

#### Indian Ocean – South-East Asian Marine Turtle Memorandum of Understanding

#### Philippines

#### **GENERAL INFORMATION**

#### Agency or institution primarily responsible for the preparation of this report:

Wildlife Resources Division (WRD) Biodiversity Management Bureau (BMB) Department of Environment and Natural Resources (DENR) Ninoy Aquino Parks and Wildlife Center (NAPWC) Quezon Avenue, Diliman, Quezon City Philippines 1101

#### Other agencies, institutions, or NGOs that have provided input:

#### A. Other government agency:

- 1. Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR)
- 2. Department of Environment and Natural Resources (DENR) Regional and Field Offices
- 3. Department of Foreign Affairs-Ocean Concerns Office (DFA-OCO)
- 4. Department of Education-San Juan, Batangas
- 5. Department of Education-Calaca, Batangas
- B. Local Government Unit (LGU):
- 1. Provincial Government of Bataan/Municipalities of Morong and Bagac
- 2. Provincial Government of Zambales
- 3. Hinatuan, Surigao del Sur
- 4. Davao City/Task Force Pawikan-Davao
- 5. Bagac, Bataan (Barangays) Villages of Quinawan, Paysawan, Saysain, Pag-asa, Banawang, and Ibaba)
- 6. Magsaysay, Misamis Oriental/Task Force Pawikan-Magsaysay, Misamis Oriental
- 7. Island Garden City of Samal (IGaCoS), Davao del Norte
- 8. San Juan, Batangas
- 9. Lian, Batangas
- 10. Carmen, Agusan del Norte
- 11. Romblon, Romblon
- 12. Calaca, Batangas
- 13. Hinoba-an, Negros Occidental
- 14. Sta, Maria, Romblon
- 15. San Agustin, Romblon
- 16. Naic, Cavite
- C. Non-Government Organization:
- 1. World Wildlife Fund-Philippines (WWF-Phil.)
- 2. Conservation International-Philippines (CI-P)
- 3. Marine Wildlife Watch of the Philippines (MWWP)
- 4. Ugnayan ng Nagkakaisang Lakas at Diwa (UNLAD)-Philippine Rural Reconstruction Movement-Bataan Chapter (PRRM)
- 5. Environmental Protection for Asia Foundation, Inc. (EPAFI)
- 6. Center for Empowerment & Resource Development (CERD)
- 7. Sentro para sa Ikauunlad ng Katutubong Agham at Teknolohiya, Inc. (SIKAT, Inc.)

- 8. Shoreline Kabalikat sa Kaunlaran, Inc. (SKKI) of Naic, Cavite
- 9. Conservation and Appreciation of Philippine Ecosystems Foundation, Inc. (CAPE) of Antique
- 10. Far East Maritime Foundation, Inc. (FEMFI) of Naic, Cavite
- 11. International Maritime and Offshore Safety Training Institute (IMOSTI) of Naic, Cavite
- 12. Maximo T. Kalaw Institute of Sustainable Development (MTKISD)

Private corporation:

- 1. Davao Light and Power Company, Inc. (DLPC)
- 2. Montemar Beach Club, Inc. (MBCI)
- 3. Bacnotan Industrial Park Corporation (BIPC), Calaca, Batangas
- 4. Tropical Beachfront Development Corp. (Calamai Tropica)
- 5. Tropical Garden Resort (TGR) of Naic, Cavite
- 6. Sabrina Fair Philippines, Inc. (SFPI) of Naic, Cavite

#### Academe:

- 1. Xavier University, Cagayan de Oro
- 2. De La Salle University (DLSU)-Taft, Manila
- 3. Cavite State University-Naic, Cavite

People's Organization (PO):

- 1. Bantay Pawikan Inc. of Morong, Bataan
- 2. Bagac Sagip Pawikan of Bagac, Bataan
- 3. Bagac Public Market Vendors Association (BPMVA), Bagac, Bataan
- 4. Community & Environment Management Initiative Inc. (CEMII), Bagac, Bataan

5. Pamamalakaya at Wastong Ingat sa Karagatan ng Agpanabat na Nagkakaisa, Inc. (PAWIKAN, Inc.) of Agpanabat, Romblon, Romblon

- 6. Sagip Ekolohiya ng mga Mangingisda ng Bonga at Agrikultura, Inc. (SEMBA) of Bonga, Sta. Maria, Romblon
- 7. Samahan ng mga Mangingisda ng Carmen, Inc. (SAMACA, Inc.) of San Agustin, Romblon

#### **Designated Focal Point:**

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#### **OBJECTIVE I. REDUCE DIRECT AND INDIRECT CAUSES OF MARINE TURTLE MORTALITY**

#### 1.1 Introduction to marine turtle populations and habitats, challenges and conservation efforts. [INF]

Five of the seven species of marine turtles in the world are present in the Philippines. Four of the 5 species were found to nest in Philippine coastal areas. These are the (1.) green turtle (Chelonia mydas), (2.) hawksbill turtle (Eretmochelys imbricata), (3.) olive ridley turtle (Lepidochelys olivacea), and (4.) leatherback turtle (Dermochelys coriacea). The (5.) loggerhead turtles (Caretta caretta) forage in Philippine waters.

The hawksbill turtle is listed as critically endangered in DENR Administrative Order (DAO) No. 2004-15 series of 2004. The green, olive ridley, loggerhead and leatherback turtles are categorized as endangered in the same DAO.

The Turtle Islands Wildlife Sanctuary (TIWS) in Tawi-Tawi is considered as the most significant nesting site of green turtles in the Philippines with an average of 7,862 nests (annual range of 3,852 - 12,983 nests) per year from 1985 to 2013.

The TIWS was established as a Protected Area (PA) by virtue of Presidential Proclamation No. 171 dated August 26, 1999. The Turtle Islands-Philippines (or TIWS) and Turtle Islands-Malaysia was established as the Turtle Islands Heritage Protected Area (TIHPA) through a Memorandum of Agreement (MOA) signed on May 31, 1996 by and between the former Secretary of the Philippines' Department of Foreign Affairs, Domingo Siazon and former Malaysian Foreign Minister Abdullah Ahmad Badawi. The Turtle Islands-Philippines is composed of 6 islands (Boan, Baguan, Taganak, Lihiman, Langaan, and Great Bakkungan) while the Turtle Islands-Malaysia is composed of 3 islands (Selingaan, Gulisaan and Little Bakunngan). The TIHPA is the first transborder protected area on marine turtles in the world. It is one of the few major green turtle (Chelonia mydas) rookeries in the ASEAN region and is one of the ten major nesting areas of marine turtles in the world. The protection of this area is a commitment of the Philippine Government to help preserve and save the marine turtles from extinction in the region.

Hawksbill turtles were found to nest along the coasts of Misamis Oriental, Davao del Sur, Davao del Norte and Surigao del Sur while the olive ridleys nest in metallic gray sandy beaches of La Union, Bataan, Batangas and Zambales.

The 1st confirmed nesting of a leatherback turtle was recorded at Brgy. (Village) Rawis in Legazpi City, Albay on 14 July 2013. A leatherback was also reported to have laid eggs at Camp Picardo Beach in Dolores, Eastern Samar on 05 August 2013, however the DENR failed to find the eggs, which were possibly poached on the same night of nesting.

The DENR continues to establish partnership on marine turtle conservation and protection with LGUs, NGOs, POs, academe and other interested agencies. To date, twenty MOAs/MoUs have been approved from 2001 to 2012 with 17 LGUs, 12 NGOs, 7 POs, 6 private corporations/institutions and 3 academe as partners. These partners were trained on marine turtle conservation procedures.

Information and education campaign through lectures in coastal barangays and schools are undertaken simultaneous with the conduct of habitat survey on marine turtles.

Marine turtle festival is celebrated in 5 of the LGU-partners (Agpanabat in Romblon, Romblon; Nagbalayong in Morong, Bataan; Bagac, Bataan; Labac in Naic, Cavite; and La Paz in San Narciso, Zambales.

# **1.2.1** Describe any protocol or approaches practiced in your country, which you consider exemplary, for minimising threats to marine turtle populations and their habitats, which may be suitable for adaptation and adoption elsewhere. [BPR]

1) Establish a Community-based Marine Turtle Conservation Agreement among stakeholders in a particular area. Key stakeholders are the National Government, Local Government, NGO - s and the community.

Key provisions in the Agreement are:

a) Information Education Awareness;

b) Training on sea turtle conservation to potential members to patrol the coastal area that include community organizing; and

c) Provision of funds (in kind and/or money) for operation.

Some activities identified must be done regularly or continuously. Institutionalizing the activities of the agreement will take at least 3 years to materialize.

2) Integrated Coastal Development Program (ICDP) for a comprehensive conservation and protection program

In 2006, Executive Order No. 533 was signed declaring the Integrated Coastal Management (ICM) as the national strategy to the sustainable development of the country's coastal and marine resources.

ICM requires consideration of the impact that a variety of human activity may have at the ecosystems. The strategy necessitates in coastal governance decision-making structures that consider both the conservation and protection of ecosystems, while at the same time providing opportunities for creating wealth in coastal-related economies and communities. The ultimate purpose of ICM is to increase the efficiency and effectiveness of coastal governance in terms of its ability to achieve the sustainable use of the coastal resources and of the environmental services rendered by the ecosystems.

Executive Order No. 533 mandates DENR, along with other agencies of the government, to develop a National Integrated Coastal Management Program (NICMP) that shall foster participation, ecological integrity, improved quality of life, and integret environment of the coastal wealth.

