



**Implementing the Strategic Action Programme
for the South China Sea and Gulf of Thailand
(SCS SAP Project)**

First Meeting of the Regional Scientific and Technical Committee

Bangkok, Thailand, 17-19 October 2022

**ACHIEVEMENTS IN IMPLEMENTING THE
STRATEGIC ACTION PROGRAMME IN THE
PHILIPPINES DURING 2008-2021**



Achievements in Implementing the Strategic Action Programme in the Philippines during 2008-2021

INTRODUCTION

Recognizing that actions were urgently needed to halt degradation of the environment of this marine basin, the countries of the region sought the assistance of UNEP and the Global Environment Facility (GEF) in preparing a Transboundary Diagnostic Analysis of the issues and problems and their societal root causes as the basis for development of a Strategic Action Programme (SAP). The up-dated Strategic Action Programme was one of the anticipated outputs from the UNEP/GEF Project entitled “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*” (SCS Project), and the document contains the final text as approved by all countries during the 8th meeting of the Project Steering Committee in Hanoi, Viet Nam, August 2008. It was anticipated that the countries would commence implementation of the envisaged actions in 2008/2009 in parallel with the process in seeking further support from GEF for the SAP implementation.

The SAP established a series of objectives and priority costed actions for coastal habitats, land-based pollution management, and the over-exploitation of fish stocks in the South China Sea. In order to implement the SAP, at the regional level, the GEF adopted on November 03, 2016 the project entitled “*Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP Project)*”. It was noted that regional actions would contribute to achieving the target through: capacity building for activities at the national and local levels; provision of opportunities in exchange of experiences and good practices among countries in the region; common guidelines and other tools used by countries in management planning and practices; standardisation in regional synthesis and comparison; provision of sound scientific information for management; and encouraging governments at all levels to develop policy related to environment management. It was also emphasised that actions at the national and local levels are critical for success of the SAP targets. National Action Plans (NAPs) were developed in all participating countries and had been, or would be adopted by, governments to meet national priorities and to contribute to regional targets incorporated in the SAP.

As other participating countries, the Philippines developed the NAPs for habitat and land-based pollution management during the course of the SCS Project and have conducted a series of activities in implementing the SAP and NAPs since 2008. This evaluation provides evidences on proactive contribution of the Philippines in implementing the SAP and NAPs on mangroves, coral reefs, seagrass and coastal wetlands and supports to estimate country co-finance for environment management in the SCS during last decade. The reviews of past activities and outputs would be helpful for seeking the gaps which shall be addressed in implementing the SCS-SAP project in 2022-2023.

EVALUATION OF ACHIEVEMENTS

1/ Mangroves

SAP Targets and Summary of Achievements

The SAP targets for mangroves in the Philippines focus on improving the management of mangrove areas utilized for the sustainable use of non-mangrove resources or economically important mangrove associated species. This will be achieved via the development and implementation of sustainable use management plans for 2,000 ha of mangroves, as well as the reform of laws and regulations for the sustainable use of mangrove areas in the Philippines. This aims to increase the total area of mangrove being managed effectively on a sustainable use basis from 26,000 ha to 28,000 ha. The SAP targets also focus on increasing the area of mangrove designated as a National Park or assigned Protected Area status from 27,100 to 27,731 ha. It will also result in the replanting of 2,000 ha of deforested mangrove land and the enrichment planting of a further 1,000 ha of mangrove to increase biodiversity.

There existed many activities using national resources for implementing the SAP in last years since 2008 with numerous outputs which are summarized in table 1 below.

