN, these funds can also benefit specific LCAs and MPAs within the network, depending on the amount, purpose, and source of the fund.

Output 2.2.3: Conservation financing schemes and prioritized development of sustainable eco-tourism under implementation in each of the three project sites to support MCA financing: The project will assess, develop and implement diverse sources of sustainable MCA financing options, where private sector and LGU participation in conservation financing schemes can form part of livelihood development, research, **eco-tourism plan development, etc.** These options may include user fees, proceeds from penalties and fines, permits, licenses, Public-Private Partnerships/Corporate Social Responsibility, annual government budget allocations etc. In addition, studies on ecosystem services, such as Total Economic Valuation, will be conducted, **and the project will explore the potential for Payments for Ecological Services (PES) schemes,** the result of which may provide an impetus for LGU decision makers, NGAs, and private sector representatives to invest into securing ecosystem services. **The project also will work to convince local decision makers to prioritize the development of sustainable eco-tourism and to highlight ETP MW as a tourism product in its natural environment. To achieve this, the project will provide technical assistance to the LGUs in the formulation of their respective Eco-tourism Development Plans. The project will also support increased private sector, LGU and NGA participation in conservation financing schemes, including the establishment of Biodiversity-Friendly Enterprises (BDFEs) in the project sites. BDFE is a banner program of BMB and can be tapped to provide significant co-financing resources.**

Outcome 2.3: Effective enforcement of policies and regulations sustained

Output 2.3.1: At least 30 community members trained and actively participating in community-based enforcement teams to support MCA management and wildlife conservation: To ensure effective community-based enforcement of environmental and wildlife law, fisheries law, MPA regulations, and tourism guidelines in their respective municipalities, including municipal waters, a cadre of community-based enforcement personnel will be organized, trained, and operationalized in the project sites. Community members will be deputized by both BFAR as *Bantay Dagat* (Guardians of the Sea), and by DENR as Wildlife Enforcement Officers (WEO), as stipulated under RA 9147. Personnel of PNP, PCG, Air Force can also be deputized as WEOs by DENR. To reduce the average response time of enforcement units to incidents involving violations of RAs 9147 (Wildlife Act), 8550/10654 (Fisheries Code), 386 (Civil Code) etc., a response protocol to counteract violations will be adopted, including the set-up of an efficient and functioning response chain involving a composite team of *Bantay Dagat*, WEOs, and other law enforcement agencies operating in the project sites, e.g. conducting frequent visibility patrols to deter potential violators. At the LCA level, two *Bantay Dagat* networks will be created, one each in Project Sites 1 and 3. Collaborative arrangements, such as gathering and sharing of information, best practices, intelligence, and joint enforcement planning can also form part of an MWPA enforcement network. Legal support in filing and prosecution of cases will be provided, and local regulations to halt illegal, destructive, and unsustainable fishing practices and against poaching of ETP MW will be formulated and enforced. The project will support the identification of destructive fishing gear and those that are detrimental to ETP MW and recommend appropriate gear modifications and changes in current practices that cause disturbance to or mortalities of ETP MW or destruction of priority habitats. Based on the recommendations, regulations prescribing modifications of fishing gear and current practices that are detrimental to marine wildlife and priority habitats will be issued and implemented. Amongst others, strict guidelines and ordinances for residential, private sector,

and resort development in important coastal habitats will be supported, such as local CRM plans and reduction of light pollution to avoid disturbance of ETP MW such as nesting turtles and emerging hatchlings. For the financing of these activities, please also refer to [Outputs 2.2.2 and 2.2.3](#).

Output 2.3.2: Support to the implementation of Wildlife Interaction Guidelines: DENR, DA, DOT, and DILG will develop and issue a Joint Memorandum Circular (JMC) on Wildlife Interaction Guidelines that provides guidance for eco-tourism operators on how to interact with marine wildlife in their natural habitats to minimize stress, injuries, and mortalities of the animals and to avoid accidents with tourists. Local ordinances and MCA management plans incorporating and enforcing the rules and regulations stipulated in the JMC will be formulated and passed in all project sites. In order to monitor and enforce the Wildlife Interaction Guidelines, personnel of MCAs as well as the composite enforcement units mentioned (see Output 2.3.1) will be trained and deployed.

Outcome 2.4: Local livelihoods sustained at MPA sites through biodiversity-friendly enterprises

Output 2.4.1: Increased opportunities for stakeholders living within or adjacent to the project sites to engage in sustainable livelihood activities resulting from conservation initiatives: The project will begin by conducting a Livelihood Feasibility Study in all project sites, which will meet Social and Environmental Standard requirements. By capturing all aspects of the socio-economic, political and natural environment and identifying gaps in Human, Natural, Financial, Physical, and Social Assets, Vulnerability Context, Structures and Processes that may impede the successful introduction of sustainable livelihood options, such as conventional gender stereotypes and roles, the study will form the basis for a diversification of income through the identification of viable alternative livelihoods, technical assistance, [e.g. on eco-tourism plan development](#), and training. In the context of sustainable livelihoods, the number of community members with gainful employment from conservation initiatives, such as biodiversity-friendly enterprises (BDFEs), e.g. textiles and mat weaving, food catering, seaweed farming, sale of souvenir items/up-cycling, homestays etc. will be increased in the project sites. [These livelihood interventions will primarily target fisherfolk who are engaged in illegal, destructive, and unsustainable fishing practices and may be temporarily affected adversely by enforcement and management actions of the project.](#) In the short-term, the project will provide alternative sustainable livelihood interventions for these fishers (e.g. in fish processing, production of souvenirs for tourists, tourist guiding, food stalls for local delicacies and “*pasalubong*”, etc.); in addition, short to medium-term financing options such as Cash-for-Work will be explored (these have proven successful in the Philippines in the past). This will lead to enhanced protection for globally significant ETP MW and their habitats by weaning people away from destructive, unsustainable, and/or illegal practices and will provide local communities with alternatives to existing livelihoods that depend on or cause harm to turtles, dugongs, cetaceans, and their habitats. [As an example, employment in eco-tourism will provide alternatives to illegal fishing/ hunting or poaching of turtle eggs, while also providing local stakeholders with strong incentives to protect the biodiversity on which eco-tourism depends.](#) Consultations with men and women will be conducted on their preferences for skillsets to be developed during capacity building activities. The development of sustainable livelihoods will incorporate gender concerns into the planning and design, to open up avenues for expanded roles and responsibilities for women, e.g., entrepreneurship training, law enforcement, financial literacy, catering and souvenirs for tourism, and ensure the equitable access to information, resources, services and institutions. Identified livelihood improvement activities will be prioritized to target people that suffer from economic displacement due to MCA establishment and/or expansion and/or improved enforcement. Interlinkages with [Output 2.2.3](#) will be observed and inform e.g. capacity building on entrepreneurship, product development/innovation, and project management.

Component 3: Achieving impacts through changed behaviour and knowledge management

Outcome 3.1: Desired behavioural change on biodiversity conservation among key stakeholders achieved

Output 3.1.1: Communication, Education and Public Awareness (CEPA) Program formulated and effectively implemented in the project sites: The project will develop a CEPA program in order to raise awareness on the importance of ETP marine wildlife, MCAs, biodiversity conservation, Ridge-to-Reef interlinkages, etc., and in doing so, achieve behavioural change among key resource users and other stakeholders. A marine resource use study will be conducted in the beginning of the project to establish baseline information on awareness and behaviours; this will be done through PCRA, including communal threat mapping, focus group discussions with local stakeholder groups, key informant interviews with local decision-makers, etc. **This will exemplify to the stakeholders what they stand to lose if they do not change their behaviour.** The results of the study will be presented during stakeholder consultations in all project sites, and will serve as inputs for stakeholders to develop their own site-specific CEPA **and behaviour change** programs. The consultations will be complemented by stocktaking of previously developed CEPA material by other projects **and programs (e.g. CBD's CEPA toolkit)** and will build on that accordingly. Awareness will be raised among stakeholders at the municipal, provincial, and regional level in the project sites, on the importance of conserving marine biodiversity, in particular ETP MW, MCAs, and ecosystem functions, and their role in improving human well-being and providing economic opportunities. The CEPA program will also raise awareness on the impacts of upland activities on coastal and marine areas. **The CEPA strategy will encourage local community members at various levels of interest and influence, to be actively engaged in project activities, to effect change and be agents of change. Some examples of behavioural change targeted to become actively involved and engaged in project meetings, in fisherfolk or boat registration, in patrolling activities, in participatory resource and/or threat assessments, etc. Some stakeholders will be identified as local champions, achieving a change of mind and behaviour in other fellow community members.** The percentage of community members who adopt more environmentally-friendly practices and develop ecological mindsets will be measured, in part through measuring compliance with environmental regulations, such as national and local marine wildlife, fishery, and tourism regulations. A post-CEPA campaign study will be conducted to assess changes in awareness and behavioural change with regard to coastal and marine resource use practices and patterns. **In addition, behavioural change will be affected through training and capacity development activities, such as deputizations of WEOs, which leads to strengthened community enforcement through of the development of marine resources ownership and active engagement in their protection.**

Outcome 3.2: Improved knowledge management and scaling-up of good practices for the conservation of ETP marine wildlife

*Output 3.2.1: A **national** knowledge management platform established and functional:* A **national** online Knowledge Management System (KMS) will be established to collect and share best practices, lessons learned, and innovative solutions to common problems of conserving ETP marine wildlife and their habitats. The KMS will have up to date information and knowledge products, as well as a document management platform that will be accessible to project partners and stakeholders. Data and lessons learned from project activities under Component 2 for the conservation of ETP MW and priority habitats as well as other relevant information solicited from project partners and local stakeholders will be

uploaded into the KMS. The scope of the KMS will be deliberated on and an initial design process will take place during the PPG phase. During the PPG phase, the project partners will explore options for building on or integrating with existing knowledge platforms in order to support sustainability, including the M&E data platform for the Philippine Biodiversity Strategic Action Plan (PBSAP), which is currently being developed by BMB with support from the UNDP-Biodiversity Financing Initiative (BIOFIN).

Output 3.2.2: Knowledge products using different channels and periodic knowledge events for various target audiences developed and disseminated: Demand-driven knowledge products informed by data and lessons learned from project activities under Component 2 on ETP MW and priority habitats will be produced and disseminated, supporting the sharing of information, knowledge, and lessons learned for identified target audiences. The project will aim to enhance stakeholder participation in conferences organized at the regional and/or national level for sharing of information, research results, innovations etc. on dugongs, marine turtles, and other ETP MW, such as the Philippine Biodiversity Symposium[11], MPA award ceremonies (Para el Mar)[12], the national PA Summit and the regional PAMB Summits organized by BMB, and activities related to annual themes, like the Year of the Protected Areas 2020. The results of the project will feed into the periodic reporting of the Philippines to the UNEP-CMS, e.g. for dugongs, marine turtles, and sharks under the Dugong Memorandum of Understanding (MOU), Indian Ocean-South East Asian (IOSEA) Marine Turtle MOU, and Shark MOU. Relevant information generated by the project will also be reported to other international conventions and agreements such as CITES, CBD, CTI, etc.