The NICMP drew up from earlier initiatives that were addressed to overcome conflicting sectoral policies and fractional institutional arrangements that have characterized coastal governance. Concerns on the protection of the marine environment and the reduction of conflicts from resource uses were influenced by the National Marine Policy (1994), while some ICM principles, strategies, priority actions and targets were adopted from those proposed by the Framework for Sustainable Philippine Archipelagic Development (ArcDev, 2004), the Coastal and Marine Management Sectoral Framework Plans (2007) and from the Coral Triangle Initiative (CTI, 2009), all of which are within the parameters of the Millennium Development Goals (MDG). The strategic components of the program incorporated critical concerns for biodiversity conservation enunciated by the Verde Framework (EO 578), and employed in part some prevailing ICM concepts promoted by the Partnership for the Environmental Management of the Seas of East Asia (PEMSEA).

The Philippine Government was able to acquire a combination of grant and loan from GEF and Asian Development Bank to fund the development and establishment of the National Integrated Coastal Management Program. The process of establishing and mainstreaming the implementation of the NICMP commenced on 2007 and will end on 2013.

3) Institutionalized DENR data gathering system. The DENR has offices per region and satellite offices per province and some in key municipalities throughout the country. With this set-up, DENR institutionalized data retrieval of marine turtle from fishermen and concerned citizens. Tagging, Information Education Awareness and monitoring of illegally acquired marine turtles and by-products are activities continuously done by the personnel of these regional offices. All information is sent to the Pawikan Conservation Project, PAWB-DENR. Today, a lot of accidentally captured marine turtles are voluntarily given by fishermen and concerned citizens to the DENR. In turn, the DENR gives baseball caps, t-shirts and certificates of appreciation to these citizens as a token of their contribution to marine turtle conservation.

The best practice approaches the Philippines has adapted and/or adopted with success for immediate and practical purposes is a community-based marine turtle conservation program. The second approach which is a more comprehensive approach will take more time and effort since it will cover larger areas and more residents should be involved.

### **1.3.1** Describe any socio-economic studies or activities that have been conducted among communities that interact with marine turtles and their habitats. [BPR, INF]

An in-depth social and institutional assessment for the Turtle Islands Wildlife Sanctuary was done by WWF Philippines in 1998. For information, before July 2001, 60 % of the marine turtle eggs in the Turtle Islands are allowed to be legally collected by residents of Turtle Islands through a permit system. One household can avail of only one permit per year and can apply again after 3 years. And only one island was declared as a marine turtle sanctuary (that produces 50% of the total turtle egg production in Turtle Islands).

The key results of the study were:

Percentage of Income form Turtle Egg Collection to Total Income is only 23% and the Number of Households affected in a year is only 11%. This proves that turtle egg collection is not an important factor in the income of the community but from fishery resources which is 63%.

Before, the implementation of an Agreement among the Local Government, DENR and an NGO in the Province of Bataan, only few families engage in turtle egg collection since about 80-120 nestings per nesting season occur in the area. The Local Government gave soft loans to members of the Bantay Pawikan (Marine Turtle Guard) and about P 200 thousand to operate the marine turtle conservation activities. However, Local Government contributions stopped due to political issues against the Bantay Pawikan.

### **1.3.2** Which of these adverse economic incentives are underlying threats to marine turtles in your country? **[TSH]**

 $\square$  High prices earned from turtle products relative to other commodities

#### Lack of affordable alternatives to turtle products

#### Ease of access to the turtle resource (eg. by virtue of proximity or ease of land/water access)

□ Low cost of land near nesting beaches

□ Low penalties against illegal harvesting

└ Other1:

□ Other2:

□ Other3:

☐ None of the above or Not Applicable

Particularly in the Turtle Islands Wildlife Sanctuary, livelihood alternatives must be given to the community to reduce threats to marine turtles. Since fishery resources are the best resource in the area, livelihood alternatives must be geared toward this resource. In 2010, DENR and the Protected Area Management Board of Turtle Islands Wildlife Sanctuary (TIWS) agreed that development of ecotourism is one of the potential livelihood options for the community, considering the limited capacity of Sabah Turtle Islands for tourists. However, development of ecotourism will need a long process to be implemented in the area.

#### 1.3.3 Has your country has taken any measures to try to correct these adverse economic incentives? [BPR]

■ YES 「 NO 「 NOT APPLICABLE (no adverse economic incentives exist)

On-going consultations with the Local Government and community in Turtle Islands.

Aside from UNEP funding, the Bantay Pawikan in Morong, Bataan, is sourcing funds from other facilities, NGOs and/or institutions. In 2005, a grant was given to the Bantay Pawikan to set up a new livelihood project called "Lambaklad." This project utilizes fishery resources in their area.

**1.4.1** Indicate, and describe in more detail, the main fisheries occurring in the waters of your country, as well as any high seas fisheries in which flag vessels of your country participate, that could possibly interact with marine turtles. **[INF]** 

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Trawl fishing is banned within the municipal waters throughout the country. However, trawl fishing still occurs in areas where there is lack of implementation of the law. One exception is the province of Palawan which has a high regard for conservation and strictly implements the law.

Shrimp and fish trawls are operated in major fishing grounds, such as Lingayen Gulf, Manila Bay, Ragay Gulf, Visayan Sea, Samar Sea, Guimaras Strait and a portion of Palawan waters. There is no available record of incidental catch of sea turtles.

#### b) Set gill nets: ■ YES 「 NO

Set gillnets are mostly used by coastal fishermen in shallow water, but information on sea turtle interactions is limited. Fishermen confirm that some turtles are caught by set gillnets.

However, mainland Chinese target sea turtles in southern Palawan, reports of which have been published in major newspapers.

#### 

These devices are used by many fishers, particularly in Sulu Sea and Visayan Sea. Although many FADs made from coconut fronds and palm leaves are used, there is no available record of any entanglement of sea turtles in FADs.

#### d) Purse seine (with or without FADs): ■ YES □ NO

These devices are used (both with and without FADs) in Sulu Sea, Visayan Sea, and in Luzon waters; however there are no records of interactions with sea turtles.

#### e) Longline (shallow or deepset): ■ YES $\sqcap$ NO

Bottom set longlines have some incidence of interaction with sea turtles where they are set in shallow waters.

#### *f) Driftnet:* ■ YES $\sqcap$ NO

Driftnets, being a type of gill net, show some interaction with sea turtles. They are mainly operated by coastal fishermen.

#### g) Other1:

These types of nets have very large mesh nets which are used by Chinese fishers who illegally enter Philippine waters. They usually operate near Palawan and enter Sulu Sea, until Tubbataha, Palawan.

Also: Set nets (Otashi-ami) are installed along the coastal areas of Zambales, Bataan, Antique, Aklan, Zamboanga de Norte provinces, and are known to interact with sea turtles.

#### h) Other2:

Found in Manila Bay and in Luzon facing China Sea, in some areas of Palawan, Visayas and Mindanao. The gear is set in shallow coastal areas to guide migrating fish towards the enclosure, hence sea turtles are also impounded, but released alive.

#### $\square$ None of the above

**1.4.2** Please indicate the relative level of fishing effort and perceived impact of each of the above fisheries on marine turtles (e.g. in terms of by-catch). **[TSH]** 

#### a) Shrimp trawls

Fishing effort:		
□ RELATIVELY HIGH □ MODERATE ■ RELATIVELY LOW □ NONE □ UNKNOWN		
Perceived Impact:		
□ RELATIVELY HIGH ■ MODERATE □ RELATIVELY LOW □ NONE □ UNKNOWN		
Source: Source: Reports from DENR Regional and Field Offices		
b) Set gill nets		
Fishing effort:		
□ RELATIVELY HIGH ■ MODERATE □ RELATIVELY LOW □ NONE □ UNKNOWN		

**Perceived Impact:** 

□ RELATIVELY HIGH ■ MODERATE □ RELATIVELY LOW □ NONE □ UNKNOWN

Source: In Bataan, juvenile marine turtles are attracted to set gill nets.

NB: Set gill nets operated by foreign fishers with relatively low effort are perceived to have relatively high impact.

Source: Reports from DENR Regional and Field Offices

#### c) Anchored Fish Aggregating Devices (FADs)

#### Fishing effort:

□ RELATIVELY HIGH
 ■ MODERATE
 □ RELATIVELY LOW
 □ NONE
 □ NONE<

Source:

#### d) Purse seine (with or without FADs)

#### Fishing effort:

□ RELATIVELY HIGH □ MODERATE □ RELATIVELY LOW ■ NONE □ UNKNOWN Perceived Impact:

□ RELATIVELY HIGH □ MODERATE □ RELATIVELY LOW ■ NONE □ UNKNOWN

Source:

#### e) Longline (shallow or deepset)

 Source: Survey reports by the Bureau of Fisheries and Aquatic Resources, Department of Agriculture

#### f) Driftnet

#### **Fishing effort:**

 □ RELATIVELY HIGH
 □ MODERATE
 □ RELATIVELY LOW
 □ NONE
 □ UNKNOWN

 Perceived Impact:
 □ RELATIVELY LOW
 □ NONE
 □ UNKNOWN

Source: Source: Reports from DENR Regional and Field Offices

#### g) Other1 (from 1.4.1): Set net (Otashi - Ami) - Lambaklad

#### **Fishing effort:**

□ RELATIVELY HIGH □ MODERATE ■ RELATIVELY LOW □ NONE □ UNKNOWN
Perceived Impact:
□ RELATIVELY HIGH □ MODERATE ■ RELATIVELY LOW □ NONE □ UNKNOWN

Source: NB: All turtles caught are alive.