Table 1. Summary of the SAP targets for mangroves and achievements (ha) during 2008-2021 in 5 sites of the Philippines

Regional output	SAP target (ha)	Accomplished						
		Busuanga	Coron	San Vicente	Ulugan	Quezon	Subic	Total
1.1.1 Declaration of 57,400 ha of mangrove as National Parks and Protected Areas	631	755	2,224	675	789	1,616	NA	6,059
1.1.2 Designation and plans for the management of 166,600 ha of mangrove as non-conversion, sustainable use areas	0*							
1.1.3 Reform of laws and regulations for the sustainable use of 602,800 ha of mangrove forest	2,000	1,619	2,739	910	928	1,935		
1.1.4 Replanting of 21,000 ha of deforested mangrove land	2,000	177	279	204	124			
1.1.5 Biodiversity increased for 11,200 ha of mangrove forest via enrichment planting	1,000							
1.1.6 Monitoring of management effectiveness		X	X	X	X			

Descriptions

1.1.1 Declaration of 57,400 ha of mangrove as National Parks and Protected Areas

- Busuanga

Total mangrove area in Busuanga is estimated at 1,618.79 has. 755.08 ha mangroves are situated within protected areas while 863.72 has mangroves are outside protected areas (NAMRIA 2017).

- Coron

The total mangrove area in Coron is 2,738.68 has. Out of this total, 2,224.68 has are within protected areas while the remaining 514 has are outside protected areas (NAMRIA 2017); This MPA is under management of Municipal Government of Coron

- San Vicente

The total mangrove area in San Vicente is 910.13 has. Of this total, 675.43 has are within protected area while 196.10 has are outside PA (CRM less PA) and 38.60 has distributed in other areas (NAMRIA 2017). This data will be validated to ascertain where the 38.60 has which is designated as “other areas” are located.

- Ulugan

Total mangrove area in Ulugan Bay is estimated at 928.34 hectares distributed as follows: 779.91 hectares within PA + 148.43 hectares mangroves outside PA (NAMRIA 2017).

- Quezon

Total mangrove area is 1,934.49 has: 1,618.10 has (mangroves within PA) + 329.86 has (mangroves outside PA, CRM less PA) (NAMRIA 2017). This data will be validated considering that there is 13.47 ha that is unaccounted for.

1.1.2 Designation and plans for the management of 166,600 ha of mangrove as non-conversion, sustainable use areas
N/A

1.1.3 Reform of laws and regulations for the sustainable use of 602,800 ha of mangrove forest

- Busuanga

Total mangrove area (1,619ha) of Busuanga has been regulated by Municipality of Busuanga ECAN Resource Management Plan 2017-2022 and Section 30 of PCSD Resolution No. 05- 250 specifies the use of “Ecological Zoning Plan” (EZP) as the general physical plan of the municipality.

- Coron

Mangrove area of Coron is 2,739ha in the total and has been regulated by Municipality of Coron ECAN Resource Management Plan 2017-2022 and Section 30 of PCSD Resolution No. 05- 250 specifies the use of “Ecological Zoning Plan” (EZP) as the general physical plan of the municipality.

- San Vicente

Total mangrove area (910) of San Vicente has been regulated by Municipality of San Vicente ECAN Resource Management Plan 2017-2022 and Section 30 of PCSD Resolution No. 05- 250 specifies the use of “Ecological Zoning Plan” (EZP) as the general physical plan of the municipality.

- Ulugan

Total mangrove area (928ha) of Ulugannga has been regulated by Municipality of San Vicente ECAN Resource Management Plan 2017-2022 and Section 30 of PCSD Resolution No. 05- 250 specifies the use of “Ecological Zoning Plan” (EZP) as the general physical plan of the municipality.

- Quezon

Total 1,935ha of mangroves in Quezon has been regulated by ECAN Resource Management Plan of Puerto Princesa City 2017-2022 and Section 30 of PCSD Resolution No. 05- 250 specifies the use of “Ecological Zoning Plan” (EZP) as the general physical plan of the municipality

1.1.4 Replanting of 21,000 ha of deforested mangrove land

- Busuanga

Mangrove and Beach Forest Development Program CY 2015 planted: 11 hectares of tidal flatlands with mangrove spp. at Brgy. New Busuanga; 30 hectares of tidal flatlands with mangrove spp. at Brgy. Bogtong;; 40 hectares of tidal flatlands with mangrove spp. at Brgy. Cheey, 6 hectares of tidal flatlands with mangrove spp. at Brgy. Quezon, 14 hectares of tidal flatlands with mangrove spp. at Brgy. Salvacion, 5 hectares of tidal flatlands with mangrove spp. at Brgy. New Busuanga; 34 hectares of tidal flatlands with mangrove spp. at Brgy. Buluang, Busuanga, Palawan