Output 3.2.3: Lessons learned are scaled up and can be replicated throughout the Philippines. The project will support scaling up of key lessons learned and models for management of MPAs and ETP MW in other areas of the Philippines. As explained elsewhere, several key strategies of the project will be innovative for the Philippines, including the implementation of priority activities to implement the national 10-year roadmaps for dugong and marine turtle conservation and project interventions to establish/strengthen MCAs with a specific focus on protecting ETP MW species. The results, knowledge, data and experiences generated through these activities will establish a replication/scaling-up demonstration model for similar efforts, including enabling the establishment of additional MCAs focused on ETP MW in other parts of the country and better collaboration between involved national agencies (see Output 1.1.4). To facilitate this, the project will support DENR in developing and implementing a training program, including information materials and training modules, which can be provided to other MCAs in the Philippines, as well as providing guidance to community-based enforcement units on working together with national enforcement agencies on the protection of ETP MW. All of the foregoing strategies for scaling up project results will be facilitated by the Knowledge Management System developed and operationalized by the project.

-
Outcome 3.3: Project implementation is supported by an M&E strategy based on measurable and verifiable outcomes and adaptive management principles

-
Output 3.3.1: Participatory M&E and learning framework developed and implemented: A project M&E strategy will be developed in partnership with relevant stakeholders, which clearly defines the expected results, the expected time frames for their achievement, and their confirmation through objective indicators and means of verification.

Outcome 3.4: Gender fully mainstreamed in project interventions as indicated by gender-based indicators

Output 3.4.1 Gender Assessment and Action Plan developed and implemented: Gender will be mainstreamed throughout this project’s design and implementation. At PPG, the project plans to (i) conduct a Gender Analysis, and (ii) develop a Gender Action Plan that will help identify needs and opportunities to reduce potentially adverse effects of the project on men and women, as well as promote and mainstream gender equality within the project using gender-sensitive and sex-disaggregated indicators. During project preparation, consultations with community groups and NGOs involved in coastal and marine ecosystem conservation and protection will take place in ways that will ensure women’s meaningful participation. The project design will be aligned with the GEF policy on “Environmental and Social Safeguard Standards and Gender Mainstreaming”; and with UNDP’s procurement procedures that explicitly recognize the promotion of gender equality as a standard business practice. The implementation team will work with the GAD (Gender and Development) focal point system (FPS) and GAD Office of the DENR.

The connections between the Outputs, Outcomes, Drivers and Assumptions to arrive at an intermediate state and, subsequently, achieve the expected impact of the project are indicated in a simplified Project Theory of Change in Figure 1 below.

[1] UNDP. Nov 2018. Philippines Coastal Resilience (PCR) Project Proposal.

[2] <https://www.protectedplanet.net/>

[3] <http://www.keybiodiversityareas.org/home>

[4] Perry S. Ong, Leticia E. Afuang, and Ruth Grace Rosell Ambal, ‘Final Report: Philippine Biodiversity Conservation Priorities’ (Department of Environment and Natural Resources, Conservation International, University of the Philippines Center for Integrative and Development Studies, and Foundation for the Philippine Environment, Quezon City, January 2002), https://www.researchgate.net/publication/303524907_Philippine_biodiversity_conservation_priorities_A_second_iteration_of_the_National_Biodiversity_Strategy_and_Action_Plan.

[5] DENR Region XI and Davao Oriental State College of Science and Technology-RIC XI, ‘DUGONGS AND MARINE TURTLES COMPREHENSIVE BIOLOGICAL RESEARCH IN MAYO BAY AND PUJADA BAY PROTECTED LANDSCAPE/SEASCAPE’ (DENR Provincial Environment and Natural Resources Office-Davao Oriental, 2016).

[6] Evelyn T. Deguit et al., ‘Participatory Coastal Resource Assessment Training Guide’ (PIF: Alternative scenario, Output 1.2.1, p. 15, 2004).

[7] Jeffrey S. Walters et al., ‘Participatory Coastal Resource Assessment: A Handbook for Community Workers and Coastal Resource Managers’, January 1998, https://www.researchgate.net/publication/237401608_Participatory_coastal_resource_assessment_A_handbook_for_community_workers_and_coastal_resource_managers.

[8] The PA Academy, set up by the Protect Wildlife Project (USAID) and BMB, is an online platform intended for PA staff.

[9] See Annex D for details on the various marine protected sites targeted by the project.

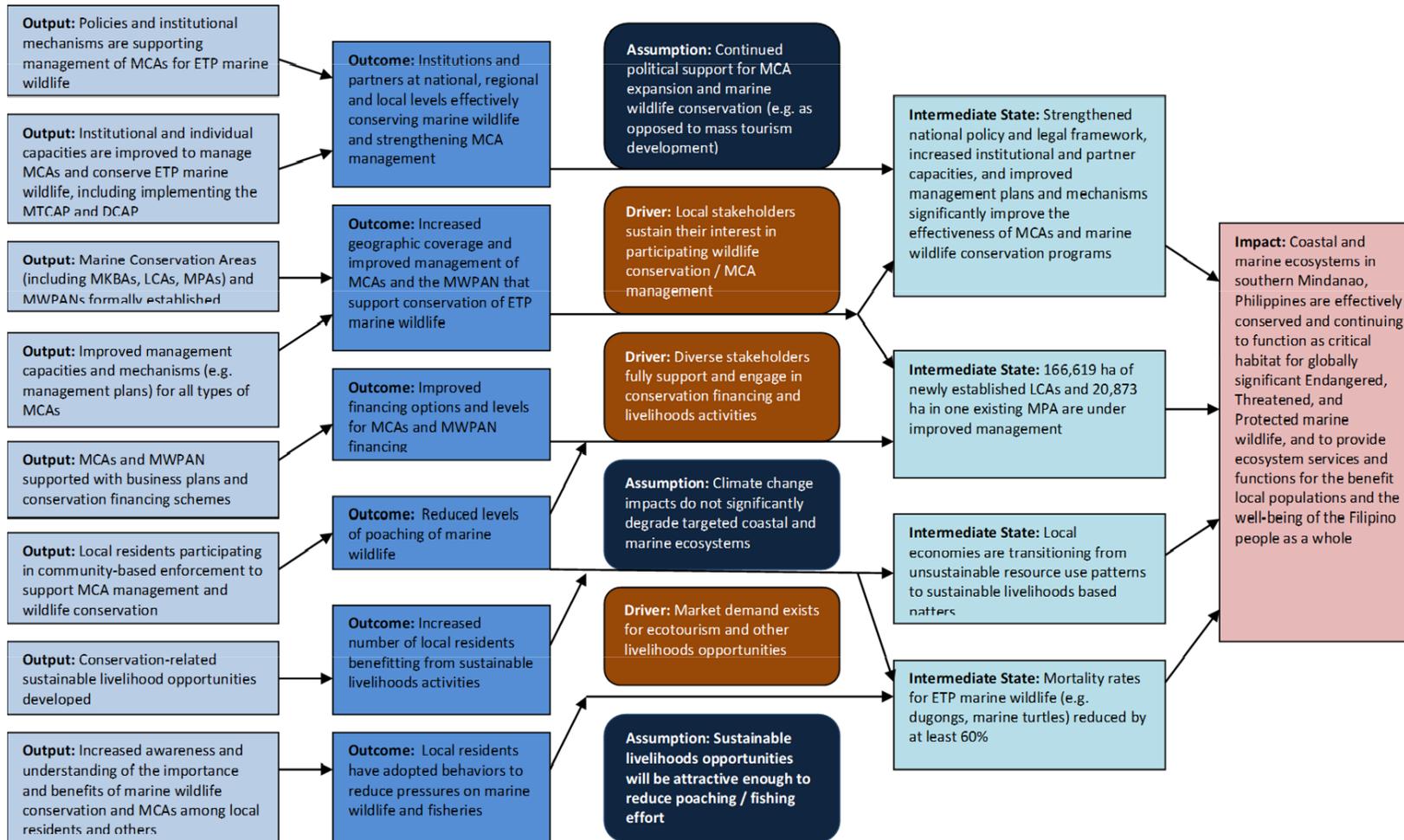
[10] The proposed expanded/designated MKBAs will meet the criteria used to designate KBAs, based on either vulnerability or irreplaceability, or both. Vulnerability is triggered by the confirmed presence of one or more globally threatened species, classified as Critically Endangered (CR), Endangered (EN), or Vulnerable (VU) based on the IUCN Red List of

Threatened Species. The ETP species targeted by the project, i.e. dugongs and turtles, are classified as threatened under IUCN, and many cetaceans and sharks are equally classified. Also, with the Philippine context, the reported population size of dugongs can be considered under the irreplaceability criterion, as well as the three marine turtle species nesting in Mayo Bay.

[11] The Annual Philippine Biodiversity Symposium is organized by the Biodiversity Conservation Society of the Philippines (BCSP); <http://www.biodiversity.ph/about/>

[12] The Para el Mar MPA Awards and Recognition is a biennial event that aims to showcase the country's best performing MPAs and provide a venue for Philippine MPA champions to share experiences and learn from each other.