Source: Reports from DENR Regional and Field Offices

#### h) Other2 (from 1.4.1): Fish corrals (made of bamboo)

#### Fishing effort:

□ RELATIVELY HIGH □ MODERATE ■ RELATIVELY LOW □ NONE □ UNKNOWN
Perceived Impact:
□ RELATIVELY HIGH □ MODERATE ■ RELATIVELY LOW □ NONE □ UNKNOWN

Source: Reports from DENR Regional and Field Offices. All turtles are alive.

# 1.4.3 Describe any illegal fishing that is known to occur in or around the waters of your country that may impact marine turtles. Describe the measures being taken to deal with this problem and any difficulties encountered in this regard. [TSH]

There is illegal fishing/poaching from mainland China, targetting sea turtles in southern Palawan. Boats and catch have been confiscated, but interventions have been made by authorities to have them released.

Although the use of explosive (dynamite) and obnoxious devices is banned, many fishers still resort to these devices. To address this issue, the local government in collaboration with the Philippine Coast Guard and the Bureau of Fisheries and Aquatic Resources established "Bantay Dagat" (Guard Sea) in many municipalities to implement the law. However, due to lack of logistics and manpower in some areas, the Bantay Dagat is not effective. Also there is a lack of political will by some Local Government Officials to implement the law.

### 1.4.4 Which of the following methods are used by your country to minimise incidental capture/mortality of marine turtles in fishing activities? [IND]

a) **Appropriate handling** of incidentally caught turtles (e.g. resuscitation or release by fishers using equipment such as de-hooking, line cutting tools and scoop nets)

**YES** INO INOT APPLICABLE

In set net (Otashi-Ami) or fish corral, fishermen either drive sea turtles over the net or open some parts of the frame to let them escape.

Other release methods include scoop nets or by hand.

b) **Devices that allow the escape of marine turtles** (e.g. turtle excluder devices (TEDs) or other measures that are comparable in effectiveness)

c) Measures to avoid encirclement of marine turtles in purse seine fisheries

d) Appropriate combinations of hook design, type of bait, depth, gear specifications and fishing practices

**YES** INO INOT APPLICABLE

Philippines has experimented on the use of circle hooks. A Fisheries Administrative Order has been drafted on the use of Circle Hooks in the Philippines.

e) Monitoring and recovery of fish aggregating devices (FADs)

#### f) Net retention and recycling schemes

**YES** INO INOT APPLICABLE

g) Spatial and temporal control of fishing (e.g. seasonal closures of fishing activities)

**YES** INO INOT APPLICABLE

Fish sanctuaries, RA 8550, Fisheries Code provides for the banning of mechanized fishing vessels, 3 gross tons and above from operating.

Closure of active fishing gear in municipal waters (0-15 km from shore), including boats more than 3 gross tons.

Closure of fishing grounds for spawning of some fish species (eg sardines).

#### h) Effort management control

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No effort management control in relation to sea turtles.

□ Other (list and explain):

☐ None of the above

**1.4.5** Which of the following programmes has your country developed - in consultation with the fishing industry and fisheries management organisations - to promote implementation of measures to minimise incidental capture and mortality of turtles in national waters and in the high seas? **[IND]** 

#### **Onboard observer programmes**

**YES** INO INOT APPLICABLE

This programme includes promotion of circle hooks in longline fisheries; and provides for public awareness in set net operations for release of incidentally caught sea turtles.

In 2007-2008, WWF Philippines in collaboration with DA-BFAR conducted a project in Davao Gulf, Mindanao.

The Philippines has a Fisheries Observer Program part of which is by-catch monitoring of cetaceans and marine turtles. In September 2009, two observers were deployed in the Philippine Exclusive Economic Zone (EEZ) and from August to September 2010, one observer was deployed in the high seas.

#### **Vessel monitoring systems**

A plan for VMS is under preparation.

**Inspections** (i.e. at sea, in port, at landing sites)

■ YES 「 NO 「 NOT APPLICABLE

There is policy in place to ensure the use of port facilities for the disposal of ship-borne waste but it lacks monitoring compliance. There are now discussions on this matter within the Philippines and one of the agenda items in bilateral meetings on Maritime and Ocean Affairs: Philippines-Vietnam, Philippines-Indonesia, and Philippines-Malaysia. The Department of Foreign Affairs is the coordinating agency for these meetings.

There is inspection of fishing boats in port and landing sites conducted by maritime police and the Philippine Coast Guard.

Training programmes / workshops to educate fishers

**YES** INO INOT APPLICABLE

Examples include:

Workshop to educate tuna longline fishermen and owners on the use of circle hooks

Provision of a special permit to conduct circle hook research on two private longliners

WWF project on blue crab fisheries in the Visayas encourages ways to address issue of discarded grab gill nets.

#### Informative videos, brochures, printed guidelines etc.

#### **YES** INO INOT APPLICABLE

Provided by Pawikan (Sea Turtle) Project, Protected Area and Wildlife Bureau (c/o Mr Renato Cruz).

A new set of information materials was produced in collaboration with Conservation International, Philippines.

Other (list and explain): Turtle Excluder Device

#### **YES** INO INOT APPLICABLE

1) Initial experimental use of TED, last year but no implementation of the device. In 2009, TED was pilot-tested in western Philippines by the Bureau of Fisheries and Aquatic Resources.

2) As part of the Philippine-Sabah TIHPA activities, in 2009, TED was introduced to Sabah trawl fishers and currently some companies have incorporated the gadget in their fishing operations. This undertaking was done in collaboration with the Sabah Fisheries Department and Marine Research Foundation and funded by Conservation International Philippines.

3) MoA among 6 government agencies with WWF for on-going environmental enforcement crusade to build and enhance capacity to enforce fisheries and relevant environmental laws in national waters.

#### $\square$ None of the above

### 1.4.6 Are the mitigation measures described in 1.4.4 and 1.4.5, periodically reviewed and evaluated for their efficacy? [SAP]

#### ■ YES NO UNSURE

The Bureau of Fisheries and Aquatic Resources is reviewing the ongoing experiment of J-hooks and circle hooks in private tuna longliners (February 2007).

# **1.4.7** In your country, what types of data collection, research and development have been undertaken to support the reduction of marine turtle incidental catch (while taking into consideration the impact of various mitigation measures on other species)? [SAP]

Bureau of Fisheries and Aquatic Resources:

Research on comparison between J-hook and circle hook in tuna longline (catch efficiency etc)

Data collection on incidental catch of sea turtles in various coastal gears through field surveys.

DENR Regional Offices submit tagging data that include information on the fishing device that captured the turtle.

### **1.4.8** Has your country exchanged information and provided technical assistance (formally or informally) to other Signatory States to promote the activities described in 1.4.4, 1.4.5 and 1.4.7 above? [SAP]

#### ■ YES 「 NO 「 UNSURE

Through SEAFDEC-ASEAN Sea Turtle Conservation and Management meetings, there are reports and discussions on TEDs, but reports show that implementation of this device is not so popular among the fishery sector.

From March 2007 to 2009, SEAFDEC in coordination with FAO conducted a workshop on fishery impacts on sea turtles in ASEAN region.

In January 2011, in collaboration with NOAA, a three-day workshop-meeting was conducted in Saipan primarily for sharing of green turtle information among the Philippines, Japan, Guam and Marianas Archipelago.

### 1.4.9 What legislative and practical measures has your country taken in support of UN General Assembly Resolution 46/215 concerning the moratorium on the use of large-scale driftnets? [SAP]

The Philippines is supporting the moratorium on the use of large-scale driftnets. At present, there is no company in the Philippines that uses large-scale drift nets; rather only small-scale gill nets and stationary ones.

### **1.5.1** Does your country have legislation to prohibit direct harvest and domestic trade in marine turtles, their eggs, parts and products; and to protect important turtle habitats? **[IND]**

#### **YES** INO UNSURE

Republic Act No. 9147 or the "Widlife Resources Conservation and Protection Act," approved by Congress on July 30, 2001. The Law provides for the banning of the exploitation of all threatened and endangered wildlife species and its by-products and derivatives including the marine turtles. However, turtle egg collection in the Turtle Islands is still going on since the President of the Republic of the Philippines approved a 5-year phase in-phase-out scheme in the Turtle Islands that was recommended by the DENR upon the appeal of the Municipal Government of Turtle Islands and endorsement from the Regional Governor of the Autonomous Region of Muslim Mindanao for deferment of the RA 9147 before the full implementation of the law in Turtle Islands. There are on-going consultation meetings among the stakeholders in the area on the implementation of the 5-year phase in-phase out scheme.

Other related laws are RA 8550 or Fisheries Code and National Integrated Protected Areas System (NIPAS Act).

Executive Order No. 899 was signed by the President on June 22, 2010. The EO stipulates that the Philippine Coast Guard be the lead agency of the Ad Hoc Committee to implement the Philippine Action Plan on Enforcement of Environmental Law in Turtle Islands, Tawi-Tawi and Balabac, Palawan. Currently, the Philippine Coast Guard and Philippine Marine are alternately patrolling Baguan Island, one of the islands of Turtle Islands and a vessel owned by BFAR is being used as a patrol boat by the Philippine Coast Guard to regularly patrol Balabac, Palawan.