Coastal and Marine Ecosystem Management Program CY 2018 planted 32 hectares of tidal flatlands with mangrove spp. at Brgy. Quezon, Busuanga, Palawan

- Coron

National Greening Program CY 2013 planted 36 hectares of tidal flatlands with mangrove spp. at Brgy. Guadalupe, Coron, Palawan

National Greening Program CY 2015 planted 49 hectares of tidal flatlands with mangrove spp. at Brgy. Bintuan; 2 hectares of tidal flatlands with mangrove spp. at Brgy. Borac; 7 hectares of tidal flatlands with mangrove spp. at Brgy. Guadalupe;

Mangrove and Beach Forest Development Program CY 2015 planted 18 hectares of tidal flatlands with mangrove spp. at Brgy. Bintuan, 74 hectares of tidal flatlands with mangrove spp. at Brgy. San Jose, 6 hectares of tidal flatlands with mangrove spp. at Brgy. San Buenavista; 20 hectares of tidal flatlands with mangrove spp. at Brgy. San Decalachao, Coron, Palawan

Mangrove and Beach Forest Development Program CY 2018 planted 27 hectares of tidal flatlands with mangrove spp. at Brgy. San Decalachao, and 40 hectares of tidal flatlands with mangrove spp. at Brgy. San Decalachao, Coron, Palawan

- San Vicente

National Greening Program CY 2013 establish/rehabilitated 4 hectares of mangrove forest

Mangrove and Beach Forest Development Program CY 2015 establish/rehabilitated 180 hectares mangrove forest and 20 hectares beach forest in the barangays Kemdeng, Poblacion, Port Barton, Caruray of San Vicente, Palawan

- Ulugan

Mangrove and beach forest development project (215) conducted activities in 44 has at LGU-Barangay Bahile, Puerto Princesa City, 30has at LGU-Barangay Buenavista, Puerto Princesa City and 50 has at LGU-Barangay Tagabinet, Puerto Princesa City

1.1.5 Biodiversity increased for 11,200 ha of mangrove forest via enrichment planting

[Name and area (ha) of the site where biodiversity increased and information on increased biodiversity, considering ecological & environmental indicators at enrichment planting sites, including: forest cover; number and diversity of true mangrove species; and size and abundance of *Scylla* spp and *Sesarma* spp]

No available information.

1.1.6 Monitoring of management effectiveness

- Busuanga

Indicators included mangrove height and density; density of planted mangrove and % survival; and aerial drone photography that can be converted into orthomosaic as well as immediate environment indicators such as presence and density of fish juveniles

- Coron

Indicators included mangrove height and density; density of planted mangrove and % survival; and aerial drone photography that can be converted into orthomosaic as well as immediate environment indicators such as presence and density of fish juveniles

- San Vicente

Height measurement of planted mangrove and % survival rate; identify different levels of threats. Utilize new technologies such as drone and GIS mapping. Regular monitoring of key indicators such as presence of different fauna and mangrove species.

- Ulugan

Various researches on the physical condition of Ulugan Bay including monitoring of habitat and socio-economic condition were undertaken by different organizations, researchers and the academe.

2/ Coral reefs

SAP Targets and Summary of Achievements

Status in 2008 indicated that 8 sites among 9 priority sites in the Philippines were under management with 6 under medium and 2 under low management effectiveness. The targeted coral reef area to be added for management through SAP implementation is 10,100 ha, bringing the total area across the nine sites under management to 12,490 ha, taking account of sufficient capacity, approach reformed, tools applied. The implementation of the Strategic Action Programme also aims to increase the management effectiveness across all 14 sites from low and/or medium to high. Table 2 below provided qualitative information on activities at only 4 coral reefs sites where insufficient data was available.