Figure 1. Project Theory of Change



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

The proposed project is aligned with the GEF Biodiversity Focal Area, specifically with focal area BD-2-7 (Address direct drivers to protect habitats and species and improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate). The project will address direct drivers to protect habitats and species through actions to protect ETP MW, including combatting illegal and unsustainable uses of species through increased enforcement, institutional and stakeholder capacity building, and awareness raising on the role of ETP MW and ecosystems for human well-being. The project also will strengthen enforcement at the local level to reduce illegal, destructive, and unsustainable fisheries practices, which, together with a valuation of ecosystem functions and awareness raising, will reduce pressures on coral reefs and other vulnerable coastal and marine ecosystems. The METT/MEAT will be employed for MPAs to measure progress in management and conservation practices, thus making sure that the effectiveness of protected area systems is enhanced. Effective management and ecosystem coverage through protected areas will be enhanced by expanding the total area of various forms of MCAs in three priority sites, establishing a MWPAN, and improving the management practices and effectiveness of the target MCAs. **MKBA global standards and criteria will be used for the expansion, as they form the basis for the establishment of LCAs, which will then provide a stricter form of governance.**

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

Baseline situation and business as usual scenario

Although the baseline analysis identified numerous programs and projects relating to the conservation of marine wildlife and their habitats in the Philippines, there are obvious gaps in management, enforcement, scientific knowledge, socio-economic interventions, and geographic scope that are contributing to the continuing decline of marine wildlife populations in the country. A failure to expand the area and strengthen the management of MCAs that can effectively protect ETP MW species and their habitats will leave these species vulnerable to a number of existing threats such as poaching, accidental capture, habitat degradation, and illegal trade, a situation that could drive critically endangered species, such as dugongs, to local extinction. Weak institutional and policy frameworks for conservation of ETP MW and management of MCAs, as well as a lack of competent personnel at national and local levels with the experience, required knowledge, and resources to effectively manage marine wildlife conservation programs will continue to greatly limit the effectiveness of such programs. As one example, limited training and resources for field personnel leave them unable to respond in an effective and timely manner to critical situations such as animal stranding and net entanglement, or to effectively counter the poaching and illegal trade of ETP MW species. The continuing lack of collaboration among LGUs will greatly constrain efforts to protect ETP MW, as these species are migratory and use various habitats in different areas throughout their life cycle that require collaborative planning, management, monitoring, and enforcement across administrative boundaries. Of all marine wildlife that occurs in the Philippines, dugongs may be the most at risk of local extinction, and many threats and challenges to the dugongs' continued survival are still not being effectively addressed. The high mortality rate, combined with the

dugong's slow reproductive rate, poses a significant threat to the few remaining populations in the country, and a local extinction scenario is indeed probable over the next couple of decades if mandated government agencies, LGUs, and other stakeholders take a business as usual stance. Similarly, the on-going poaching of marine turtles and their eggs, coupled with their late sexual maturity and low survival rate from hatchling to adult, means that the future survival of local populations is in peril. **The recently completed Dugong Conservation Action Plan (DCAP) and Marine Turtle Conservation Action Plan (MTCAP) are important baseline achievements, as each plan includes up to date and comprehensive data on the species, constitutes a roadmap for conservation of these globally significant species present in the Philippines for at least the next 10 years, and offers a national level framework that can be rolled out to local levels of governance and can guide implementation on how to achieve those commitments.** In addition, none of the identified baseline projects and programs addresses the need for diverse sources of sustainable MCA and MPAN financing options, including sustainable livelihood activities for local stakeholders. The conservation of long-lived ETP MW species requires long-term interventions, which in turn require sustainable financing to avoid negating the successes and accomplishments achieved.

The Mayo Bay project site, which includes a nesting site for three species of marine turtles at Dahican Beach as well as adjacent nearshore marine waters that are important dugong habitat, is currently experiencing a surge in tourism arrivals, in part because it is becoming a favourite destination for surfers. The LGU and local property owners are now speculating on the potential of the area for mass tourism, and some landowners are already encroaching into the nesting beach regardless of legal provisions on set-back lines. More broadly, in the absence of strict guidelines for infrastructure development and regulations of tourist activities, the critical habitats of dugongs, marine turtles, and other ETP MW will be disturbed and degraded in all of the project sites. The unchecked growth of tourism will result in coastal infrastructure development and increased tourist interactions with marine wildlife (which have become major tourism products in other parts of the country), and under the business as usual scenario, policymakers and investors will continue down a path that leads to the destruction of critical habitats and the degradation of critical ecosystem services.

Alternative scenario enabled by the GEF

In the alternative scenario, the GEF investment will address the threats and barriers that are causing the continuing population declines of ETP MW. At the end of the project, priority sites that are known habitats of ETP MW will have been legally established and effectively managed as MCAs, providing on-site protection to ETP MW while at the same time securing ecosystem services such as food security, tourism, and protection from climate change impacts. The project will effectively expand the geographic coverage of MCAs for ETP MW, which are currently under-represented in the Philippines. The establishment and sustainable management of the MCAs as well as the protection of ETP MW from identified threats will be supported by new and improved enabling conditions that will ensure that policies, institutions, and capacities are in place and sufficient to effectively address the identified threats and barriers. **In addition, the creation of the DCAP and MTCAP are notable baseline achievements that provide a guide for conservation of dugongs and marine turtles in the Philippines. The proposed project will constitute the first efforts in the country to implement some of the priority actions in the plans, including training of national and regional DENR offices as well as provincial/municipal/city LGUs on the preparation and implementation of localized plans under the MTCAP and DCAP, and the promotion of innovative technologies and methods for conservation of dugongs and marine turtles, such as cybertrackers, species identification apps, and Remote Underwater Video systems.** The project will facilitate the creation and implementation of inter-LGU agreements for collaborative management and financing of the MCAs and the MWPAN. Effective

enforcement of policies and regulations will be achieved as a direct result of capacity building interventions. Community-based enforcement of environmental and wildlife law, fisheries law, MPA regulations, and tourism guidelines in their respective municipalities will be effectively carried out by a cadre of community-based enforcement personnel. GEF funds will be used to invest in interventions designed to achieve behavioural change and strengthen an ecological mindset among local stakeholders, as well as to establish knowledge management systems that will be accessible to diverse stakeholders. Various sustainable financing mechanisms with active participation and contributions from the private sector will be implemented and institutionalized to help sustain critical activities including on-site protection of ETP MW. Finally, the GEF funds will be used to leverage co-financing of at least US\$ 15 million from a diverse network of partners and stakeholders.

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

The project will contribute to the conservation of globally significant biodiversity by conserving priority habitats and ecosystems to secure viable populations of globally significant ETP MW through the use of MCAs as mechanisms to implement conservation activities. The project will create GEBs by supporting the protection of habitats for, and reducing direct pressures on, a number of ETP MW species, including the dugong, three species of marine turtles, Cetaceans, whale sharks, and manta rays. In addition, important coastal and marine ecosystems and their services will be conserved. Coral reef diversity is high in all of the project sites (e.g. at least 25 genera of hard and soft corals are found in Pujada Bay[1]); these reefs are critical habitat for numerous marine species, and a significant percentage of people living in the project sites rely on the health of reef ecosystems to sustain their livelihoods and improve their well-being. 18 species of seagrass have been identified[2] in the Philippines (9 in Pujada Bay[3]); seagrass ecosystems are important nurseries for various marine species, critical food sources for dugongs, marine turtles, and other marine herbivores, and provide carbon sequestration and coastal protection services; their conservation is critical in the face of coastal development and unregulated upland practices that can negatively impact their functioning (i.e. through silt and sediment flows). The health of seagrass beds is directly tied to mega-herbivores like dugongs and marine turtles, which can influence biomass, increase productivity and microbial nutrient cycling, lead to higher leaf growth and ultimately provide the mechanisms for meadow recovery. The project will help to conserve mangrove ecosystems (including approximately 85 ha of mangroves in Pujada Bay[4]) that serve as habitat for juvenile marine species, including fish and crustaceans, and as food and income sources for local communities. Mangrove forests are also carbon sinks and have been found to sequester more carbon compared to any other ecosystem; disturbing them will result to high greenhouse gas emissions.[5] The project will also conserve beaches and coastal forests that act as barriers against winds and waves and help to prevent coastal erosion[6], including in areas that contain nesting sites of marine turtles such as Dahican Beach in Mayo Bay. At the same time, the project will help communities that depend on these ecosystems for ocean-based tourism, fisheries and other natural resource based livelihoods to sustain their ways of life and become more resilient to the damaging impacts of climate change.

The project will also support the goals and targets of a number of International Environmental Agreements, including species conservation objectives of the Convention on International Trade in Endangered Species (CITES) and the Convention on Migratory Species (CMS); the CBD Aichi Targets 5, 6, 10, 11, 12 and 14; and the Sustainable Development Goals (SDGs) 14.2, 14.4, 14.7, 15.5 and 15.7. The project also will assist the Philippines in achieving its commitments in Regional Action Plans and Agreements that support GEBs, including the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) Regional Plan of Action (RPOA), and the Comprehensive Action Plans of the Sulu-Sulawesi Marine Eco-region, in particular the Action Plan for Marine Turtles, Marine Mammals, Sharks, and Climate Change.

7) Innovation, sustainability and potential for scaling up

Innovation: The project will be innovative for the Philippines as the presence of ETP MW and their priority habitats will be used as the basis for identifying, establishing, and improving management of multi-species MPAs, LCAs, and the MWPAN, which addresses the need for larger seascape-level protection for these marine megafauna species. The project will also use indicators for monitoring marine wildlife, such as population trends measured through nestings, sightings, markings, mortalities, etc., that have not been required for protected areas in the country. It is hoped that this push to consider ETP MW in the identification of MCAs and to monitor their condition will create the momentum for better integrating the presence of ETP MW into policy-making decisions. The implementation of priority activities in the DCAP and MTCAP by this project will represent the first efforts in the country to implement these priority national 10-year roadmaps for dugong and marine turtle conservation. The establishment of a publicly accessible online database for the MCAs in the project sites, with data on the location, coordinates, extent, purpose, zoning, METT/MEAT results etc. of all MCA sites in the country, will establish a model that can subsequently be populated by researchers and other partners on a countrywide basis. The establishment of a registry system for MCAs within DENR-EMB will guide the EIA review process and ensure that the presence of ETP MW and their priority habitats will be considered during the conduct of EIAs so that potential impacts can be identified and mitigation activities properly designed. The carrying out of a Livelihoods Feasibility Study (LFS) in each of the three project sites will be based on an internationally renowned framework that has been conducted only once in the Philippines so far (Turtles Islands, Tawi-Tawi), with great success. Finally, during project preparation, options for the use of innovative technologies to support conservation, in particular technologies that can be easily used by local stakeholders and can contribute information on local ETP MW populations via citizen science, will be investigated. These options include the possible use of CyberTracker^[7] open-source software to field staff and planners to access and share critical field information in real time, and Baited Remote Underwater Video (BRUV) and camera systems that provide estimates of fish size, position, and orientation for quantitative analysis.