**1.5.2** Which, among the following list, are economic uses and cultural values of marine turtles in your country? Please rate the relative prevalence / importance of each consumptive or non-consumptive use. [INF]

USES / VALUES Meat consumption RELATIVE PREVALENCE / IMPORTANCE

📕 YES 🥅 NO

□ HIGH ■ MODERATE □ LOW □ UNKNOWN

#### Egg consumption

■ YES 「 NO	☐ HIGH <b>■ MODERATE</b> ☐ LOW ☐ UNKNOWN
Shell products	
■ YES 「 NO	☐ HIGH ☐ MODERATE ■ LOW ☐ UNKNOWN
Fat consumption	
r Yes ∎ NO	☐ HIGH ☐ MODERATE ☐ LOW ☐ UNKNOWN
Traditional medicine	
■ YES 「 NO	☐ HIGH ☐ MODERATE ■ LOW ☐ UNKNOWN
Eco-tourism programmes	
■ YES 「 NO	☐ HIGH <b>■ MODERATE</b> ☐ LOW ☐ UNKNOWN
Cultural / traditional significance	
■ YES 「 NO	☐ HIGH <b>■ MODERATE</b> ☐ LOW ☐ UNKNOWN

Other

### **1.5.3** Please indicate the relative level and impact of traditional harvest on marine turtles and their eggs. **[IND, TSH]**

Level of harvest:				
☐ RELATIVELY HIGH	MODERATE	☐ RELATIVELY LOW	☐ NONE	
Impact of harvest:				
RELATIVELY HIGH	MODERATE	☐ RELATIVELY LOW		
Source of information:				

Pawikan Conservation Project, PAWB-DENR

### **1.5.4** Have any **domestic** management programmes been established to limit the levels of intentional harvest? [SAP]

#### **YES** INO IUNKNOWN

Before RA 9147 was enacted, the DENR Administrative Order No. 542, series of 1982 and DENR No. 8, series of 1982 were being used. DENR No. 8 provides that Baguan Island, one of the 6 islands of Turtle Islands be a marine turtle sanctuary. DENR AO 542 provides for the regulation of collection of turtle eggs in Turtle Islands wherein 60% of the total egg produced in the 5 collection islands be collected by the community, 30% be placed in hatcheries and 10% (in the form of money) be placed in a Foundation. Only the DENR has the right to issue permits to the residents of Turtle Islands. In this system, about 70% of the total egg produced in the Turtle Islands are conserved.

Local ordinances have been passed in some Municipalities in support of RA9147.

## **1.5.5** Describe any management agreements negotiated between your country and other States in relation to sustainable levels of traditional harvest, to ensure that such harvest does not undermine conservation efforts. [BPR]

The Turtle Island Heritage Protected Area (TIHPA), bilateral agreement between Malaysia and the Philippines. Past meetings of the Joint Management Committee, the policy-making body of the TIHPA has been discussing this matter.

The MoU on the Adoption of the Conservation Plan for the Sulu-Sulawesi Marine Ecoregion (SSME) was signed by Indonesia, Malaysia and the Philippines on February 13, 2004. Sustainable levels of traditional harvest is one of the topics to be tackled by the three countries in the near future.

The Sulu-Sulawesi Seascape Program of Conservation International which is in support of the SSME has done collaborative surveys and interviews in corridor areas within the SSME. These include the impacts on marine turtle and its habitats. There are on-going arrangements and plans with the stakeholders in these corridor areas to address the identified impacts.

**1.6.1** First, select one of the options at left to indicate whether or not your country has any of the following measures in place to minimise the mortality of eggs, hatchlings and nesting females. If yes, then estimate the relative effectiveness of these measures. [IND, SAP]

#### MEASURES

#### **RELATIVE EFFECTIVENESS**

Monitoring/protection programmes

■ YES 「 NO 「 N/A

□ EXCELLENT □ GOOD ■ LOW □ UNKNOWN

There are Local Government Units that practice in-situ

#### Education/awareness programmes

■ YES 「 NO 「 N/A

□ EXCELLENT ■ GOOD □ LOW □ UNKNOWN

The DENR Offices throughout the Philippines have made this activity as a regular activity in their Work and Financial Plan.

The subject on conservation of marine turtle and its habitat is part of the curricula in some public elementary schools in the Philippines.

Marine turtle articles/news are always featured in most of the dailies and TV networks.

#### Egg relocation/hatcheries

■ YES 「 NO 「 N/A

□ EXCELLENT ■ GOOD □ LOW □ UNKNOWN

Hatcheries are used to protect eggs in other areas where there is poaching.

#### Predator control

Use of poison with recommended procedures to reduce rat population. Removal of domestic cats. Reduction of the number of dogs. Removal of grazers (introduced animals) such as cows and goats to re-vegetate Baguan Island, Turtle Island.

#### Vehicle / access restrictions

□ YES ■ NO □ N/A □ EXCELLENT □ GOOD □ LOW □ UNKNOWN

#### Removal of debris / clean-up

Efforts are being made to remove debris that impedes turtle nesting and hatchling production. In the Turtle Islands, epecially in Baguan Island, beach clearing is a regular activity, particularly removal of drifted logs to prevent trapping of nesting turtles.

In Morong, Bataan, beach cleaning is one of the Bantay Pawikan's activities since 1999.

There are many organizations, Local Government Units that have coastal clean-up activities. They also participate in the International Coastal Clean-up day every year.

#### Re-vegetation of frontal dunes

■ YES 「 NO 「 N/A

□ EXCELLENT □ GOOD ■ LOW □ UNKNOWN

Efforts are being made to re-vegetate frontal dunes at nesting beaches; in Baguan Island, Turtle Islands, Tawi-Tawi -Removal of all grazers and replanting of Ipomoea pes-caprae in 1998. Vegetation in the island has improved tremendously.

#### **Building location/design regulations**

r Yes ∎ NO r N/A

 $\Box$  EXCELLENT  $\Box$  GOOD  $\Box$  LOW  $\Box$  UNKNOWN

Ayala Lands, Inc. which is developing Anvaya Cove, a high-end residential area in Morong, Bataan has incorporated their development to lessen the impact on marine turtles particularly in the nesting area. This design is part of the requirement of their Environmental Clearance Certificate issued by the DENR.

#### Light pollution reduction

■ YES 「 NO 「 N/A

 $\Box$  EXCELLENT  $\Box$  GOOD  $\Box$  LOW  $\Box$  UNKNOWN

The proper construction, requirement and placement of artificial lights were also recommended in the above land development.

#### Other (list and rate them)

└ YES └ NO └ N/A

#### 1.6.2 Has your country undertaken any evaluation of its nest and beach management programmes? [SAP]

**YES** INO INOT APPLICABLE

Unpublished PCP reports that include annual assessment of activities. Starting November 2004, to coincide with the nesting season of olive ridley which from September to March of the following year, the DENR with the Local Government of Zambales and Environmental Protection for Asia Foundation Inc. (EPAFI) are monitoring the nesting beaches in the province of Zambales. This activity is part of the Memornadum of Agreement signed by the said parties. Part of the ogram is to place the turtle eggs in designated hatcheries. However, some of the eggs transferred do not develop further due to mishandling.

In Baguan Island, TIWS, it was decided that the practice of transferring nests found in the pocket beaches of the island which is prone to poaching be discontinued. Past records show that hatching success of these transplanted nests were low. Instead, enhancement of patrolling of the island with assistance from the Philippine Coast Guard and Philippine Marines is being implemented.

#### **OBJECTIVE II. PROTECT, CONSERVE AND REHABILITATE MARINE TURTLE HABITATS**

2.1.1 What is being done to protect critical habitats *outside* of established protected areas? (NB: It is assumed that legislation relating to established protected areas will have been described in Section 1.5.1) [BPR, SAP]

The DENR encourages partnership thru MOA on the conservation of marine turtles among the stakeholders in a particular area, specifically in areas outside of established protected areas.

Pursuant to RA 9147, critical habitats of threatened species may be established. The procedures for the establishment of a critical habitat is easier and faster than in establishing a protected area under the NIPAS Act. DENR Administrative Order No. 2012-08 dated October 8, 2012 established the 5 coastal barangays (villages) of the municipality of Carmen in the province of Agusan del Norte as critical habitat for marine turtles. The establishment of 2 other sites, e.g., Hinatuan, Surigao del Sur and Magsaysay in Misamis Oriental) as critical habitat for marine turtles is underway. All three sites are hawksbill nesting areas.

Other nesting sites of marine turtles have been proposed for establishment as Marine Protected Areas (MPAs).

### 2.1.2 Are assessments routinely made of the environmental impact of marine and coastal development on marine turtles and their habitats? [IND, SAP]

#### **YES** INO INOT APPLICABLE

An Environmental Impact Assessment (EIA) is a requirement by the DENR for areas to be developed particularly for large-scale development.

WWF has capacity to conduct environmental sensitivity index mapping employing digital aerial videography, satellite imageries and GIS.

2.1.3 Is marine water quality (including marine debris) monitored near turtle habitats? If yes, describe the nature of this monitoring and any remedial measures that may have been taken. [SAP]

#### **YES** INO INOT APPLICABLE

There are regular water quality testing but only in areas where there are industries that need to implement this activity. In general, policy is in place but lacks enforcement and monitoring.

#### 2.1.4 Are measures in place to prohibit the use of poisonous chemicals and explosives? [SAP]

#### ■ YES 「 NO NOT APPLICABLE

Republic Act No 8550 or the Philippine Fisheries Code of 1998 explicitly provides for the banning of all poisonous and explosive materials for fishing. The implementing agencies are the Local Government Units and the Philippine Coast Guard.