Tabl2. Summary of the SAP targets for coral reefs and achievements during 2008-2021 in the Philippines

	Managed in 2008	SAP target area (ha)*	Total area (ha) ** managed until 2021	Capacity (high, medium, low)	Management approach (ha)	Management Tools (ha)	Monitoring (ha)
Batanes	40						
Bolinao/Lingayen Gulf	750			Medium	X	X	X
Masinloc, Zambales	120			Medium	X	X	X
Batangas Bay, Maricaban Strait	80			Medium	X	X	X
Puerto Galera, Mindoro	20						
Calamianes Group of Islands	300						
El Nido, Palawan	1,000			Medium	X	X	X
Port Barton	80						
Balabac							

Total	2,390	12,490	?				
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* No target in ha indicated for each site, total targets = managed in 2008 (2,390 ha) + added for management (10,100 ha)

** Area (ha) under sustainable management with sufficient capacity, approach reformed, tools applied and stress reduced (**No data available on reef area managed in 2021**)

Descriptions

1.2. 110,430 ha of coral reef at 46 priority sites managed sustainably

Given that data and information available in advance of the 1st RSTC meeting are quite limited, the descriptions below include all activities and achievements under sub-item 1.2.1, 1.2.2, 1.2.3 and 1.2.4 for 4 sites: Bolinao/Lingayen Gulf; Masinloc/Zambales; Batangas Bay and El Nido, Palawan.

1.2.1 Management capacity (number/levels human resources, facilities and equipment, and sustainable financing mechanisms) built for 46 coral reef sites

1.2.2 Management approaches and policy, legal & institutional reforms (integrated, community-based, multiple use) improved at 46 coral reef sites

1.2.3 Management tools (licensing and permit systems, seasonal closures, zoning) developed and utilized to address key threats at priority sites

1.2.4 Established mechanism for monitoring coral reef management

- Bolinao/Lingayen Gulf

As indicated in the SAP, 750 ha coral reefs have been managed since 2008 by BBBIDA MPAN Management Board, a multi-sectoral body headed by the Provincial Governor of Pangasinan as Chairperson (Represented by OPAG) and regulated by the policies approved by the MB and other relevant laws and regulations for the Network.

Main reforms, laws and adopted plans in place to manage the site include the establishment of BBBIDA MPAN on December 21, 2018 and creation of its Management Board and development of draft Strategic Management Plan. Level 1 MPAN based on MEAT conducted in 2019. The Network is currently being jointly managed by CENRO Western Pangasinan and OPAG Pangasinan, and governed by BBBIDA MPAN Management Board, a multi-sectoral body headed by the Provincial Governor of Pangasinan as Chairperson (Represented by OPAG). The Management Actions are anchored on member LGUs' consensus based from the result of the individual MPA assessment using the Management Effectiveness Assessment Tool (MEAT). Activities were prioritized and classified into seven categories namely (1) site establishment and community preparation, (2) Formulation of MPA Management Plan, (3) Adoption of a legal instrument for the established MPAs, (4) MPA site development, (5) Strengthening of MPA Management Body, (6) Communication, Education and Public Awareness, and (7) Enforcement activities.

Data or monitoring available at site are the Biophysical Monitoring (Reef Check Data on Corals) and the Baseline Reef Assessment and Mapping using Reef Check Protocol in 2019 for 7 barangays/14 sites.

- Masinloc, Zambales

Masinloc and Oyon Bay Protected Landscape (MOBPLS) was established as protected landscape and seascape by virtue of Republic Act No. 11038 or the Expanded National Integrated Protected Areas System (ENIPAS) Act of 2018 amending Republic Act No. 7586 also known as NIPAS Act of 1992. Management approach was based MOU of ZAMPAN, Locally managed MPA by MENRO and MOBPLS-

DENR/PAMB under coordination of multi-sectoral management body with participation of MOBPLS-DENR/PAMB, Zambales MPA Networks (ZAMPAN), Locally- Managed MPA in 2015 (SCREMP), Taclobo MPA, Bani MPA, Panglit MPA and San Salvador MPA. As documented by SAP, 120 ha of coral reefs was managed in 2008 and ?? in 2021.