Sustainability: The sustainability of the project outputs will be achieved as follows:

- Institutionalization: Strengthened inter- and intra- institutional arrangements of DENR, DA-BFAR, DILG and their respective regional offices, especially in areas where their mandates may overlap, and the establishment of oversight and coordinating mechanisms at the national level, will help to ensure that conservation programs for ETP MW remain aligned with national priorities and conservation action plans. The creation of various management bodies at the sub-national and local levels, i.e. MPA Management Committees, LCA Management Councils, and a MWPAN Coordinating Board, will establish political support, human capital and funding resource commitments from LGUs and NGAs needed to sustain the conservation initiatives beyond project lifetime. The merging of top-down and bottom-up institutional approaches in the project will ensure consistent engagement over time, and the incorporation of benefits (e.g., enhanced capacity, improved competency, increased opportunities) for national, sub-national, and local management bodies and stakeholders will lead to more effective conservation and management programs and strategies consistent with the MCA/MWPAN objectives in the longer term.
- Local ownership: The identification, designation, establishment and management of MCAs in the project will be driven by an inclusive and participatory approach that engages local communities and decision-makers. Coastal communities and resource user groups will be capacitated to co-manage the MPAs with their respective local governments and will participate in the monitoring of ETP MW and priority habitats via citizen science and community-based enforcement. It is hoped that this sharing of responsibility for resource

management will improve the country's ability to manage the over-exploitation of its open-access resources. Furthermore, increased ownership for local stakeholders will be complemented by awareness raising about the direct benefits for local stakeholders of increased marine resource productivity and improved incomes through sustainable tourism and the creation of biodiversity-friendly enterprises, with the goal of turning local stakeholders into advocates for biodiversity conservation.

Sustainable financing: The project will strengthen the capacities of LCA/MPA/MWPAN managers and stakeholders in resource mobilization and will assist them in accessing existing financing mechanisms in the Philippines for the support of MCAs. The project will endeavour to increase and diversify sources of financing for the Integrated Protected Area Fund (IPAF), which could be used to provide funding for the PBPLS in project site 2. Funding support for MCAs comes from LGUs and various NGAs, and financing commitments from these bodies will be confirmed through funding allocations in their Annual Work and Financial Plans that support MCA operations, and through allocations designated in the MWPAN Business Plan. Other sustainable financing options available for MCAs could originate from: the establishment of user fee systems, such as conservation fees and ecotourism fees collected from tourists and/or divers; permits and licenses, such as boat registration; fishing industry revenues, such as catch shares, revenue from aquaculture and/or fines for illegal fishing, among others. The training on resource mobilization will also help MCA managers to find financial support beyond government funding, i.e., establishment of sustainable biodiversity-friendly enterprise for partner people's organization; increased support from the private sector for conservation and management activities through their corporate social responsibility programs but with due diligence or vetting to avoid "greenwashing" or reputational risks.

Scaling Up: The MPAs, LCAs and MWPAN established by the project will be the first such areas in the Philippines focused on the conservation of globally significant ETP MW, and the lessons learned and best practices in these areas generated by the project can help to enable the establishment of additional such MPAs and MWPAN in other parts of the country. The project will strengthen the management of existing MPAs and increase their effectiveness in protecting ETP marine wildlife through a variety of measures, including: development / strengthening of management plans for MPAs and MPA networks; creation and capacity building of MPA management committees; development of competency standards for personnel and institutions involved in marine wildlife conservation; capacity building and strengthening of local marine wildlife stranding networks as well as community based enforcement teams; business planning for MPA networks; agreements among LGUs on collaborative management and financing to support MPAs; and improved information and vulnerability assessments on priority habitats and ETP marine wildlife that will be integrated into MCA management planning. These measures to strengthen MPA management will provide models, guidelines, training programs, and lessons learned that can be replicated at other MPA sites in the Philippines, especially the many sites that harbour ETP marine wildlife. By strengthening the institutions, policies, guidelines and capacities for identifying, designating and managing MCAs that prioritize ETP MW, future efforts to establish additional MCAs and to improve the management of existing MCAs to ensure persistence of globally significant ETP MW can be fast-tracked. In addition, the initial components of the MWPAN are expected to become the core of a network that will expand to include additional sites where ETP marine wildlife are present.

Contribution to national, regional and global action plans, initiatives and agreements. The project also will contribute to the implementation of the DCAP and MTCAP, which are country-wide in scope. The implementation of priority activities listed in the DCAP and MTCAP by this project will represent the first efforts in the country to implement these priority national 10-year roadmaps for dugong and marine turtle conservation, and thus the project will establish a model for local implementation of these plans that can be used throughout the country. The results of the project will further contribute to the fulfillment of the Philippine obligations under regional and international agreements, such as the Conservation Management Plans (CMPs) of the UNEP-CMS IOSEA MT MOU, Dugong MOU, CBD etc. Other regional and/or global initiatives and bodies of knowledge where

this project can contribute to are e.g. CTI-RPOA, IUCN Specialist Groups, such as the Sirenian Specialist Group Global and Regional Action Plans, Marine Turtle Specialist Group; UNEP-CMS IOSEA MT MOU, Dugong MOU, Shark MOU etc. Information gathered in the project on poaching and trade can also contribute to populating the national database of DENR-BMB on seizures and inform appropriate actions by TRAFFIC and reporting to CITES. All of the foregoing strategies for scaling up project results will be facilitated by the Knowledge Management System developed and operationalized by the project.

-
- [1] Atoy, et al. 2016. Dugongs and Marine Turtles Comprehensive Biological Research in Mayo Bay and Pujada Bay Protected Landscape and Seascape
[2] Fortes, 2013. A Review: Biodiversity, Distribution and Conservation of Philippine Seagrasses. *Philippine Journal of Science*. 142(3):95-111
[3] Atoy, et al. 2016
[4] Atoy, *et al.* 2016
[5] Alongi, 2014. Carbon sequestration in mangrove forests. *Carbon Management*. 3(3): 313-322. DOI: 10.4155/cmt.12.20
[6] WWF. Beach Forest Restoration. 13 August 2007. <https://wwf.panda.org/?122642>
[7] Cybertracker, 'CyberTracker GPS Field Data Collection System - Home', accessed 6 February 2020, <http://www.cybertracker.org/>.

1b. Project Map and Coordinates

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

See Annex A.

2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

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

Stakeholder consultations were carried out at all of the proposed project sites in January 2020; these consultations include representatives of DENR, DA-BFAR, provincial and municipal governments (LGUs) and offices (e.g. Environment Committees, Planning and Development offices, Environment and Natural Resources offices, Fisheries offices (PFO), tourism and law enforcement representatives, etc. These consultations reviewed relevant threats and barriers and **generated interest and support for proposed targets and project interventions, particularly for the creation of MPAs/MCAs in project sites,** and discussed the existing and potential roles of various stakeholders, for example the need to get business groups to participate and invest in this project; the identification of industries operating in areas near to the project areas that are potential threat sources (e.g. a mining operation in Davao Oriental, a coal powered plant and upland banana farmers in Davao Occidental). In-depth consultations with the potential project partners will continue during the project preparation, including consultations with local Indigenous Peoples (IP) groups that were identified as present in the project sites during the first stakeholder consultations. The involvement of various stakeholders in the project preparation, as described in Table 2 below, will facilitate their engagement as local co-implementers and develop ownership for the project. For example, during the PPG phase, a roundtable discussion will be organized and conducted with potential private sector representatives to explore and identify potential activities, investments or co-financing they can contribute as project partners.

Table 2: Expected Role of Stakeholders in Project Preparation

Stakeholders	Expected Role in Project Preparation
Department of Environment and Natural Resources (DENR) -Biodiversity Management Bureau (BMB)	The DENR, through the BMB, will be the Executing Agency for the project. BMB will be the leading partner in the project design process, especially regarding ETP marine wildlife and MCAs. BMB is responsible for the management of biodiversity in the country, and the Wildlife Resources Division (WRD) and the Coastal and Marine Division (CMD) will be the leading joint partners in project design, preparation, and co-implementation. DENR-BMB will sit as a member of the Project Steering Committee (PSC) and will house the Project Management Unit (PMU) as well as provide administrative, financial, and technical support. It will likewise provide co-financing (cash and in-kind) to the project.
Department of Agriculture (DA) - Bureau of Fisheries and Aquatic Resources (BFAR)	The DA-BFAR will be a crucial partner in the design and co-implementation of activities for the conservation of cetaceans and sharks, as well as halting illegal, destructive, and unsustainable fishing practices. DA-BFAR will be tapped to help in the modification of fishing gear that has been proven detrimental to both ETP MW and their habitats. DA-BFAR will lead project design elements relevant to fisheries policies and stakeholder engagement in resource protection and conservation, including the role of Bantay Dagat groups in enforcement. DA-BFAR will also be requested to provide co-financing for relevant aspects of the project.
Department of Social Welfare and Development (DSWD)	DSWD will lead activities relevant to its cash-for-work program to enable local stakeholders to anticipate and deal with threats and impacts of climate change, which could include conservation or fisheries management activities such as beach and underwater clean-ups, seasonal closures for specific fishing gear; monitoring and enforcement, etc. DSWD will be invited to participate in consultations and workshops during the PPG stage to provide inputs and commit co-financing.
DENR Regional Office – Region XI, PENROS, CENROS	The DENR Regional Office will provide field level and on-site administrative, logistical, technical support and personnel during the PPG phase, as well as technical inputs into the project design.

Stakeholders	Expected Role in Project Preparation
Regional Development Council (RDC)	The Regional Development Council (RDC) XI is the highest policy making body in the region and will provide oversight / inputs into the project design. As its technical secretariat, the NEDA Regional Office XI provides the technical staff and secretariat support to the Council and all its Committees.
Local Government Units (LGUs)	The LGUs of Mati and Malita, and probably also of Tarragona, Santa Maria, and Don Marcelino, will help to design project activities relevant to the establishment, expansion and management of MPAs, deciding on the location of the MCAs in the project sites, and in the promulgation of regulations to reduce or eliminate destructive and illegal fishing within their respective municipal waters.
PBPLS - PAMB	The Protected Area Management Board (PAMB) for the Pujada Bay Protected Landscape and Seascape (PBPLS) is the policy making body and provides oversight for management, as well as in the formulation and implementation of the Protected Area Management Plan (PAMP). The PAMB will be a key partner in planning and implementing the MPA-related activities of the project and will actively participate in the design, planning, and implementation of the proposed MWPAN.
CSOs (e.g., NGOs, POs)	<p>The Marine Wildlife Watch of the Philippines (MWWP) is a non-profit organization that supports conservation activities, focused on long-lived marine animals such as dolphins, whales, dugong, sharks, rays and marine turtles and their habitats. MWWP has been proposed as the Local Responsible Partner (LRP) of the project and has been providing technical support as well as resources, such as reports, data, information, maps, etc. during the PIF stage; it is also expected to provide the same nature of support during the PPG phase. At the Mayo Bay project site, the local People's Organization (PO) <i>Amihan sa Dahican</i> is involved in monitoring of dugongs and hatchery management and monitoring of marine turtle nesting beaches; they will participate and share on-the-ground experiences and challenges as well as recommendations during the PPG phase.</p> <p>Various fishers and fishing people's organizations (POs) will be engaged in project preparation from the start, including the Agustin Fisherfolks Association in Brgy. Ugpao Fishermen's Association, Small Fish Cage Operators, Muslim Community Leaders, Fisherfolk Organizations, Tagaliling Marine Protected Area Fisherfolks Association, Nagkahiusang Mangissda sa Mati Fnd Inc. (NFI in Pujada Bay), and Sambuokan Urban Maitum Fish Processor Association (SUMFPA), among others. An in-depth stakeholder analysis will be conducted during the PPG stage to identify other potential partners from CSOs with relevant mandates and capacities to engage with the project. CSOs can play the role of service providers, providing basic community services such as solid waste management, sustainable livelihood projects, environmental education, and awareness. They can also be tapped as advocates/campaigners. In many parts of the country, CSOs also participate in local governance processes, such as protected area management bodies and community-based enforcement units. Some of these CSOs should be GEF-accredited CSOs in the area.</p>
Indigenous Peoples (IP) groups	During the first stakeholder consultation round in the project sites, LGUs reported the presence of IP groups (i.e. Mandaya in Tarragona and Mati; the tribal school in Don Marcelino). In order to gather more information on the IP status in the project sites, consultations were also carried out with the National Commission of Indigenous Peoples (NCIP). The Region XI NCIP Director confirmed that IP groups are present in all of the project sites, and some of the claims include traditional waters (this project includes coastal and marine areas). Some Certificates of Ancestral Domain Titles (CADTs) were also reported, but applications for CADTs are in various process stages and will need to be validated during the PPG Phase. No tribal population numbers, locations, or occupations have been obtained yet. Detailed consultations with local indigenous communities will take place throughout the PPG Phase and there will be targeted assessments of project activities and potential impacts for indigenous communities, including assessment of whether FPIC will apply to any project activities.