There's an existing MOA between and among the DENR, Department of Agriculture-Bureau of Fisheries (DA-BFAR), Department of National Defense (DND), Department of Justice (DOJ), Department of Interior and Local Government (DILG), Department of of Transport and Communication (DOTC), and WWF for a Sulu-Sulawesi Enforcement Crusade to increase effectiveness of enforcement of regulations against illegal and destructive fishing activities.

### 2.2.1 Are efforts being made to recover degraded coral reefs? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc). [IND, SAP]

**YES** INO INOT APPLICABLE (no degraded coral reefs)

There are organizations that conduct and assist in the recovery of degraded coral reefs, particularly in the Province of Batangas and Visayas area.

Deployed temperature sensors in Turtle Islands, Tubbataha in Palawan and Anilao in Batangas to monitor impact of El Nino.

University of the Philippines-Marine Science Institute (UP-MSI) and Department of Science and Technology (DOST) have the technology on coral transplantation which is currently used in different parts of the country.

UP-MSI currently monitors coral bleaching using the internet.

### 2.2.2 Are efforts being made to recover degraded mangrove habitats that are important for turtles? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.) [IND, SAP]

**YES NO NOT** APPLICABLE (no mangrove habitats important for turtles)

The Coastal Marine Management Office is a special program of the DENR. It has satellite offices in all DENR Regional Offices throughout the country. One of its main activities is re-forestation and rehabilitation of mangrove areas throughout the country. There are successes and failures in the program.

In 2011, a series of consultative meetings were held among the 3 government departments, namely: Department of Environment and Natural Resources (DENR), Department of Agriculture (DA-BFAR) and Department of Interior and Local Government (DILG) to discuss the Mangrove Convergence (MG). The end product of the MG is to come up with a Joint Department Administrative Order among the mentioned departments to collaboratively address the concern on "abandoned, unutilized and undeveloped " Foreshore Lease Agreements (particularly on mangroves converted to fishponds) that will be reverted to forest (mangrove) area for co-management activities.

2.2.3 Are efforts being made to recover degraded sea grass habitats? If yes, give details (location, duration, effectiveness, lessons learned, future plans etc.). [IND, SAP]

**YES** INO INOT APPLICABLE (no degraded sea grass habitats)

An intensive study on the rehabilitation potential of seagrass transplantation was undertaken in the Philippines. In Cape Bolinao in the province of Pangasinan, the ability of seagrasses to colonize biologically desolate area and improve biomass was demonstrated. In Calancan Bay in the province of Marinduque, an area of about 0.01 km2 around the mine tailings causeway has been transplanted with seagrasses. Two years after transplantation, the plantings completely coalesced to attain the original biomass and productivity levels and no portions of the substratum were left bare. There was on average an annual bed expansion of 32%. The results indicate that even on copper mine tailings, the seagrasses could grow fast and probably regain their lost ecological functions. On of the latter was shown by the general increase with time of the number of fish associated with the structures (from 2-17 in 1989 to 22-34 in 1990). The number of fish caught in the transplanted areas represents 33.3% of the total number of fish species recorded from the same western protion of the causeway. After five years, the study showed that there were no significant differences when the growth rates of naturally growing versus transplanted materials of the same seagrass species were compared (PNSC, 2004).

Seagrass issues and concerns will be part of the concerns of the National Integrated Coastal Management Program which is currently being drafted.

### **OBJECTIVE III. IMPROVE UNDERSTANDING OF MARINE TURTLE ECOLOGY AND POPULATIONS THROUGH RESEARCH, MONITORING AND INFORMATION EXCHANGE**

### **3.1.1** Give a list of available literature that includes baseline information from studies carried out in your country on marine turtle populations and their habitats. **[INF]**

1) PAWB-PCP Annual accomplishment reports

2) Cruz, Renato D. 2009. Philippines in: Syed Abdullah S.A.K., Osamu Abe (Editors) Report of the Third Regional Technical Consultation on Research for Stock Enhancement of Sea Turtles (Japanese Trust Fund IV Program). SEAFDEC-MFRDMD RM/24

3) Cruz, Renato D. 2004. Philippines in: Zulkifli, T. et al (editors). Conservation and Enhancement of Sea Turtles in the Southeast Asian Region. Marine Fishery Resources Development and Management Department, Southeast Asian Fisheries Development Center

4) Cruz, Renato D. 2002b. Marine Turtle Distribution and Mortality in the Philippines in: Kinan, I. (editor). Proceedings of the Western Pacific Sea Turtle Cooperative Research and Management Workshop. February 5-8, 2002, Honolulu, Hawaii, USA. Honolulu, HI: Western Pacific Regional Fishery Management Council. 300 p

5) Cruz, Renato D. 1999. Research, Conservation and Management of Marine Turtles in the Philippines. In: Report of the SEAFDEC-ASEAN Regional Workshop on Sea Turtle Conservation and Management. Marine Fishery Resources Development and Management (MFFDMD) and Southeast Asian Fisheries Development Center (SEAFDEC). 26-28 July 1999. Kuala Terengganu, Malaysia. 146-159 pp

6) De Veyra, Rhodora T.D.Ramirez. 1994a. Status of Marine Turtles in the Philippines in: Bjorndal, K.A., A.B. Bolten, D.A. Johnson, and P.J. Eliazar (Compilers). Proceedings of the Fourteenth Annual Symposium on Sea Turtle Biology and Conservation. NOAA Technical Memorandum NMFS-SEFSC-351. 323 pp.

7) Palma, Jose Angelito M. 1994. Marine Turtle Conservation in the Philippines in: Proceedings of the First ASEAN Symposium-Workshop on Marine Turtle Conservation, Manila, Philippines, 1993. World Wildlife Fund. pp. 181-191 pp

8) PNSC. 2004. Seagrass of the Philippines: Country Report. UNEP/GEF SCS Project: Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. PNSC Publ. Philippines, 60pp.

9) WWF Sulu-Sulawesi Marine Ecoregion Biodiversity Vision identified priority conservation areas.

10) Viloria, Angelita T. 2009. Survey of Marine Turtle Nesting Sites in the Philippines in Sylvatrop The Technical Journal of Philippine Ecosystems and Natural Resources. Vol. 19 Nos. 1-2. January-December 2009 pp. 57-80.

### **3.1.2** Have long-term monitoring programmes (i.e. of at least 10 years duration) been initiated or planned for priority marine turtle populations frequenting the territory of your country? [IND, BPR]

#### ■ YES 「 NO 「 UNSURE

The following areas are regularly monitored for tagging and release, nesting incidence and in situ or ex situ protection of nests/eggs, hatchlings released:

- 1. Turtle Islands, TawiTawi, 1982 to present, green and hawksbill turtles
- 2. Morong, Bataan, 1999 to present, olive ridley turtles
- 3. Bagac, Bataan, 2004 to present, olive ridley and hawksbill turtles
- 4. Hinatuan, Surigao del Sur, 2003 to present, hawksbill turtles
- 5. Davao City, 2004 to present, hawksbill and olive ridley turtles
- 6. Zambales, 2003, olive ridley turtles

Other areas monitored for nesting incidences with less than 10 years duration:

1. Magsaysay, Misamis Oriental, 2006 to present, hawksbill turtles

- 2. Dahican, Mati City, Davao Oriental, 2012, hawksbill and olive ridley turtles
- 3. Island Garden City of Samal, Davao del Norte, 2006, hawksbill turtles
- 4. San Juan, Batangas, 2006, olive ridley turtles
- 5. Calaca, Batangas, 2010, olive ridley turtles
- 6. Lian, Batangas, 2008, olive ridley turtles
- 7. Hinoba-an, Negros Occidental, 2011, hawksbill turtles
- 8. Naic, Cavite, 2012, olive ridley turtles

The DENR Regional and Field Offices monitor incidences of nesting in a certain areas based on reports from concerned citizens. Locals are tapped to report nesting incidences to the nearest local DENR Office.

All conservation partners of the DENR are obliged to report nesting incidences and tagged and released turtles.

All information are sent to the BMB (formerly PAWB).

#### 3.1.3 Has the genetic identity of marine turtle populations in your country been characterised? [INF, PRI]

#### **YES** INO UNSURE

Genetic samples have been collected in the Turtle Islands, Tawi-Tawi and Sabah Turtle Islands in collaboration with Dr. Colin J. Limpus in 1993. The SEAFDEC-MFRDMD in collaboration with Southeast Asian countries conducted a Genetic Study for green and hawksbill turtles from 2006-2007. In the Philippines, tissue samples from green turtle nesters were collected in three sites, namely: Turtle Islands, Tawi-Tawi; Apro Reef Island, Mindoro and Panikian Island, Zamboanga del Sur while for hawksbill turtle nesters, tissue sample collection sites included : Davao Gulf; Apo Reef Island, Mindoro and Arena Island, Palawan. All tissue samples were sent to SEAFDEC-MFRDMD for analysis. The results of genetic analysis of SEAFDEC-MFRDMD strengthened the findings of the earlier study on green turtles from Philippine Turtle Islands and Sabah Turtle Islands that it is one distinct stock or one management unit.

The findings in the other areas are inconclusive because only a few tissue samples were collected.

### 3.1.4 Which of the following methods have been or are being used to try to identify migration routes of turtles? Use the text boxes to provide additional details. [INF, PRI]

Tagging ■ YES □ NO

Tagging activity throughout the Philippines thorugh the DENR Regional Offices and some Local Government Units and NGOs. All marine turtles with curved carapace length of at least 40cm and above are tagged.

Satellite tracking **I** YES **I** NO

Salellite tracking was done in Turtle Islands Heritage Protected Area (TIHPA) for green and hawksbill turtle nesters. Results of this research can be viewed at www.onceocean.org.