Main reforms, laws and adopted plans in place to manage the site include: Updating of Protected Area Management Plan of MOBPLS; Integrated Coastal Resource Management Plan (ICRMP); and Coastal Resource Management Plan of LGU Masinloc. This includes the establishment of various management bodies, and development and approval of management plans

Data or monitoring available at site includes: BAMS on Seagrass, Coral Reef and Mangrove, Water Quality Monitoring, Environmental Monitoring and Patrolling, Coral Bleaching watch and Crown-of-Thorns Monitoring, LAWIN on Conservation Area, and BMS on identified sites.

- Batangas Bay, Maricaban Strait

Mabini is the first coastal municipality in the province of Batangas to issue an ordinance enacting a coastal resource management code through Resolution No. 88 – 2015. A Coastal Resource Management Council was established under the CRM Code of Mabini. There are four locally established MPAs in Mabini and two in Tingloy. Community based enforcement teams (Bantay Dagat) were created and capacitated in Mabini and Tingloy. The reef area managed was 80 ha in 2008 and ?? in 2021.

Numerous conservation initiatives have been implemented in the area by the LGUs with significant financial, technical, and capacity building support from NGOs such as the World Wildlife Fund (WWF), Conservation International (CI), and Haribon Foundation. These initiatives include support for capacity development for community-based coastal and marine law enforcement ranging from training and deputization of Bantay Dagat, organizational development and strengthening, and provision of legal and logistical support (patrol boats, equipment, field stations, etc.) and creation of a Bantay Dagat Network with other coastal municipalities along Balayan and Batangas Bays; policy development, e.g., Coastal Resource Management Code of Mabini; establishment and management of MPAs as well as conducting scientific studies (e.g., larval dispersal studies to identify sources and sinks) in designing MPA Networks; sustainable financing in the form of Conservation Fees which has been able to raise up to Php 11M per year.

Management Effectiveness Assessment Tool (MEAT) has been used to monitor biophysical as well as socio-economic status of the MPAs in Mabini and Tingloy. Regular monitoring of illegal and destructive fishing practices has been conducted by local Bantay Dagat teams from Mabini and Tingloy to address threats to coral reefs

- El Nido, Palawan

El Nido-Taytay Managed Resource Protected Area (ENTMRPA) was established under the NIPAS Act (RA 7586) framework pursuant to Presidential Proclamation No. 32 dated October, 1998 covering an area of 90,321 hectares of both marine and terrestrial areas. ENTMRPA has an existing General Management Plan (GMP), now called Protected Area Management Plan (PAMP), which was last updated in 2017. It's ten-year PAMP, 2020 to 2029, it still on further revision to comply with other requirements (i.e., Logical Framework and finalization of management zones). PAMPs lay-out the detailed management activities to be undertaken in the protected area in the ten-year period to be reviewed after 5 years. It provides direction in managing the resources of the protected area and adjacent areas.

ENTMRPA is governed by the PAMB, a multi-sectoral body headed by the Regional Executive Director of DENR as Chairperson. The Protected Area Management Office (PAMO) headed by the Protected Area Superintendent (PASu) implements the policies approved by the PAMB and other relevant laws and regulations for the PAs under NIPAS. There are nine identified management focuses that serve as the framework of the management plan of MSPLS. These focuses are the following: Biodiversity Conservation and Ecosystem Management, Partnership and Resiliency-Building, Improved and Sustainable Financing,

Strengthened Environmental Law Enforcement, Responsible and Sustainable Tourism and Strengthened Protected Area Management and Governance.

The PA is currently being manned by two permanent personnel including the Protected Area Superintendent (PASu), and 37 contractual employees; Capacitation of PAMB members and PA management staff including park rangers were undertaken in the past funded under the GAA.