Stakeholders	Expected Role in Project Preparation
Bantay Dagat and Wildlife Enforcement Officers (WEO)	Deputized community-based enforcement groups such as Bantay Dagat and WEOs will play critical roles in the monitoring of compliance, as well as in the actual enforcement of ordinances and regulations. They will also participate in the filing and following up of legal cases against violators, including serving as witnesses during legal proceedings.
Fisheries Aquatic Resources and Management Councils (FARMCs)	FARMCs at the municipal and barangay levels will be engaged during the design and implementation phase at the barangay, municipal, provincial, and regional levels, to ensure meaningful participation of local fisherfolk and other resource users in the community-based planning and implementation of policies and programs for the management, conservation, development and protection of fisheries and aquatic resources of the municipal waters.
Academic Institutions	The Davao Oriental State College of Science and Technology (DOSCST-RIC XI) will provide technical and scientific inputs to the project design. In collaboration with the City of Mati, the DOSCST-RIC XI, and the PENRO conducted the “Dugong and Marine Turtles Comprehensive Biological Research in Mayo and Pujada Bay Protected Seascape and Landscape”. During the PPG phase, the scientists from DOSCST will be invited to participate in workshops and consultation as resource speakers and source of scientific papers, reports, maps and other technical information and data. Other schools, universities, and colleges on site include the Southern Philippines Agri-Business and Marine and Aquatic School of Technology (SPAMAST), formerly known as Malita Agri-Business and Marine and Aquatic School of Technology and Davao Oriental State College of Science and Technology, the University of the Philippines (Mindanao), and also the University of Tokyo that conducted research on dugong and/or ecosystems (seagrass, coral reefs, mangroves). All other schools (i.e., High School, Elementary Schools, at least one Tribal Filipino school) will also be members of the stakeholders to be engaged in information, education, and communication campaign for biodiversity and habitat conservation.
Mindanao Development Authority (MinDA)	The Mindanao Development Authority is a government agency that aims to “promote, coordinate and facilitate the active and extensive participation of all sectors to effect the socioeconomic development of Mindanao”, and it serves as the coordinating office for all Brunei-Indonesia-Malaysia-Philippines East Asian Growth Area (BIMP-EAGA) related programs. MinDA will contribute to the project strategies for private sector engagement.
Private sector	In order to enable sustainable financing of conservation activities over the long-term, the project will explore potential partnerships with tourism operators, with telecommunication giants GLOBE and SMART to provide IT and communication support, with Discovery Flights to support aerial surveys and monitoring of ETP marine wildlife, and with the Aboitiz Foundation based in Davao.

3. Gender Equality and Women's Empowerment

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

Gender will be mainstreamed throughout the project’s design and implementation. A full Gender Analysis will be undertaken during the project preparation stage to determine the differentiated roles of women and men in biodiversity conservation (in particular for ETP marine wildlife) and natural resources management at the project sites. The results of this analysis will be used to develop a Gender Action Plan, including gender-sensitive and sex-disaggregated indicators, which will become the basis for monitoring and evaluating the project’s impact on promoting gender equality and empowerment of women, youth and other marginalized sectors. During project preparation, consultations with community groups and NGOs involved in coastal and marine ecosystem conservation will take place in ways

that will ensure women's meaningful participation, depending on their preference for mixed or separate groups. Through its efforts to equally engage women and men in addressing threats to marine wildlife, the project will be mindful neither to further gender stereotypes nor widen inequalities, and will address socio-economic concerns such as unpaid care work in order not to add to the burden of women. The project design also will be aligned with the GEF policy on "Environmental and Social Safeguard Standards and Gender Mainstreaming". **The project will comply with UNDP's procurement procedures that explicitly recognize the promotion of gender equality as a standard business practice.**

The project implementation team will work with the GAD (Gender and Development) focal point system (FPS) and GAD Office of the DENR. This unit is responsible for assessing the gender responsiveness of the systems, structures, policies, programs, processes and procedures of the Department based on priority needs and concerns of constituencies and employees, and the formulation of recommendations including their implementation. It also assists in the formulation of new policies for advancing women's status.

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; and/or Yes

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Private sector partners are expected to play a key role by investing in integrated conservation-development projects such as nature-based tourism and sustainable livelihood projects. Discovery Flights and the Mindanao Saga Flying School are already providing tourism services in the area around the Mati project site, and they are potential partners for project

activities to carry out aerial surveys and monitoring of ETP marine wildlife. The Aboitiz Foundation based in Davao, which supports education, enterprise development, environment, and health and well-being programs, currently manages a rescue facility for stranded or accidentally caught turtles and supports efforts to protect a marine turtle nesting beach near Davao City. The project will explore potential partnerships with the telecommunication companies Globe Telecom and Smart Communications to provide Information Technology (IT) and communication support to the project. A major watershed in Mindanao is being eyed for the implementation of Payment for Ecological Services (PES) programs; the project will evaluate and conduct assessments for potential PES schemes in the project sites. Users and beneficiaries of ecosystem services from the private sector will be encouraged to participate in those schemes from the assessment stage up to implementation. The Don Antonio O. Floirendo Sr., Foundation Inc. (AOF), a non-stock, non-profit organization established mainly to bring community support services to uphold people’s lives through participatory community building is another potential partner for the project. Potential support from the AOF may include community capacity building for sustainable livelihoods as well CEPA materials which can be widely disseminated in the project sites and beyond. Except for AOF, no other preliminary discussion has been done with private sector stakeholders to ascertain level of interest in this project. However, support will be leveraged from the private sector for conservation and management activities through their corporate social responsibility programs but with due diligence or vetting to be done prior to formal engagement to avoid reputational or “greenwashing” risk. Consultations and meetings will be conducted during the PPG-Phase. UNDP’s due diligence on private sector engagement will be used to thoroughly vet and assess the companies prior to confirming any engagement with them.

Aside from engaging with private companies and local stakeholders, the project will also work closely with government authorities based in the region with mandates for economic development and environmental sustainability, i.e., MinDA and the Regional Development Council (RDC) XI of the National Economic Development Authority (NEDA). MinDA is currently implementing a Mindanao Development Corridor Program, which has five development clusters, one of which is the Biodiversity and Eco-Tourism Cluster. The corridor is characterized by diverse ecosystems, including mountains, rainforests, and spectacular waterfalls, cave formations, rivers and shorelines, and encompasses the Agusan Marsh Wildlife Sanctuary, the famous Enchanted River of Hinatuan and Tinuy-an falls. The project will explore diversifying MinDA’s portfolio of nature-based tourism to include coastal and marine ETP marine wildlife watching as a tourism product. Finally, the current overall Framework of the Regional Development Plan (2017-2022) guides the private sector in its investment decisions and provides a platform to influence investors to support interventions under this project. The Framework has 15 Development Themes, one of which is “Ensuring Ecological Integrity, Clean and Healthy Environment”.

5. Risks

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

The overall project risk classification according to the Pre-SESP was: High.

Table 3: Risks, Ratings, and Mitigation Strategies

Risk	Rating	Mitigation Strategy
<p>POLICY: Project implementation is anticipated to take place during the transition to a new national president, and decision makers at regional, provincial, and municipal levels may change. Changing political leaderships, particularly in the municipalities, can render project implementation challenging and could possibly limit some of the project results.</p>	Low	<p>Political support and buy-in from LGUs and national agencies need to be secured for the project implementation. This can be achieved by convincing decision makers of the benefits their constituents will gain through the project interventions. It is furthermore essential to convince the people in the municipalities of the benefits of this project and secure their buy-in and ownership, as well as active participation early on, ideally from the start of project implementation planning. This will ensure that the support of the project will be sustained if ever there are changes in leadership after the elections.</p>
<p>POLICY: Bias of municipal LGUs towards developing mass tourism in priority habitats of ETP MW.</p>	Moderate	<p>The project will work to convince local decision makers to prioritize the development of sustainable eco-tourism and to highlight ETP MW as a tourism product in its natural environment. To achieve this, the project will provide technical assistance to the LGUs in the formulation of their respective Ecotourism Development Plans.</p>
<p>CONFLICTING JURISDICTIONS AND/OR MANDATES: DENR has the authority to manage dugongs and marine turtles, while DA has the authority to manage all other marine and aquatic species, including cetaceans, whale sharks, mantas and other elasmobranchs. In terms of coastal and marine ecosystems, DENR has authority over mangroves and beach forests, and DA has authority to manage corals and seagrass.</p>	Low	<p>DENR through BMB and DA through BFAR have on-going initiatives to collaborate in thematic areas, particularly in the coastal and marine sector. The project will revisit the functions and capacities of DENR-BMB and DA-BFAR for effective marine wildlife conservation, and facilitate their coordination for joint project activities at all levels. In the creation of the various MCA management regimes, particularly LCAs, MPAs and MWPAN, the respective mandates of the national government agencies will be translated into LGU initiatives through capacity-building of LGUs in coastal and ecosystem monitoring, evaluation and reporting, coastal law enforcement, and CEPA.</p>