□ Other

 $\square$  None of the above

**3.1.5** Have studies been carried out on marine turtle population dynamics and survival rates (e.g. including studies into the survival rates of incidentally caught and released turtles)? [INF, PRI]

✓ YES ■ NO UNSURE

#### 3.1.6 Has research been conducted on the frequency and pathology of diseases in marine turtles? [INF, PRI]

#### ■ YES 「 NO 「 UNSURE

Research was conducted on fibropapillomas in the Turtle Islands, Tawi-Tawi in conjunction with an undergraduate thesis. But this was proposed as an action under Sulu-Sulawesi Marine Ecoregion among the three countries, Indonesia, Malaysia and the Philippines.

#### 3.1.7 Is the use of traditional ecological knowledge in research studies being promoted? [BPR, PRI]

**YES** INO UNSURE

Habitat surveys are conducted using interviews with the communities adjacent to reported nesting and feeding sites.

### 3.2.1 List any regional or sub-regional action plans in which your country is already participating, which may serve the purpose of identifying priority research and monitoring needs. [INF]

Sulu-Sulawesi Marine Ecoregion, Turtle Islands Heritage Protected Area, SEAFDEC-ASEAN Regional Workshop, SEASTAR, NOAA, Coral Triangle Initiative (CTI).

3.2.2 On which of the following themes have collaborative studies and monitoring been conducted? Use the text boxes to describe the nature of this international collaboration or to clarify your response. Answer 'NO' if the studies/monitoring undertaken do not involve international collaboration. [INF, PRI]

a) Genetic Identity

■ YES NO NOT APPLICABLE

**b)** Conservation status ■ YES □ NO □ NOT APPLICABLE

ASEAN-SEAFDEC, TIHPA, SSME

c) Migrations ■ YES □ NO □ NOT APPLICABLE

SEASTAR, NOAA, TIHPA, ASEAN-SEAFDEC, SSME

d) Other biological and ecological aspects ■ YES □ NO □ NOT APPLICABLE

TIHPA

☐ Other

### **3.3.1** List, in order of priority, the marine turtle populations in your country in need of conservation actions, and indicate their population trends. **[PRI]**

Green turtle - population nesting in Turtle Islands, Tawi-Tawi = 80% decline between 1951 - 1982. From 1982 to present, egg production is from 1 million to 2 million per year. Nesting season is whole year. May to October is the peak season.

Olive ridley turtle - population nesting in Morong, Bataan = Baseline for monitoring was established in 1999. About 60-100 nests per nesting season. Nesting season is from September to March of the following year.

Starting November 2004, monitoring and conservation activities are being done in the province of Zambales. Monitoring is on-going.

Hawksbill turtle - nesting sites include Misamis Oriental, Davao City, Davao del Norte, Surigao del Sur, Agusan del Norte and Arena Island in Narra, Palawan. These areas are being monitored for nesting by partners and collaborators. Nesting season is from April to October.

Leatherback - 2 incidences of nesting were reported at Brgy. Rawis in Legazpi City, Albay and Camp Picardo beach in Dolores, Eastern Samar. The latter area needs regular monitoring of nesting incidence. The 2 incidences of leatherback nesting occurred on July and August of 2013.

3.3.2 Are research and monitoring activities, such as those described above in Section 3.1 periodically reviewed and evaluated for their efficacy? [SAP]

■ YES 「 NO 「 UNSURE

yearly

**3.3.3** Describe how research results are being applied to improve management practices and mitigation of threats (in relation to the priority populations identified in 3.3.1, among others). [SAP]

Research results are being used to improve the efficacy of conservation actions through the assessment of hatchery management practices.

The practices on hatchery management by DENR conservation partners are compared and the best practice is disseminated in other areas.

The DENR initiated the joint analysis of data with conservation partners in order to test their technical capability and/or determine the necessity of conducting a re-orientation or re-training.

### 3.4.1 Has your country undertaken any initiatives (nationally or through collaboration with other Range States) to standardise methods and levels of data collection? [BPR, INF]

■ YES 「 NO 「 UNSURE

Turtle Islands Heritage Protected Area but only for hatchery management and tagging procdure. This procdure is also replicated to other areas of the country. There is a move to have another agreement among Indonesia, Malaysia and the Philippines to include Derawan Islands of East Kalimantan, Indonesia with TIHPA. Recently, the PCP standardized the data gathering on Nesting Beach Assessment during its Annual Assessment of Activities.

With SEAFDEC-MFRDMD

3.4.2 To what extent does your country exchange scientific and technical information and expertise with other Range States? [SAP, IND]

□ OFTEN (SYSTEMATICALLY)

OCCASIONALLY

□ RARELY □ NEVER

3.4.3 If your country shares scientific and technical information and expertise with other Range States, what mechanisms have commonly been used for this purpose? Comment on any positive benefits/outcomes achieved through these interactions. [INF]

1) Annual Joint Committee Meeting with Malaysia for the Turtle Islands Heritage Protected Areas.

2) Meeting with other ASEAN countries during ASEAN-SEAFDEC meetings.

3) Presentation of researches conducted and other relevant reports during international meetings, conferences, trainings, seminar

### 3.4.4 Does your country compile and make available to other countries data on marine turtle populations of a regional interest? [INF]

BMB has a record on foreign tag recoveries or turtles tagged by other countries that migrated to the Philippines.

Annual nesting trends of both Turtle Islands of the Philippines and Malaysia, presented during the annual Joint Committee Meeting (JMC)-TIHPA

### **OBJECTIVE IV. INCREASE PUBLIC AWARENESS OF THE THREATS TO MARINE TURTLES AND THEIR HABITATS, AND ENHANCE PUBLIC PARTICIPATION IN CONSERVATION ACTIVITIES**

### **4.1.1** Describe the educational materials, including mass media information programmes that your country has collected, developed and/or disseminated. **[INF, PRI]**

Since 1983, the Pawikan Conservation Project, PAWB-DENR developed and disseminated all possible and effective means of communcation materials such as documentary films (20-30 minute film), radio plugs (a 15-second radio plug translated into 4 dialects), posters, primers, brochures, bookmarks, billboards, pre-paid postcards, stamp canceller (in collaboration with the Philippine Postal Office), T-shirts, and baseball caps. A website (oneocean.org) was also developed in collaboration with the Coastal Resource Managment Program, a USAID funded project of the DENR.

News articles on marine turtle issues are occasionally published in major dailies, magazines and provincial dailies.

Mass media information programmes that have been developed and implemented include a regular showing of documentary films in advocacy cable TV stations. These documentary films were produced by TV stations and private companies in collaboration with our office.

The DENR has developed and institutionalized Dalaw-Turo (Visit and Teach) Program. This is an outreach program of the DENR that employs a non-traditional education participatory communication design of teaching biodiversity and sustainable development. The most interesting feature of this program is the integration of lectures, drama (skit) and games as a technique in imparting conservation of natural resources among its audience. The marine turtle has become a part of this program. From 1992-2000, more than 46,829 students, 964 teachers, 3,422 communities and 576 DENR personnel from all regions have participated in the Dalaw-Turo.

Information Education Awareness on the conservation of endangered wildlife including marine turtles is a regular activity of the DENR through its regional and field offices throughout the Philippines.

The Philippines contributed to the development of a web-based information resource for marine turtle conservation by providing data on marine turtle populations, nesting data, migration data and information on projects. Contributions to web-sites or newsletters to facilitate networking and information exchange include:

1) Oneocean.org - currently being managed by the Coastal Resources Management Program, USAID-funded and special project of the DENR.

2) www.bmb.gov.ph - BMB website.

- 3) SEASTAR
- 4) WWF
- 5) ASEAN Regional Center for Biological Conservation

### 4.1.2 Which of the following groups have been the targets of these focused education and awareness programmes described in above in Section 4.1.1? [PRI, INF]

- Policy makers
- Fishing industry
- Local/Fishing communities
- Indigenous groups
- Tourists
- Media
- Teachers
- Students
- Military, Navy, Police
- Scientists
- □ Other:
- ☐ None of the above

In every education and awareness activity, level of education is noted and the presentors adjust to the type of audience. The equipment used differs for every location and group depending on the availabity of electricity and venue.

#### 4.1.3 Have any community learning / information centres been established in your country? [BPR, SAP]

#### **YES** INO

1) The Protected ARea Office in Taganak, TIWS - for the locals of Turtle Islands, Tawi-Tawi

2) Baguan Island, TIWS - visited by locals and international tourists, media, researchers, NGOs and other government agencies, as well as some international funding organizations, private organization, businessmen 3) Pawikan Center established by the Bantay Pawikan, Inc. (BPI) at Nagbalayong, Morong, Bataan - with the members and officials of the BPI manning the information center. The Center is frequently visited by local and international tourists 4) Other information centers temporarily established by BMB conservation partners.

### 4.2 Alternative livelihood opportunities [IND, BPR] Describe initiatives already undertaken or planned to identify and facilitate alternative livelihoods (including income-generating activities) for local communities.