The enforcement mechanisms included:

- Regular seaborne patrol by park rangers and FEOs; Partnership with partner People’s Organizations with existing Conservation Agreement with the PAMB in monitoring illegal activities in the waters within their locality;
- Collaboration with other partner law enforcement bodies (BFARMCs, LGUs, PCSD, PCG, AFP)
- IEC as soft approach in law enforcement were also being conducted in partnership with CENRO Taytay, LGUs, PCSD, NGOs (MFI), other government agencies and private sector.

Data or monitoring available at site includes the Biodiversity Monitoring System (BMS) that is conducted bi-annually. It monitors biodiversity assessment and trends in the establishment monitoring stations. Focus Group Discussions are also being used to assess the rate of utilization of natural resources by the two (2) established Community Monitoring Groups (CMGs) as well as the presence of indicator species and illegal activities within their locality. Park rangers are also required to maintain a field diary to record their wildlife sightings and unlawful activities monitored. These are being consolidated to form part of the BMS data. Recently, seagrass assessment using transect method were also monitored annually in three established sites including one Biodiversity Assessment and Monitoring System (BAMS) site was also established in the PA in 2018-2019 subject for future monitoring and conduct of Management Effectiveness Assessment (METT/MEAT).

3/ Seagrass

SAP Targets and Summary of Achievements

The Strategic Action Programme targets three seagrass sites and would result in an increase in seagrass area under management by 6,920 ha. The three sites are located at: Cape Bolinao, Puerto Galera and Honda Bay. One seagrass site, Cape Bolinao is a Fisheries Refugia project site. Table 3 presents the summary of SAP targets and activities and achievement in implementing the SAP at 2 seagrass sites (Cape Bolinao and Looc-Lubang).

Table 3. Regional SAP target for seagrass and achievements (ha) during 2008-2021 in the Philippines

Regional Output	Cape Bolinao	Puerto Galera	Honda Bay	Looc-Lubang
1.3.1 Twenty seagrass areas totaling 26,036 ha under sustainable management with supporting laws and regulations	60			?
1.3.2 Amended management plans for 7 existing MPAs with significant seagrass areas, to include specific seagrass-related management actions and policy, legal and institutional reforms				
1.3.3 Designation of 7 new Marine Protected Areas focusing on seagrass areas identified in the prioritized listings of the SCS Project	60			?

1.3.4 Established mechanism for monitoring seagrass habitat management	x			x
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Descriptions

1.3.1 Twenty seagrass areas totaling 26,036 ha under sustainable management with supporting laws and regulations

[Name, area (ha) of every site under sustainable management, taking account that management regulations exist & laws and regulations enacted for seagrass management]

- Bolinao

Bolinao is a member LGU of BBBIDA MPA Network, covering 6 municipalities: Bani, Bolinao, Burgos, Infanta, Dasol and Agno. A MOA was signed on December 21, 2018 but no management plan was approved for their MPAs. Per CRM Presentation of LGU, the latter provided the logistics, e.g., boat and gasoline which is being used in patrolling and monitoring. Honoraria is given to Bantay Dagat members. The municipality employs the soft-enforcement approach where violators are called to the Office of the CRM or Brgy Council for orientation and signing of promissory notes (in general, not only to seagrass areas). Per CRM presentation of LGU, a PO was organized to implement sea cucumber ranching project in the seagrass area.

- Looc Lubang

Community based /Joint Management has been an approach in site management. Some activities were conducted, including: Law Enforcement Training, LMAA+S Secretariat Training, community consultation, Installation of Billboards, Ugnayan sa Barangay, Installation of Marker buoys, Social Media. CRM Plan was developed in June 2013 using participatory approach in the planning and management.

1.3.2 Amended management plans for 7 existing MPAs with significant seagrass areas, to include specific seagrass-related management actions and policy, legal and institutional reforms

Not applicable

1.3.3 Designation of 7 new Marine Protected Areas focusing on seagrass areas identified in the prioritized listings of the SCS Project

[Name, area (ha) of newly established MPAs focused on seagrass management, considering year of establishment, entity of adoption, category ...]