SOCIAL: The establishment of MCAs in areas that were previously open access will restrict fishing activities in some areas and may generate opposition from some fishers

Moderate

As noted in a series of papers on MPAs and livelihoods[1], protected areas can “restrict access to natural resources and thereby reduce opportunities for local (economic) development and subsequently impact well-being of local populations”, but they can also “bolster ecosystem services, which, in turn, is expected to increase the future well-being and economic opportunities of the local populations” (p. 127). Several factors can contribute to either outcome, including positive and negative impacts on fish availability (i.e. increases through spillover vs. decreases from displacement / loss of fishing grounds); household incomes (i.e. increases through alternative income generating activities vs. decreased fishing income); and ecosystem functioning (i.e. increased ecosystem resilience vs. ecosystem degradation due to increased conflict and competition) (p. 135). The report also notes that a High Level Panel of Experts on Food Security (of the World Committee on Food Security) concluded its review of the potential impacts of MPAs on livelihoods and food security by stating “inter alia that no generalization was possible and that MPAs could have positive or negative effects depending on the context, i.e. the geography, initial ecological and socio-economic conditions, internal dynamics and external drivers associated with the protected area.” (p. 152). During the PPG phase, the proposed project will therefore seek to assess the potential impacts on MPA establishment and marine conservation activities on livelihoods in its project intervention areas by developing a Stakeholder Engagement Plan and an Environmental and Social Management Framework (ESMF), and carrying out a Livelihood Feasibility Study (LFS) in all project sites (Output 2.2.3), which will form the basis for the identification of viable alternative livelihoods, technical assistance, and training to address this potential risk.

The project will work towards empowering local communities in making decisions to improve the management of existing MPAs. The MPAs will become fish refuges that actually help to restore fish populations and provide a net benefit to local fishermen over the long term due to spill-over effects. A decrease in fish volume caught because of the areal restriction is rather a short-term limitation, as this form of protection often leads to long-term benefits for fishing activities outside the protected areas. The surplus in fish produced inside the protected area spills over into adjacent waters, benefitting fishermen there. Zoning will identify multi-use areas, such as non-commercial/artisanal fishing activities that can co-exist alongside MPAs. The project will actively engage with affected fishing communities during site-based interventions and e.g. support their deputization as fish wardens (“*Bantay Dagat*”) by the LGU or the Bureau of Fisheries and Aquatic Resources (BFAR) (or as mangrove forest guardians (“*Bantay Gubat*”)) to become co-managers of the marine and coastal resources in their respective areas. Under the Philippine Fisheries Code, LGUs are mandated to create fisheries and aquatic management councils composed of local fishers, to ensure that small fishers’ rights for preferential use of resources are taken into account. Under the project, communities will be consulted prior to and will be engaged throughout the MCA establishment and management process, and community members will receive training in MPA management and law enforcement, enabling them to manage MPAs and to receive incentives for conducting patrols in the context of coastal and fisheries law enforcement.

The project will conduct a Livelihood Feasibility Study in all project sites (Output 2.2.3), which will form the basis for the identification of viable alternative livelihoods, technical assistance, and training. Identified livelihood improvement activities will be prioritized to target people that suffer from economic displacement due to MCA establishment and/or expansion and/or improved enforcement. Furthermore, activities to support the establishment of biodiversity-friendly enterprises will be undertaken, which will provide diversified livelihood opportunities for fishers who have reduced access to fishing areas, including training in fisheries related activities such as fish processing, food catering, seaweed farming; and in tourism related activities such as guiding, homestays, textiles and mat weaving, development of souvenir items from up-cycling of plastics, etc.

SOCIAL: There is a risk that IPs in the project sites might not be adequately involved in project design and/or potentially be impacted by project activities, some of which may also require a Free, Prior and Informed Consent (FPIC)

High

During the stakeholder consultation meetings, the LGU in Don Marcelino and the Regional Office XI both reported IP presence with existing Certificates of Ancestral Domain Titles (CADTs). For Region XI, only two CADTs in Davao City seem to have been applied for (as of March 2018), which do not affect the project sites.[1] Others, like the one in Don Marcelino, have not been confirmed and need to be validated during the PPG-Phase, as there seem to be claims, but no CADT petitions seem to have been filed by IPs. CADTs that have been verified are one by the Mandaya IPs in the municipality of Tarragona (Survey completed: Petition no R11-DO-0009; Date filed: 07-10-13; Year funded: 2014; Estimated area: 40,000 ha), and another one by the Mandaya IPs in the municipalities of Mati and Lupon (On-going survey (as of March 2018), no petition number; Estimated area: 8,000 ha).[2] A detailed description of the CADT will be gathered during the PPG. In order to gather more information on the IP status in the project sites, initial consultation was carried out with the National Commission of Indigenous Peoples (NCIP). The Regional Director of the NCIP of Region XI confirmed the presence of IP groups in all project sites and some of the claims include traditional waters (this project includes coastal and marine areas).

In addition, the project may limit natural resources and/or traditional livelihoods of IPs living in coastal areas, as MCAs may restrict the access to fishing areas and thus decrease the volume of fish that can be legally caught in the short-term. In the long-term, spill-over effects from MPAs are expected, and appropriate zoning of MCAs as well as sustainable livelihoods from conservation initiatives will ensure a balance between conservation and livelihoods.

Moreover, a Stakeholder Engagement/Capacity Building/Sustainable Livelihood Specialist with IP expertise and a National Gender/Safeguard Specialist with IP expertise will be engaged and collaborate during the PPG-Phase to design a comprehensive local community and IP engagement strategy including guidance on FPIC, in line with SES guidance note on Standard 6. This will ensure the full, effective and meaningful participation of IPs in the project. Detailed consultations with local indigenous communities will take place throughout the project cycle, from development to implementation, in order to ensure ownership and sustainable interventions in the long term. During the PPG, there will be targeted assessments of project activities and potential impacts for indigenous communities, including assessment of whether FPIC will apply to any project activities. Based on these results, an Indigenous People's Plan will be developed and a FPIC will be obtained during the PPG-Phase, where applicable. These will be complemented by the plans mentioned above under the first Social Risk.

<p>SOCIAL: Existing gender biases and/or socio-economic roles may limit the opportunities for women to fully participate in project decision-making and activities or to benefit from the employment, income or other benefits generated by the project.</p>	<p>Moderate</p>	<p>The Philippines has one of the smallest rates of gender disparity in the world (i.e., ranked 10th in the Global Gender Gap Index 2017; listed in UNDP Gender Development Index Group 1 countries). Nevertheless, a Gender Analysis is needed to clarify relevant gender concerns and identify how the mainstreaming of women into the project interventions can be achieved. This includes a focus on how to provide specific training for women, and how to ensure that women have equal opportunities to participate in project activities and decision-making and to benefit from livelihoods and other opportunities generated by the project. During the PPG phase, a full Gender Analysis will be conducted in consultations with relevant women’s groups / leaders will be carried out by the project’s development team. A comprehensive Gender Action Plan will be developed (for implementation during the full project), that will help identify needs and opportunities to reduce potentially adverse effects of the project on men and women, as well as promote and mainstream gender equality within the project. The project design will be aligned with the GEF policy on “Environmental and Social Safeguard Standards and Gender Mainstreaming”; also with UNDP’s procurement procedures that explicitly recognize the promotion of gender equality as a standard business practice. The implementation team will work with the GAD (Gender and Development) focal point system (FPS) and GAD Office of the DENR.</p>
<p>ENVIRONMENTAL: Project outcomes are vulnerable to climate change impacts, e.g. rising seawater temperatures that lead to coral bleaching; changes in marine trophic food chains due to changes in currents, storms, and water temperatures; changed migration patterns and time spent in developmental habitats for some ETP MW species.</p>	<p>Moderate</p>	<p>The project will support ecosystem-based management strategies, which will result in an increased ecosystem and community resiliency to climate change impacts. The establishment and effective management of MCAs reduces the risk of adverse climate change impacts on species and ecosystems, as these MCAs act as stepping stones for migration, habitats for larger species, and provide additional protection to coastal habitats – including mangroves, coral reefs and seagrasses – that are known to reduce the impacts of extreme climate events by attenuating wave heights, reducing the impacts of severe winds, etc. Networking of MCAs is considered a climate change adaptation strategy as it promotes inter-connectivity of coastal and marine ecosystems and ecosystem representativeness, which also contributes to increased productivity, e.g. of fisheries resources. The project will assess the vulnerability of people, ETP MW, and ecosystems to climate change impacts in all project sites, using the tools recommended by the Intergovernmental Panel on Climate Change. Site based adaptive strategies will be developed based on the assessment results.</p>
<p>ENVIRONMENTAL: Coastal productive sector operations (e.g., a coal plant in Malita; mining in Compostela Valley; upland banana farming in Davao Occidental) could have negative impacts on ETP marine wildlife and their priority habitats in the project sites.</p>	<p>Moderate</p>	<p>The project supports an inclusive and participatory approach to include all stakeholders, whether on-site or off-site, in consultations to raise their awareness about possible negative impacts on coastal and marine ecosystems. The project will undertake vulnerability assessments in the three project sites, and based on these, will identify any important issues and develop adaptation strategies together with relevant stakeholders. The project will also work to increase public awareness and active support for environmentally friendly practices.</p>

<p>SOCIAL: Private Sector partners may use the agenda of the project to further their public image without substantially contributing to project achievements.</p>	<p>Low</p>	<p>The willingness of private sector partners to invest time, financial means, technical knowledge etc. will be thoroughly examined before a formal collaboration will be established in the context of this project. This will prevent using socially and environmentally beneficial projects for “greenwashing” purposes. This will further be supported by UNDP’s due diligence on private sector engagement, which will be used to thoroughly vet and assess the companies prior to confirming any engagement with them.</p>
<p>SECURITY: Project implementation activities could be impacted by a fragile security situation in southern Mindanao.</p>	<p>Low</p>	<p>The organizational set-up proposed by the project is the creation of Composite Teams of members from both the communities and enforcement agencies. Philippine experience with Composite Teams has shown that peer pressure from within the team discourages members from engaging in inappropriate actions and behavior. In addition, the engagement of on-site personnel from NGAs should be negotiated with high ranking officials and covered by MOUs/MOAs, which should include among others, the assurance of partner NGAs that their personnel will not engage in inappropriate actions and behavior or illegal acts, and corresponding disciplinary actions and punishments will be imposed on erring personnel.</p> <p>This risk will be mitigated by, for example, training deputized WEOs from law enforcement agencies in the human based approach, Values Formation training for all enforcement team members including representatives from NGAs, having a proper grievance mechanism in place, establishing clear protocols that follow a no-harm approach, and the development of an Enforcement Plan, with details on the enforcement system to be set-up, protocols and procedures, apprehension process and incentive systems.</p> <p>All project operations will contain a security component, e.g. early warning system, local networks of trust, etc., which will guarantee the protection of staff by local and national security forces, whenever necessary. Other sources of intelligence will be identified and tapped to provide up to date information regarding security matters.</p>
<p>SECURITY: Security Personnel to be deputized as Wildlife Enforcement Officers (WEOs) may cause some negative impacts on communities if their training is not properly carried out or somehow insufficient</p>	<p>Moderate</p>	<p>Potential mitigation activities may include e.g. training deputized WEOs from law enforcement agencies in the human based approach, Values Formation training for all enforcement team members including representatives from NGAs, having a proper grievance mechanism in place, establishing clear protocols that follow a no-harm approach, and the development of an Enforcement Plan, with details on the enforcement system to be set-up, protocols and procedures, apprehension process and incentive systems.</p>