- Initiatives of WWF-Phils. in Turtle Islands

- Soft loans for affected families in Morong, Bataan. The loans are given through the Local Government of Bataan. Livelihood grant from Japan. Ecotourism

# 4.3.1 Describe initiatives already undertaken or planned by your country to involve local communities, in particular, in the planning and implementation of marine turtle conservation programmes. Please include details of any incentives that have been used to encourage public participation, and indicate their efficacy. [BPR, IND]

1) The BMB-DENR through its Regional and Field Offices is involving all stakeholders in the planning and implementation of marine turtle conservation and management activities. This is institutionalized through a Memorandum of Understanding or Agreement among partners. The BMB provides tokens in the form of a T-shirt, or a baseball cap or a fisherman's hat (whichever is available) and a certificate of appreciation to a fisherman or concerned citizen who reported the capture of a marine turtle, encountered a turtle nest or hatchlings to the nearest local DENR Office. This token-giving has been very effective in encouraging public participation. As a result, BMB receives an annual average of 300 reports all over the Philippines. BMB conservation partners are trained on marine turtle conservation procedures and hence are given the opportunity to tag marine turtles and protect turtle nests/eggs laid in their areas of jurisdiction. This resulted to the increase in the number of LGUs, NGOs, POs, academe and private sectors that wanted to become a DENR conservation partner. Before, only DENR personnel are allowed to tag turtles and to handle the relocation of turtle eggs into higher grounds for incubation. 2) NGOs such as WWF-Phils. and Conservation International-Philippines guiding principle in project development and implementation is stakeholdership and community involvement. A regular activity of the DENR Regional Offices is Information Education Awareness.

### **4.3.2** Describe initiatives already undertaken or planned to involve and encourage the cooperation of Government institutions, NGOs and the private sector in marine turtle conservation programmes. [IND, BPR]

Local Government Units (LGUs), NGOs, private sector that are partners of the DENR through a Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU) formulates their marine turtle conservation action plan. BMB conservation partners are trained on marine turtle conservation procedures and hence are given the opportunity to tag marine turtles and protect turtle nests/eggs laid in their areas of jurisdiction. This resulted to the increase in the number of LGUs, NGOs, POs, academe and private sectors that wanted to become a DENR conservation partner. Before, only DENR personnel are allowed to tag turtles and to handle the relocation of turtle eggs into higher grounds for incubation. Stakeholdership and community involvement involvement is a guiding principle in project development and implementation for WWF and NGOs in general.

Through the Presidential Commission for the Integrated and Development of Sulu-Celebes Seas the policy-making body for the Philippines on the Sulu-Sulawesi Marine Ecoregion.

#### **OBJECTIVE V. ENHANCE NATIONAL, REGIONAL AND INTERNATIONAL COOPERATION**

5.1.1 Has your country undertaken a national review of its compliance with Convention on International Trade in Endangered Species (CITES) obligations in relation to marine turtles? [SAP]

■ YES 「 NO 「 NOT APPLICABLE

The Philippines has also actively encouraged other (non-Party) States to join CITES

5.1.2 Does your country have, or participate/cooperate in, CITES training programmes for relevant authorities? [SAP]

**YES** INO INOT APPLICABLE

5.1.3 Does your country have in place mechanisms to identify international illegal trade routes (for marine turtle products etc.)? Please use the text box to elaborate on how your country is cooperating with other States to prevent/deter/eliminate illegal trade. [SAP]

**YES** INO INOT APPLICABLE

The issue of turtle egg trade coming from the Turtle Islands, Philippines to Sandakan, Malaysia had been discussed during the meetings of the Joint Management Committee, the policy-making body of the Turtle Islands Heritage Protected Area, the bilateral agreement between Malaysia and the Philippines. RA 9147 was enacted in 2001 banning exploitation of marine turtles including its by-products throughout the country. However, the local government and endorsed by the Governor of the Autonomous Region of Muslim Mindanao appealed to the President of the Philippines for a 5-year transitory period before the full implementation of the law in the Turtle Islands.

### 5.1.4 Which international compliance and trade issues related to marine turtles has your country raised for discussion (e.g. through the IOSEA MoU Secretariat, at meetings of Signatory States etc.)? [INF]

Policy formulation Surveillance and law enforcement operations CITES permit issuances

### 5.1.5 Describe measures in place to prevent, deter and eliminate domestic illegal trade in marine turtle products, particularly with a view to enforcing the legislation identified in Section 1.5.1. [INF]

The DENR created a Regional Wildlife Monitoring Team (per region) that monitors wildlife from exit and entry points (ports and airports). Regular surveillance and monitoring of areas and/or establishments engaged in the illegal trade of endangered species.

### 5.2.1 Has your country already developed a national action plan or a set of key management measures that could eventually serve as a basis for a more specific action plan at a national level? [IND]

#### **YES** NO

BMB is implementing applicable activities provided in the IOSEA Conservation and Management Plan. Action plans are formulated on a per site basis. Each site plan forms part of the Memorandum of Understanding/Agreement that is signed by and among the DENR and partners. An existing action plan that can be considered a possible model is the Memorandum of Agreement in Davao City. Their action plan was based on the Conservation and Management Plan of the IOSEA.

The PCP evaluates marine turtle conservation reports submitted by the DENR Regional and Field Offices. The results are usually used as basis in the annual planning of activities. In 2009, concerned government agencies, prosecutors, local governments and NGOs convened to draft Action Plans for hotspots on wildlife trading routes (particularly on marine turtles). In 2010, Executive Order 899 was signed to implement the Philippine Action Plan on Enforcement of Environmental Law in Turtle Islands, Tawi-Tawi and Balabac, Palawan.

### 5.2.2 From your country's perspective, which conservation and management activities, and/or which particular sites or locations, ought to be among the highest priorities for action? [PRI]

1.1.a) Collate and organize existing data on threats to marine turtle populations.

1.2.b) Adapt and adopt the best conservation and management practices for marine turtle populations

1.3.b) Identify desired modifications to the economic incentives in order to reduce threats and mortality and develop programmes to implement the modifications.

2.1.a) Identify areas of critical habitat such migratory corridors, nesting beaches, inter-nesting and feeding areas.

2.1.b) Designate and manage protected areas, sanctuaries or temporary exclusion zones in areas of critical habitat or take other measures.

2.1.g) Strengthen the application of existing bans on the use of poisonous chemicals and explosives in the exploitation of marine resources.

3.1.b) Initiate and/or continue long-term monitoring of priority marine turtle populations in order to assess conservation status.

3.1.d) Identify migratory routes through the use of tagging, genetic studies and/or satellite tracking.

3.2.a) Identify and include priority research and monitoring needs in regional and sub-regional plans

3.2.b) Conduct collaborative studies and monitoring on genetic identity, conservation status, migrations, and other biological and ecological aspects of marine turtles.

3.3.b) Identify population trends.

3.3.c) Use research results to improve management, mitigate threats and assess the efficacy of conservation activities.

3.4.a) Standardisze methods and levels of data collection and adopt or develop an agreed set of protocols for inter alia monitoring of nesting beaches, feeding ground studies, genetic sampling, and collection of mortality data.

4.1.d) Develop and conduct focused education and awareness programmes for target groups.

4.2) Identify and facilitate alternative livelihoods that are not detrimental to marine turtles and their habitats in consultation with local communities and other stakeholders.

5.1.d) Identify routes of international illegal trade through monitoring and seek cooperation to take action to prevent, deter and where possible, eliminate illegal trade.

5.4.b) Provide training in marine turtle conservation and management techniques to relevant agencies, individuals and local communities.

### 5.2.3 Please indicate, from your country's standpoint, the extent to which the following local management issues require international cooperation in order to to achieve progress. [PRI]

Illegal fishing in territorial waters	■ ESSENTIAL
Incidental capture by foreign fleets	■ ESSENTIAL
Enforcement/patrolling of territorial waters	■ ESSENTIAL
Hunting/harvest by neighboring countries	S F ESSENTIAL <b>Important</b> F Limited F not at all
Poaching, illegal trade in turtle projects	□ ESSENTIAL ■ IMPORTANT □ LIMITED □ NOT AT ALL
Development of gear technology	□ ESSENTIAL ■ IMPORTANT □ LIMITED □ NOT AT ALL
Oil spills, pollution, marine debris	ESSENTIAL <b>IMPORTANT</b> LIMITED NOT AT ALL
Training / capacity-building	□ ESSENTIAL ■ IMPORTANT □ LIMITED □ NOT AT ALL
Alternative livelihood development	■ ESSENTIAL
Identification of turtle populations	□ ESSENTIAL ■ IMPORTANT □ LIMITED □ NOT AT ALL
Identification of migration routes	ESSENTIAL <b>IMPORTANT</b> LIMITED NOT AT ALL
Tagging / satellite tracking	□ ESSENTIAL ■ IMPORTANT □ LIMITED □ NOT AT ALL
Habitat studies	■ ESSENTIAL
Genetics studies	■ ESSENTIAL

1) Trawl fishing in border waters

2) Alternative livelihood for island communities and remote areas

3) Established bilateral/trilateral agreement between countries with same genetic populations (in border waters)

4) Law enforcement and patrolling

5.3.1 Identify existing frameworks/organisations that are, or could be, useful mechanisms for cooperating in marine turtle conservation at the sub-regional level. Please comment on the strengths of these instruments, their capacity to take on a broader coordinating role, and any efforts your country has made to enhance their role in turtle conservation. [INF, BPR]

The Ecological Monitoring and Environmental Studies of TIHPA conducted by WWF Philippines. Regular monitoring in the islands of Sabah Parks and Turtle Islands Philippines.

Establishing the MoU on the Adoption of the Conservation Plan for the Sulu-Sulawesi Marine Ecoregion among Indonesia, Malaysia and the Philippines last February 2004.