- Bolinao

Municipal Ordinance No. 2007-02 established a 60 has seagrass reserve between Binabalian and Goyoden

- Looc Lubang

Looc Bay Managed Access Area + Sanctuary was declared by Mun. Ordinance No. 82 March 09, 2020. Cabra Marine Park Management Board, Lubang-Looc MPA Board, Bahurang Vigo Managed Access Area and Marine Sanctuary Board were established.

1.3.4 Established mechanism for monitoring seagrass habitat management

[Status of mechanism established for monitoring seagrass management effectiveness and stress reduction, including indicators, number of stations, frequency, period and information on habitat improvement, if any at each site]

- Bolinao

Per CRM presentation of LGU, a Municipal Monitoring Group was organized to assess the MPAs status annually. (However, per report of LGU MPAN Focal person during the quarterly meeting of BBBIDA MPAN, monitoring was merely patrolling and not the conduct of seagrass assessment.)

- Looc Lubang

Monitoring was conducted yearly at 9 stations, using MFRL, FishMaRK/MEAT and Looc Fish App

4/ Wetlands

SAP Targets and Summary of Achievements

The Strategic Action Programme implementation would result in the adoption and implementation of management plan for 2 estuaries: Malampaya Sound (24,500 ha) and Pansipit River Estuary (15 ha); and 1 tidal flat at Manila Bay (30,000 ha). Among them, Pansipit Estuary and Manila Bay had no existing management plan and Malampaya Sound had existing in 2008 but out-dated plans requiring amendment and up-dating. The SAP includes the declaration of wetland areas with protection status and needed management reforms, and adoption of a regional monitoring scheme for national implementation.

Table 4. Summary of the SAP targets for coastal wetlands and achievements (ha) during 2008-2021 in the Philippines

Regional outputs	Malampaya Sound Estuary	Maragondon River	Manila Bay Tidal Flat	Total
1.4.1 Integrated management plans developed and under implementation for at least 2 lagoons (21,818 ha), 10 estuaries (639,418 ha), 5 tidal flats (96,903 ha), 1 peat swamp (45,700 ha) and 1 non-peat swamp (9,808 ha)	111, 339	37,500	3,667	
1.4.2 Declaration of wetland areas with protection status (i.e. non-hunting area, nature reserves, protected areas, Ramsar Sites)		37,500	3,667	
1.4.3 Adoption of a regional monitoring scheme and its national implementation	X	X	X	

Descriptions

1.4.1 Integrated management plans developed and under implementation for at least 2 lagoons (21,818 ha), 10 estuaries (639,418 ha), 5 tidal flats (96,903 ha), 1 peat swamp (45,700 ha) and 1 non-peat swamp (9,808 ha)

- Malampaya Sound

The establishment of the Malampaya Sound Protected Landscape and Seascape (MSPLS) under the NIPAS Act (RA 7586) framework pursuant to Presidential Proclamation No. 324 dated July 12, 2000. It covers an

area of 200,115 hectares: 88,115 hectares of terrestrial and 111,339 hectares of marine environments. MSPLS has an existing General Management Plan (GMP), now called Protected Area Management Plan (PAMP), which was last updated in 2012. The MSPLS PAMP covers a period of ten years (2019-2029) detailing the activities and the direction in managing the resources of Malampaya Sound and adjacent areas, which will be reviewed after five years. It is still also on further revision to comply with other requirements (i.e., Logical Framework and finalization of management zones).

- Maragondon River Estuary

Main reforms, laws and adopted plans in place to manage the site include the Ternate Marine Park Management Plan CY 2020-2022 (SB Resolution No. 88 Series of 2019); Mts. Palay-Palay Mataas na Gulod Protected Landscape (MPPMNGPL) Management Plan 2017-2021 (PAMB Resolution No. 06-S-2017); By virtue of Ordinance No. 2 S-2011 by the Municipality of Ternate, the Maragondon River mouth (35,700 ha) has been declared as an MPA, with provisions that the whole mangrove forest is a protected area, making it illegal to convert it into fish ponds; and Cavite Sustainable Development Strategy (CSDS).

- Manila Bay Tidal Flat

Several laws are being implemented (P.D. 984, DAO 35, R.A. 6969, R.A.2003, P.D. 979) for the protection and conservation of the bay. However, with the increasing complexity of the problem there is a need for multi-agency and cross-sectoral management program. The multi-sectoral Manila Bay Coordinating Committee adopted the Operational Plan for the Manila Bay Coastal Strategy, the Manila Bay Oil Spill Contingency Plan, the Coastal Use Zoning Plan of Bataan, and the Integrated Environmental Monitoring Program (IEMP). The Manila Bay Coastal Strategy engages stakeholders as partners in: raising public awareness and participation, protecting human welfare, ecological, historical, cultural and economic features, mitigating environmental risks, implementing effective policies and environment management and governance, and developing areas and opportunities in a sustainable manner

1.4.2 Declaration of wetland areas with protection status (i.e., non-hunting area, nature reserves, protected areas, Ramsar Sites)

- Malampaya Sound

The establishment of the Malampaya Sound Protected Landscape and Seascape (MSPLS) under the NIPAS Act (RA 7586) framework pursuant to Presidential Proclamation No. 324 dated July 12, 2000. It covers an area of 200,115 hectares: 88,115 hectares of terrestrial and 111,339 hectares of marine environments. MSPLS had an existing General Management Plan (GMP), now called Protected Area Management Plan (PAMP), which was last updated in 2012.

- Maragondon River Estuary

By virtue of Ordinance No. 2 S-2011 by the Municipality of Ternate, the Maragondon River mouth (35,700 ha) was declared as an MPA, with provisions that the whole mangrove forest is a protected area, making it illegal to convert it into fish ponds; and Cavite Sustainable Development Strategy (CSDS).

- Manila Bay Tidal Flat

There existed some areas under protection, including: Balanga Wetland and Nature Park (BWNP); Sasmuan Pampanga Coastal Wetlands (SPCW), covering an area of 3,667.31 hectares of coastal waters interconnected with mangroves, mudflats, and river ecosystems that offers a range of ecosystem services at local and regional levels as well as Sasmuan Bangkung Malapad Critical Habitat and Ecotourism Area (SBMCHEA)

1.4.3 Monitoring scheme for wetland management

[Name and area (ha) of wetland sites where mechanism established for monitoring wetland management effectiveness and stress reduction: indicators, frequency, number of stations, period]

- Malampaya Sound

In terms of data or monitoring available at the site, habitat monitoring is conducted bi-annually through a Biodiversity Monitoring System (BMS), surveying the biodiversity and trends in established monitoring stations – five sites in terrestrial and three sites in marine areas. Park rangers are also required to maintain a field diary to record the wildlife sightings and unlawful activities monitored. These are being consolidated to form part of the BMS data. Seagrass assessments using the transect method were also recently included in the BMS reports. One Biodiversity Assessment and Monitoring System (BAMS) site was also established in the PA in 2018-2019 subject for future monitoring. Focus Group Discussions (FGDs) are also conducted to assess the rate of utilization of natural resources by two (2) established Community Monitoring Groups (CMGs) as well as the presence of indicator species and illegal activities within their locality. Counting of Irrawaddy Dolphins is also being conducted in the Inner Sound.

- Maragondon River Estuary

The Ternate Marine Park has been planned to undergo biodiversity monitoring through BMS to 4 stations twice a year, and BAMS every 3 years.

- Manila Bay

The Manila Bay Five-year IEMP includes: pollution and habitat/resource monitoring, focusing initially on the bay area, gradually expanding to cover the tributaries and watershed area; engaging 7 national government agencies including 25 bureaus, attached agencies and regional offices, 11 LGUs, 1 university, and 2 private sector/NGO. It uses PEMSEA's Integrated Information Management System for Coastal and Marine Environment (IIMS) and cost around PHP6.5 million/year (around \$130,000).

REFERENCE

[Please list documents from which the information and data were used for this evaluation]