[1] <https://www.doe.gov.ph/sites/default/files/pdf/eicc/ad-region11.pdf>

[2] <https://www.doe.gov.ph/sites/default/files/pdf/eicc/cadt-region11.pdf>

6. Coordination

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

Project Institutional Structure

DENR-BMB will act as the project Executing Agency[1] and the Executive of the Project Steering Committee. DENR-BMB, together with the co-financing partners and beneficiaries, will constitute the Project Steering Committee, which will meet regularly to discuss the progress of the project, ensure it is aligned with the identified actions, and incorporate feedback from project implementation in order to adjust interventions as necessary. The Marine Wildlife Watch of the Philippines (MWWP) will be the Local Responsible Partner. Local Implementation Partners will be representatives from DENR Region XI, the Provincial Governments of Davao Oriental and Davao Occidental, the Municipal Governments of Mati, Tarragona, Malita, Santa Maria, and Don Marcelino, and identified CSOs in the area. UNDP will be accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP will also be responsible for the Project Assurance role of the Project Board/Steering Committee.

The Project Management Unit (PMU) will consist of the Project Team Leader, Project Coordinator, and Financing/Administrator. The PMU will be hosted by the BMB (Wildlife Resources Division and Coastal and Marine Division). Monitoring and Evaluation (M&E) will be conducted by the PMU in accordance with established DENR, UNDP and GEF procedures. The M&E system will rely on three components: Day to day monitoring of implementation progress, biannual and annual monitoring reports during the grant disbursement period, and mid-term review and final independent evaluation focusing on the project's effectiveness, efficiency, sustainability, relevance and coherence. An inception meeting will convene all relevant stakeholders and determine budget/personnel/training requirements. Site visits will ensure that activities are implemented according to plan. A logical framework will be developed for monitoring project performance and delivery, using SMART indicators during project implementation. A results matrix and work plan will provide additional information on the allocation of funds for expected project deliverables and the timing of project activities. Delays or difficulties faced during implementation will be communicated to DENR-BMB immediately, so that the work plan may be adjusted.

Coordination with Other GEF/Non-GEF Financed Projects

The project will collaborate with the following GEF-supported projects:

Projects	Proposed Collaboration between Projects
----------	---

<p>GEF/UNEP-DENR</p> <p><i>Natural Capital Accounting and Assessment: Informing development planning, sustainable tourism development and other incentives for improved conservation and sustainable landscapes approved in Dec. 2019</i></p>	<p>The project will seek opportunities for collaboration and information sharing with the on-going NCAA project. Among other activities, the NCAA project will work in and around the Mount Hamiguitan Range Wildlife Sanctuary, which is adjacent to two of the bays targeted by this proposed project; this presents an opportunity to encourage the NCAA project to undertake activities that have a positive impact on the water quality in these bays. In addition, the NCAA project includes coastal / marine site (the Calamianes Group seascape and therefore may generate lessons on the use of natural capital accounting processes for coastal / marine landscapes developed that can guide activities in this project, such as planning / zoning processes for MCAs, as well as generating natural capital accounting results on the value of coastal and marine biodiversity and habitats developed that can be utilized to raise awareness of and support for conservation of the MCAs targeted by this project. The two projects also will seek to share strategies and data, and avoid duplication in the same landscape, with regard to the development of biodiversity friendly enterprises and ecotourism.</p>
<p>GEF/CI-Rare</p> <p><i>The Meloy Fund: A Fund for Sustainable Small-scale Fisheries in Southeast Asia 2017-2022</i></p>	<p>The project will seek opportunities for collaboration and information sharing with the on-going Meloy Fund project. In particular, it will seek to share ideas and strategies related to activities under the Meloy Fund project to strengthen the capacity and constituency amongst fishers and communities to support sustainable fishing practices and to improve regulations regarding fisheries violations in priority marine ecosystems, which complement the proposed project's activities to provide local stakeholders including fishers with opportunities to engage in conservation or fisheries management activities such as beach and underwater clean-ups, seasonal closures for specific fishing gear; monitoring and enforcement, etc., and to strengthen enforcement of fisheries practices in order to reduce pressures on coral reefs and other vulnerable coastal and marine ecosystems as well as to provide technical assistance to LGUs in the formulation and/or amendment of municipal fisheries codes or the development of an LCA-wide unified fisheries code that promote more sustainable fishing practices.</p>
<p>GEF/UNDP-DENR <i>Strengthening the Marine Protected Area System to Conserve Marine Key Biodiversity Areas (SMARTSeas)</i></p> <p>2014-2021</p>	<p>The proposed project will share strategies and approaches with the SMARTSeas project on scaling up to Marine Protected Areas Networks (MPANs), creating Joint Management Committees for newly established MPANs, carrying out competency assessments of MPA managers and staff, and the establishment, management, and funding of MPANs. In addition, the proposed project will build on the already existing efforts in the Region XI, which is part of the five pilot sites of the SMARTSeas Project (Davao Gulf). Cetacean surveys conducted under the SMARTSeas Project in 2016[1] and 2018[2] identified various species congregating around the mouth of Davao Gulf (project site 3); these and other surveys will provide the baseline data from which conservation measures as well as the potential for cetacean-based eco-tourism can be derived.</p>

[1] AL Barcelona et al. 2016. Cetacean Survey for Davao Gulf 2016. WWF-Philippines Smart Seas Project. 28pp (unpublished)

[2] AL Barcelona et al. 2018. Cetacean Survey for Davao Gulf 2018. WWF-Philippines Smart Seas Project. 29pp (unpublished)

7. Consistency with National Priorities

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

Yes

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

The project contributes to the implementation of the Philippines Biodiversity Strategy and Action Plan (PBSAP) 2015-2028, specifically Targets 1, 3, 7c, 10i, 12a and b, 14, 17, 18, and 20. Moreover, the Outcomes from Project Component 1 are derived from the PBSAP, which will facilitate reporting and direct attribution to national goals. The Philippine Development Plan (PDP) 2017-2022 takes up the sustainable management of natural resources in Chapter 20, particularly in Subsector Outcome 1: Biodiversity and functioning of ecosystem services sustained (p. 323). The project will address the key strategies for this outcome, including: National reporting: CBD/IOSEA/Dugong; Climate change action plan; MTCAP & DCAP; and MTPAN. The project is focused on areas identified as Conservation Priority Areas for dugongs, cetaceans, marine turtles, whale sharks and seagrass in the Philippine Biodiversity Conservation Priorities Report.

The project contributes to the National Framework Strategy on Climate Change (2010-2022) whose objectives include the improved resilience of coastal and marine ecosystems and communities to climate change (9.2.2 Coastal and Marine Systems); and mainstream biodiversity adaptation strategies to climate change in policies, programs and programs of national and local government agencies (9.2.3 Biodiversity). The project will address key strategic priorities for both objectives, including the establishment of an MWPANs, establishing standards for implementing biodiversity conservation programs; prioritizing coastal and marine ecosystem protection and management; strengthening multi-sectorial and community based coastal resource management mechanisms; strengthening multi-sectorial coordination in implementing biodiversity conservation and adaptation strategies to climate change; and protecting vulnerable ecosystems and highly threatened species from climate change impacts.

Finally, the project is closely aligned with various national policies and action plans related to marine conservation areas, ETP marine wildlife, and conservation of priority habitats, as described in the Baseline section above.

8. Knowledge Management

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

As described in Outcome 3.2, the project will establish a KMS to collect and share best practices, lessons learned, and innovative solutions to common problems of conserving ETP marine wildlife and their habitats, which will include a document management platform with data and lessons learned from recent and on-going initiatives, including the projects mentioned under the baseline scenario, and other relevant information from project partners and local stakeholders. In addition, knowledge products informed by data and lessons learned on ETP MW and priority habitats will be produced and disseminated to target audiences, and starting in year two of the project, an annual national congress will be held to share information, research results, innovations etc. on ETP MW. Building on past and on-going CEPA initiatives from DENR-BMB, the project will put in place a CEPA program in the project sites for various stakeholders, designed to raise awareness on the importance of ETP marine wildlife, MCAs, biodiversity conservation, Ridge-to-Reef interlinkages, etc., and in doing so, achieve behavioural change among key resource users and other stakeholders. The long-term objective is for the KMS to be populated with information on past and on-going projects throughout the entire country, and for the CEPA program to be replicated in future project sites nationwide.

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

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

Name	Position	Ministry	Date
Atty. Analiza Rebuelta-Teh	Undersecretary, GEF Operational Focal Point for the Philippines	Department of Environment and Natural Resources	2/28/2020

ANNEX A: Project Map and Geographic Coordinates

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



Annex B: GEF 7 Core Indicator Worksheet







Annex D: Background Information: Marine Conservation Areas in the Philippines

As of 2009, 123 MKBAs have been identified as priority conservation areas^[1] (see Figure 1); and are established using the standard for the presence of globally-threatened species, restricted-range species and congregatory species, as well as a refinement of sites as defined by the Philippine Biodiversity Conservation Priority-setting Program (PBCPP) of 2002. It should be noted that the establishment of MKBAs has no legal bearing on the sites' protection, but is oftentimes used as a basis for further protection efforts. Therefore, it is important to note that while KBAs are recognized as priority conservation areas, very few have been established as legally recognized Protected Areas and the majority of them remain unprotected or at least only partially protected. For example, of the 77 Philippine MKBAs, 63 are still unprotected.^[2]

^[1] CI, DENR-BMB, and DA-BFAR, *Marine Key Biodiversity Areas. CD and Map.*, 2009, 2009.

^[2] Ambal et al., 'Key Biodiversity Areas in the Philippines'.





As of 2014, there are more than 1,800 MPAs[1], which are generally divided into four categories: 1) marine sanctuaries (any extractive activities are prohibited), 2) marine reserves (extractive and non-extractive activities are regulated), 3) marine parks (uses are designated into zones), and 4) protected landscapes and seascapes (uses are designated into zones, including terrestrial areas). The common objectives of MPA establishment are the following: fisheries sustainability, biodiversity conservation, and tourism and recreation. MPAs are divided into two levels of establishment and governance: national and local. In 2011, 90% of MPAs in the Philippines were categorized as locally managed. Frequent changes in staffing of local MPA management bodies and Local Government Units (LGUs) hamper the continuity of conservation programs, as there is no national agency assigned to monitor and evaluate the progress and effectiveness of locally managed MPAs.[2]

As of 2019, there are six officially designated CHs, but only two focus on marine species: i.e., all marine turtles in Carmen, Agusan del Norte[3], and specifically hawksbill turtles in parts of Magsaysay, Misamis Oriental[4]. CHs are under the purview of the DENR and are co-managed with the LGU. CHs refer to areas (both public and private) that do not fall under RA No. 7586 or the NIPAS Act. The presence of threatened species, as defined in RA 9147 or the Philippine Wildlife Act, is the primary consideration in establishing CHs. Other general considerations include: If areas are used (breeding, nesting, foraging etc.) by a natural population or individuals of a threatened species, or if there are man-made pressures threatening the local wildlife population that needs to be managed. Prohibited acts, and the subsequent penalties in CHs, follow the pertinent provisions (Section 27 and 28) of RA 9147, which includes the dumping of waste products, squatting, mineral exploration/extraction, burning, logging, and quarrying.[5]

An LCA is an area or network of areas within an identified KBA and does not fall under RA 7568 or the NIPAS Act. Unlike CHs, LCA establishment and management falls under the purview of LGUs, supported by the DENR, with DENR-DILG JMC 2003-01 as their legal basis. LCAs are established to conserve areas that have high biodiversity, areas that are vulnerable to climate change, areas that are geologically hazardous as well as areas that have local significance (e.g., historical sites, unique landscapes and areas with ecotourism potential). The main objective of LCAs is to retain, recover, restore and protect natural area conditions, and a key performance indicator is the number of hectares of natural areas conserved. Depending on the LCA Management Plan, the area may fall under strict protection (no human interference or activity) or sustainable use (e.g., production of water and soil conservation, provision of recreational facilities such as ecotourism and the maintenance of wildlife habitats, and the like).[6]

As of 2018 there are 244 NIPAS sites, of which 33 are marine NIPAS sites[7]. NIPAS sites are zoned as follows: Strict protection (closed to all human activities except for research, and ceremonial or religious use by indigenous peoples), multiple use (may be allowed, depending on the protected area management plan, such as income-generating or livelihood activities), and buffer zones (peripheral zones to protect the area from activities that will directly or indirectly harm it). NIPAS sites are under the control and

administration of the DENR, with site-level policy making and management under the DENR-PAMB, while the implementation of the management plan (including enforcement) falls under the jurisdiction of the assigned Protected Area Superintendent (PASu) and the Regional Office of the DENR.[8]

[1] Reniel B Cabral et al., ‘The Philippine Marine Protected Area (MPA) Database’ 7, no. 2 (2014): 10.

[2] Cabral, et al. (2014). The Philippine marine protected area (MPA) database. Philipp Sci Lett. 7. 300-308.

[3] DENR Administrative Order No. 2012-08. (2012).

[4] DENR Administrative Order No. 2016-02. (2016).

[5] DENR Memorandum Circular No. 2007-2. (2007).

[6] UNDP-GEF0BMB NewCAPP.2014. Guide to LCA Management Planning. UNDP-GEF-BMB-New Conservation Areas in the Philippines Project, Quezon City, Philippines.

[7] Dizon, et al. (2013.)Benchmarking the management effectiveness of nationally-managed marine protected areas in the Philippines and policy recommendations Final Report for USAID Coral Triangle Support Partnership (CTSP) and Conservation International – Philippines. September 2013.

[8] Republic Act No. 11038. The E-NIPAS Act of 2018.



Annex E: Background Information: Dugongs and Marine Turtles

A. Dugongs

Apart from its existence value that places the dugong in the second trophic level of the food web as the biggest grazer of seagrass, the dugong provides several ecosystem services: It contributes to the supporting services by stimulating nutrient cycling and energy flow due to excretions in the seagrass areas.[1] Dugongs also participate in cultivated grazing of

seagrass beds, keeping them healthy and growing, thus providing an important nursery ground for other species, such as fish juveniles, many of which are commercially important. This further affects species composition of seagrass communities in that a greater variety of seagrass species may occur.[2] Several species of commercially important fish have been observed approaching the grazed areas immediately after the dugongs left the site, which has been attributed to faunal assemblages being exposed in the dredged substrate that these fish use to feed on.[3] Other ecosystem services dugongs contribute to are cultural services, i.e. recreational experiences in the form of eco-tourism. Several sites in the Philippines have already developed an eco-tourism component based on sightings and snorkelling with these animals

As Signatory to the UNEP-CMS Dugong MoU, the Philippines committed to protect this charismatic species and its habitats. This does not only include investing into a coherent reporting system of sightings, strandings, and other encounters, but also setting up a functional system of enforcement of legislation, conducting scientific research on which policies can be based, and building collaborations amongst stakeholders at different levels in the Philippines as well as with partners from other Range States. The DCAP, which was recently completed under the auspices of BMB, offers a national level framework that can be rolled out to local levels of governance and can guide implementation on how to achieve those commitments. This proposed project is anchored on the DCAP and is expected to help achieve its objectives

[1] Heinsohn, 1977 in PCP and Toba Aquarium, ‘Dugongs of the Philippines - A Report of the Joint Dugong Research and Conservation Program’.

[2] Preen, 1992 in PCP and Toba Aquarium.

[3] PCP and Toba Aquarium.



encounters and threats, trends of seagrass cover, and perceived significance of dugongs to the marine environment. These reports gave a good overview over population sizes and trends in the assessed regions, however, the results have never been published.

In the Dugongs and Marine Turtles Comprehensive Biological Research in Mayo Bay and the PBPLS administered by the DENR Regional Office, a total of 240 fishermen were interviewed with regard to dugongs in 13 barangays in Mayo Bay and Pujada Bay in 2016. The Key Informant Interviews (KIIs) were conducted randomly and followed a

standardized template from UNEP-CMS. The research included several components: Component 1 – Ground-truthing: Land/Shore-based Survey, Boat based Survey, and Aerial Survey; Component 2 – Toxicology; Component 3 – Seagrass Profiling. Although the study produced viable results, the area assessed was quite small and also only reflects the population at one point of time, as the survey period was only from September to December 2016.

Since 1999, the DENR-BMB has been collecting reports from the Regional Offices, as well as from individual groups, NGOs, municipalities etc. on dugong sightings and strandings. In the best report submissions, the event was described, including where and when it happened, the people in charge and first responders were named, the dugong was measured and recorded, a necropsy was performed and cause of death determined, and pictures of stranding and necropsy were attached. However, these reports are submitted rather opportunistically and do not use a standard template for reporting, which is why the data at hand contains some blanks. These recordings, if taken together with the 2012 dugong catch and by-catch report, provide the most recent and most comprehensive set of data on dugongs in the Philippines. It is therefore recommended to use both sources as a basis for dugong conservation during the implementation of this project. Regular reports on dugong conservation activities are submitted by the DENR-BMB to the UNEP-CMS Dugong MOU Secretariat, the last one in 2017.

A. Marine Turtles

Like dugongs, marine turtles also contribute significantly to securing ecosystem services for human well-being, such as food security, by helping maintain healthy and productive seagrass meadows and coral reefs that serve as spawning areas, nursery grounds, and habitats for commercially important fish species and invertebrates. They can also contribute to increasing the tourism value of islands and beaches where nesting marine turtles and hatchlings emerging from their nests can be observed by tourists through turtle watching activities.

Marine turtles are among the most threatened marine wildlife species in the world. The Marine Turtle Specialist Group (MTSG) of the Species Survival Commission-IUCN estimated a decline of 59% in the green turtle population in the Philippine Turtle Islands over a period of three generations (extrapolated from 1873 to 2001)[1]. As a Signatory to the UNEP-CMS IOSEA Marine Turtle MoU, the Philippines has committed to protect these charismatic species and their habitats from possible extinction and destruction. This includes investing in a coherent reporting system of sightings, strandings and other encounters, and also setting up a functional system of enforcement of legislation, conducting scientific research on which policies can be based, and building collaboration amongst stakeholders at different levels within the country as well as with partners from other Range States. A 10-year MTCAP was recently completed under the auspices of BMB and offers a national level framework for marine turtle conservation in the country. The MTCAP is

ready to be rolled-out to the regions, provinces and municipalities, and implementation guidance will be provided to local partners. This proposed GEF project is anchored in the MTCAP and is expected to contribute to the attainment of its objectives.

B. Tourist interactions with ETP MW

One such example for wildlife-based tourism is the Donsol Whale Shark Ecotourism Project, spearheaded by the LGU of Donsol with the assistance of WWF Philippines. The project was developed in response to the 1998 whale shark fisheries ban in the country, which disrupted the livelihoods of local communities. The conservation project transformed the former whale shark hunting communities into one of the best examples of wildlife ecotourism in the country to date,[2] with economic benefits that led to changing the status of the town from a fifth income class to a third income class municipality[3].

Another example is the case of Malapascua Island, Daanbantayan, which remains to be the only established pelagic thresher scuba diving industry in the world. Thresher sharks are a main feature of the local dive tourism industry, which accounts for over 80% of income in Daanbantayan's economy. The presence of thresher sharks helped the community recover after the devastation brought about by tropical typhoon Haiyan (Yolanda) in 2013.[4]

[1] IUCN MTSG, 'Marine Turtle Specialist Group Review - 2004 Global Status Assessment - Green Turtle (*Chelonia mydas*)', 2004, https://mtsg.files.wordpress.com/2010/07/mtsg_chelonia_mydas_assessment_expanded-format.pdf.

[2] Balisacan, Ryan. (2012). Harmonizing Biodiversity Conservation and the Human Right to Livelihood: Towards a Viable Model for Sustainable Community-Based Ecotourism Using Lessons from the Donsol Whale Shark Project. *Ateneo Law Journal* Vol. 57 pp. 423-462

[3] Save Sharks Network Philippines (2018). Shark Conservation Legislation: A Toolkit for Philippine Policy Makers.

[4] Marine Wildlife Watch in the Philippines. (2016) Thresher Sharks in the Philippines.