#### ASEAN-SEAFDEC meetings

Promoted synergies with other regional/global convention secretariats through the Sulu-Sulawesi Marine Ecoregion and Coral Triangle Initiative

### 5.3.2 Has your country developed, or is it participating in, any networks for cooperative management of shared turtle populations? [BPR, INF]

■ YES NO NOT APPLICABLE

### 5.3.3 What steps has your country taken to encourage Regional Fishery Bodies (RFBs) to adopt marine turtle conservation measures within Exclusive Economic Zones (EEZs) and on the high seas? [SAP]

DA-BFAR provides on-board observers in EEZ and high seas

### 5.4.1 Describe your country's needs, in terms of human resources, knowledge and facilities, in order to build capacity to strengthen marine turtle conservation measures. [PRI]

Key personnel in all DENR Regional Offices were undergone training on the following:

Identification of marine turtle species Biology of marine turtles (life stages) and importance History and activities of the PCP Relevant national and international laws. The training included a workshop for action planning particularly in their area or jurisdiction.

Conservation International Philippines provided training to local government and enforcement agencies in their focal areas (provinces within Verde Passage, Balabac and Cagayancillo in Palawan, Turtle Islands in Tawi-Tawi) on paralegal training and other related topics on marine conservation.

As mentioned in 1.2.1 of this report, the National Integrated Coastal Management Program is currently being established. Part of the process in establishing the program is capacitating the local government units and government agencies (DENR and DA-BFAR) directly involved on coastal management resources. Based on a report on an assessment of the human resources and capacity building needs of DENR, DA-BFAR and Local Governments on Coastal Environmental Governance, the following are identified problems, issues, and capacity building needs:

Intitutional Weakness: No national ICM Program to guide coastal governance, no functional government unit that provides coordination on coastal management from national to local level, lack of qualified and trained national ICM/CRM professional workers, no mandated organic coastal and environment office in most city/municipal local government units, overlapping jurisdictions/interagency conflicts, no coordinating mechnisms for the management of shared waters and contiguous marine biodiversity areas, weak support of DENR and DA-BFAR to local government units in implementation of ICM, Inadequate capacity of LGUs to implement ICM (lack of personnel, unsuitable/unqualified staff & staff lack knowledge and understanding of ICM, and Inadequate capacity of LGUs to implement ICM (lack funds, lack of equipment, weak law enforcement).

### 5.4.2 Describe any training provided in marine turtle conservation and management techniques (e.g. workshops held, training manuals produced etc.), and indicate your plans for the coming year. [PRI, INF]

Yes, same information as item # 5.4.1

Training programmes, workshops etc. been coordinated nationally and regionally through the following:

1) The PCP-PAWB is responsible for national training.

2) WWF conducted a training activity in Baguan Island, Turtle Islands for staff of Con Dao Marine Park, Vietnam. The PCP-PAWB staff was part of the activity.

3) A Sulu-Sulawesi Marine Ecoregion training activity on marine turtle conservation was done in Berau District, East Kalimantn, Indonesia that involved representatives from Indonesia, Malaysia and the Philippines.

### 5.4.3 Specifically in relation to capacity-building, describe any partnerships developed or planned with universities, research institutions, training bodies and other relevant organisations. [BPR]

NGOs, Local Government Offices, schools and universities request for training or orientation for their staff and/or students/teachers.

# 5.5.1 National policies and laws concerning the conservation of marine turtles and their habitats will have been described in Section 1.5.1. Please indicate their effectiveness, in terms of their practical application and enforcement. [SAP, TSH]

The effectiveness of national laws related to the conservation of marine turtles has been good in some areas of the Philippines, particularly if it is within the interest of the local government unit. The presence of NGOs supporting conservation activities enhances conservation effort in a particular area. The key is to organize a people's organization (PO) in a particular area with the active support of the local government. Even if the political atmosphere changes in an area, the established PO will be the focal group responsible to continue the conservation activities.

5.5.2 Has your country conducted a review of policies and laws to address any gaps, inconsistencies or impediments in relation to marine turtle conservation? If not, indicate any obstacles encountered in this regard and when this review is expected to be done. [SAP]

■ YES NO UNSURE

The NIPAS law and Fisheries Code were reviewed and amended

### 5.5.3 From the standpoint of law enforcement, has your country experienced any difficulties achieving cooperation to ensure compatible application of laws across and between jurisdictions? [TSH]

■ YES 「 NO 「 UNSURE

RA 9147, information awareness is still needed in throughout the country.

A group of lawyers came up with a complilation of existing environmental laws that included their analysis on the implementation and jurisdiction of these laws. Part of the analysis is why the implementation of the environmental laws are not effectively done.

Consultation meetings with the local government, ARMM, DENR and other concerned agencies/offices like WWF and CI

#### OBJECTIVE VI. PROMOTE IMPLEMENTATION OF THE MoU INCLUDING THE CONSERVATION AND MANAGEMENT PLAN

### 6.1.1 What has your country already done, or will it do, to encourage other States to sign the IOSEA MoU? [INF]

Through consultation meetings with Indonesia and Malaysia on the Sulu-Sulawesi Marine Ecoregion

6.1.2 Is your country currently favourable, in principle, to amending the MoU to make it a legally binding instrument? [INF]

r Yes ∎ No r No View

6.1.3 Would your country be favourable, over a longer time horizon, to amending the MoU to make it a legally-binding instrument? [INF]

#### 6.2 Secretariat and Advisory Committee

### 6.2.1 What efforts has your country made, or can it make, to secure funding to support the core operations of the IOSEA MoU (Secretariat and Advisory Committee, and related activities)? [IND]

As agreed during one of the past IOSEA meetings, signatory states were encouraged to provide voluntary contribution for the operating expenses of the secretariat. However, since the MoU is not ratified, we have a hard time securing said contribution.

# 6.3.1 What funding has your country mobilised for domestic implementation of marine turtle conservation activities related to the IOSEA Marine Turtle MoU? Where possible, indicate the specific monetary values attached to these activities/programmes, as well as future plans. [IND]

Starting 2014, the funding for marine turtle conservation has been incorporated in the Conservation of Threatened Species (marine and terrestrial) under the Wildlife Resources Division of Biodiversity Management Bureau, DENR.

Meager amount of funds for meeting venue and accommodation of participants are occasionally provided by some partner-NGOs, and equipment (laptop, camera, printer and scanner) are donated by other Offices with related programs and projects with international funding.

# 6.3.2 Has your country tried to solicit funds from, or seek partnerships with, other Governments, major donor organisations, industry, private sector, foundations or NGOs for marine turtle conservation activities? [IND]

■ YES 「NO

UNDP

The funding facility of Conservation International-Philippines (CI-P) was tapped for activities in the TIHPA. CI-P also purchased tags for the Pawikan Conservation Project.

Environmental Protection of Asia Foundation, Inc. (EPAFI) purchased 1,000 pieces of inconel tags and 10 pieces of tag applicators and donated the items to the Pawikan Conservation Project in 2005.

Small grant from Ford Foundation-Environment Fund was used for the conduct of IEC on marine turtle conservation in all public and private elementary and high schools in the

Through the Sulu-Sulawesi Marine Ecoregion, funding facitlities of WWF-Philippines and CI-P were tapped.

Through EPAFI, funding sources are being tapped to support conservation efforts in the province of Zambales and other important areas in the Philippines.

Local Government Resources- Province of Bataan, Davao Light and Power Corporation of the Aboitiz funded conservation activities in Davao City.

The Philippines has explored international funding support or other incentives for effectively managing marine turtle populations together with Sabah Parks of Malaysia. The PCP, together with Sabah Parks were awarded with the prestigious international award, the 20th J. Paul Getty Wildlife Conservation Prize of World Wildlife Fund in 21 April 1997.

### 6.3.3 Describe any initiatives made to explore the use of economic instruments for the conservation of marine turtles and their habitats. [BPR]

Soft loans given by the Local Government of Morong, Bataan to affected families but only for the first year of implementation.

In some protected areas, ecotourism activity has generated some funds -- not directly contributing to marine turtle conservation but contributing to the conservation of the whole protected area. There are some community-based ecotourism programs that are managed by Local Government Units which contribute to conservation and management activities.

In Zambales, through EPAFI, giving small amount of money in exchange for the conservation effort of some coastal people i.e reporting of turtle eggs.

The management of Batangas Union Industrial Park (BUIP) in Calaca, Batangas rewards those who bring accidentally captured live marine turtles or a clutch of eggs to BUIP Office in Calaca, Batangas with one half cavan of rice. Live turtles are tagged and released while turtle eggs are relocated into the hatchery inside the compound of BUIP.

6.4.1 Has your country designated a lead agency responsible for coordinating national marine turtle conservation and management policy? If not, when is this information expected to be communicated to the IOSEA MoU Secretariat? [IND]

#### **YES** NO

The Biodiversity Management Bureau (BMB), formerly the Protected Areas and Wildlife Bureau (PAWB) of the Department of Environmant and Natural Resources (DENR) is the lead government agency mandated to formulate and implement plans and programs for the conservation, protection, development and management of the country's wildlife resources.

### 6.4.2 Are the roles and responsibilities of all government agencies related to the conservation and management of marine turtles and their habitats clearly defined? [IND]

Based on existing national laws.

### 6.4.3 Has your country ever conducted a review of agency roles and responsibilities? If so, when, and what was the general outcome? If not, is such a review planned and when? [SAP],

**YES** INO UNSURE

RA 9147, the Wildlife Conservation and Resources Act was enacted in July 2001. The Law covers all wildlife species and protects and conserves threatened and endangered species including sea turtles. The Law places sea turtle under the jurisdiction of the DENR.

#### Comments/suggestions to improve the present reporting format:

#### Additional information not covered above: