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**MEMORANDUM OF UNDERSTANDING  
ON THE CONSERVATION AND  
MANAGEMENT OF MARINE TURTLES  
AND THEIR HABITATS OF THE INDIAN  
OCEAN AND SOUTH-EAST ASIA**

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8<sup>TH</sup> MEETING OF THE SIGNATORY STATES

Da Nang, Viet Nam, 21-25 October 2019

Agenda Item 9.1

**VIET NAM – NATIONAL REPORT 2019**

*(Prepared by Viet Nam)*

# IOSEA MARINE TURTLES MEMORANDUM OF UNDERSTANDING - NATIONAL REPORTING 2019

## IOSEA Marine Turtles MoU - National Reports

The purpose of completing the national report is to provide information on your country's implementation of the IOSEA Marine Turtle MoU including, as far as possible, contributions of cooperating non-governmental partners. Implementation will be assessed in terms of the six objectives of the Conservation and Management Plan (CMP). The online questionnaire is divided into these six main objectives, and asks specific questions in relation to the activities that need to be carried out to fulfil those objectives.

Please answer all questions as fully and as accurately as possible. It may seem time-consuming, but once you have completed the first report, the next time will be much easier because you can simply revise your existing report online. Comprehensive responses to the questions posed in Section 1.4 should satisfy many of the reporting requirements of the 2004 FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations, thereby avoiding duplication of effort.

Description text is provided below some of the questions to explain what information needs to be provided. Text boxes can be expanded to accommodate longer answers or to explain and provide additional information, beyond what is requested. Details of future plans are especially encouraged. Wherever possible, please try to indicate the source of information used to answer a particular question, if a published reference is available. Remember that you are sharing information with other countries about your progress, so that it may be of benefit to them. At the same time, you may find it useful to look at other countries' reports to get ideas for marine turtle conservation that might be adapted to your context.

When working on the online questionnaire, save your information by clicking on the "Save all" button inside each section. An auto-save feature also saves any changed responses every 30 seconds, and whenever you move between sections. Feel free to attach additional material (published reports, maps etc) to this questionnaire.

Throughout the questionnaire, alongside each question you will find one or more 3-letter abbreviations within square brackets. These are used to indicate the purpose for which the information provided will be used in the subsequent analysis of all of the national reports, as shown in the following table.

To some extent, the order in which these different types of information are listed below is a reflection of their importance - ranging from critical indicators of performance to factual details that are merely informative.

### **Abbreviation**

#### **Type**

#### **Treatment / Purpose**

IND

Indicator

The information provided serves, in and of itself, as a key indicator of successful implementation or of pre-requisites for same (eg. of core actions undertaken, resource availability, capacity etc.)

PRI

Priorities

The collective data will be synthesized to give an indication of what has been done already (helping to avoid duplication of effort); what is generally not being done (gaps that need to be addressed); and what interventions or specific assistance may be required.

TSH

Trouble-shooting

Particular implementation problems and issues (possibly of special interest to a small group of countries) are identified/highlighted with a view to stimulating remedial action in the short-term.

BPR

Best practice

Well-documented examples of best practices / success stories will be compiled and presented as approaches that other Signatory States might consider pursuing (ie adopting or adapting to suit their own circumstances).

SAP

Self-Appraisal

Self-assessment of effectiveness and completeness of actions undertaken – intended to stimulate reflection within a given Signatory State on what more could or should be done in relation to a particular activity.

INF

Information

The information will be collected and compiled, with little or no modification, mainly for purpose of sharing of information that could be of interest or value to other readers and/or other analyses.

## **GENERAL INFORMATION**

Signatory State:

Which agency or institution has been primarily responsible for the preparation of this report?

> Directorate of Fisheries  
Ministry of Agriculture and Rural Development  
No.10 Nguyen Cong Hoan street, Ba Dinh district,  
Hanoi, Viet Nam

List any other agencies, institutions, or NGOs that have provided input:

> Provincial Sub-Department of Fisheries (local Fisheries Authorities);  
Research Institute for Marine Fisheries (RIMF);  
Institute of Oceanography;  
Institute of Marine Environment and Resources  
Con Dao National Park; Nui Chua Natural Park; Bai Tu Long National Park;  
Cu Lao Cham MPA; Ly Son MPA; Hon Cau MPA; Nha Trang Bay MPA; Phu Quoc MPA;  
Sub-Department of Forest Protection (Provincial Authority);  
TRAFFIC international Viet Nam; IUCN Viet Nam; WWF Viet Nam; Humane Society International in Viet Nam  
Viet Nam Fisheries Society, Viet Nam Tuna Association

Memorandum in effect in Signatory State since (dd/mm/yyyy):

> 1 October 2001

This report was last modified (dd/mm/yyyy):

> 10 June 2019

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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

Please introduce and summarise, in an abstract of less than a page, the marine turtle populations and their habitats in your country. Comment on their status and highlight the main conservation challenges and achievements to date. It is not necessary to list here by name the individual nesting beaches, feeding areas and developmental habitats that are important for marine turtles in your country, as this information can be generated from the 'Site-Threat' data sheets to be completed in Annex 1. **[INF]**

> Viet Nam is a coastal country with about 3,260 km coastline and more than 4,000 islands. In addition, there are many beautiful coral reefs, seagrass meadows and sandy beaches located along its coast from North to South and around island providing ideally habitats for marine turtles.

There are five species of marine turtles found in Viet Nam, including Loggerhead (*Caretta caretta*), Olive Ridley (*Lepidochelys olivacea*), Leatherback (*Dermochelys coriacea*), Green (*Chelonia mydas*) and Hawksbill turtles (*Eretmochelys imbricata*). These five species of marine turtles are included in Vietnamese Red Book (2007), IUCN Red List of Threatened Animals (2011.1), listed on Appendix I of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and protected by the Biodiversity Law (2008), Fisheries Law (2017), Government's Decree No.160/2010/ND-CP and No.26/2019/ND-CP. They are currently being conserved by National Plan of Action on the conservation of Marine Turtles in Viet Nam for the period of 2016-2025 approved by the Minister of Agriculture and Rural Development (Decision 811/BNN-QD-TCTS of 14 March 2016).

++ Green turtle: Green turtle is the most common nesting species in Viet Nam. It is reported that the annual number of this species was estimated of approximately 1,000 individual per year in 1960s but dropped down to about 270 individuals in

2002. In the period of 2005-2010, the estimated number of female green turtle nesting on Viet Nam rookies was stable at about 300 individuals per year.

++ Hawksbill turtle: This species is relatively common in Viet Nam in the past. However, under the pressure of harvesting both breeding females at nesting sites and forging adults at feeding grounds are reduced in number over years. It is estimated that there are only one or two females now are still nesting at offshore and untouched beaches within Bai Tu Long bay, while nesting population in Con Dao is completely depleted.

++ Leatherback turtle: The number of leatherback nesting on the beaches is reduced dramatically, from about 500 individuals/year in 1960s but drop down to about 10 females/year in 2002. Only one beach in Trieu Lang commune (Quang Tri province) had the signs of nesting leatherback in 2005 and 2007 but no clutches data were recorded. Recently, there have been no record of leatherback turtle's nesting in Viet Nam

++ Olive Ridley turtle: Olive Ridley turtle were one of the most common species of marine turtle in Viet Nam few decades ago. Nevertheless, after a long period of overexploitation, until 2003 the number of breeding population fell to less than 40 individuals per season. The main reason for this phenomenon is the rapid economic development in the coastal areas such as tourism, fisheries and aquaculture, maritime expansion of industrial zones.

## 1.2 Best practice approaches to minimizing threats

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. **[BRP]**

### > 1. Local community involvement

From 2006 to 2010, three nesting locations have been controlled the beaches during the nesting season.

These activities were organized by IUCN Viet Nam (funded by US Fishes and Wildlife Services) and conducted by the local volunteers. (Cuong 2009, 2010, Cuong and The 2011). Efforts are being made to improve awareness, as well as the techniques to monitor and protect nesting females on local beaches. Nesting beaches monitoring program in Quang Ninh, Quang Tri and Binh Dinh province has had great involvement of the local community and governmental agencies through frequent educational and awareness meetings. After series of training course, all nesting beaches in the three provinces have been patrolled weekly by local people. As a result, in the recently seasons, none of the nests were collected in these areas.

During period from 2015 to May 2019, those activities with community involvements have been conducting in different coastal provinces of Viet Nam. Some non-government organizations' activities are summarized as followings:

IUCN Viet Nam also conducted local community awareness training programs regarding the value of marine turtle conservation.

TRAFFIC International in Viet Nam has been cooperating with D-FISH and other local NGO to facilitate the implementation of NPOA - Marine Turtles in Viet Nam since January 2018 under a project to combat the illegal trade of marine turtles financially supported by US Fish and Wildlife Service.

As project outcomes, the posters and billboards were produced and displayed to raise awareness of the illegality of killing, eating, and trading marine turtle parts and products to fishermen who might find marine turtles in by-catch. Several thousand posters were printed and hang in the galleys and heavily used areas of fishing boats to ensure visibility for fishermen. Tens of billboards were hung at fishing ports to remind fishermen on their way out to sea and back to port of the personal hazards of trafficking marine turtles.

Posters and billboards additionally provide phone numbers for law enforcement. Collaborative action between NGOs, D-FISH, and law enforcement with regards to reporting marine turtle trade has been increased. In order to provide law enforcement and stakeholders a clear picture of the current market for marine turtles and to understand trends in the market, TRAFFIC is going to conduct a market survey for marine turtle parts and products in coastal areas and in tourist hotspots, a follow up to TRAFFIC Viet Nam's survey of marine turtles in 2009.

TRAFFIC Viet Nam together with local NGOs (e.g. Education for Nature - Viet Nam) organized the meetings with national competent authorities to present information regarding significant enforcement efforts in provincial coastal areas, of which they had not been previously unaware. Information presented at the meeting allowed TRAFFIC and competent authorities to show progress towards the implementation of the NPOA - Marine Turtles.

WWF Viet Nam has been implementing the "Fisheries Improvement Project (FIP) for yellow fin tuna long line and handline fisheries" in Central provinces of Viet Nam since 2014. The project mainly focuses on (1) Disseminate to fishermen the marine turtle conservation of in the marine capture fisheries; (2) Coordinate with enterprises to distribute C-hooks to fishermen; (3) Train observers on marine turtle conservation and rescue of unexpectedly hooked turtles; (4) Appoint observers on board of fishing vessels to record information about impacts of tuna fisheries on marine turtle; (5) Rescue unexpectedly hooked marine turtles. During 2015-2019, over 40 observers were trained; more than 50 fishing trip were conducted with observers onboard; and nearly 20 marine turtle individuals were rescued.

WWF Viet Nam and Viet Nam Tuna Association are going to deliver 25,000 C-hooks to tuna fishing vessels and organize 2 training courses for fishermen in the key Central tuna fisheries provinces of Viet Nam in 2019.

Humane Society International in Viet Nam (HSI) in 2018 in collaboration with IUCN Viet Nam, Live and Learn Viet Nam and Quang Ngai Provincial Youth Union conducted Refill not Landfill program to (1) dialogue with SMEs on awareness of minimizing the usage of plastic bottles in Ly Son island; (2) raising awareness of secondary school students on legislation and conservation of endangered species, particularly marine turtles; (3) other events and trainings on marine turtle conservation for local enterprises, communities and other stakeholders. HSI has cooperated with MARD CITES Management Authority and the Department of Student Management of the Ministry of Education to develop a document on endangered species (including marine turtles) for primary school students for pilot dissemination in 10 provinces.

Education for Nature - Viet Nam (ENV), in 2017 and 2018, in cooperation with Con Dao National Park Management Board, constructed 5 billboards to disseminate new crime penalty regulations, initiated marine turtle friendly business commitment with restaurants and shops in Con Dao island. ENV has established a hotline to receive information on illegal trade and infringements relating to marine turtles and then notified the competent authorities and enforcement forces for handling the violations. ENV has also launched a number of awareness raising programs against illegal marine turtle trafficking and trade.

## 2. Education and environmental awareness

During 2015-2018 period, DFISH had conducted 2 consultation workshops and 02 training workshop on identification and rescues of marine turtle, in collaboration with WWF Viet Nam had conducted a number of training courses and activities for tuna fishermen, provincial fisheries administration and other related people with objectives to raise marine turtle protection awareness, responsibilities and improve their knowledge and rescue skills, and to consult stakeholders (fishermen, fishing vessel owners and captains, middlemen, processing establishments, fisheries associations, researchers and scientists, fishing port managers, local competent authorities) about effective measures to reduce by-catch, prevent illegal holding, trafficking and trade of marine turtles. In 2019, WWF Viet Nam continues to collaborate with Viet Nam Tuna Association to convene training courses, events and activities for tuna fisheries stakeholders in central provinces of Viet Nam.

In June 2018, DFISH, with supports from TRAFFIC International Viet Nam (financial supported US Fish and Wildlife Services) and the Institute of Oceanography held the national workshop on marine turtle conservation with the objectives to report research and protection efforts, discuss recommendations, measures and future activities to improve marine turtle protection and conservation.

In 2019, Viet Nam Institute of Fisheries Economics and Planning is conducting a communication program on marine turtle conservation funded by MARD.

In 2018 and 2019, DFISH has constructed panels at fishing ports and MPA of 6 key provinces and printed 3,000 posters (with partly financial support of TRAFFIC International Viet Nam) for display in fishing vessel's cabin (of high impact fisheries e.g. trawling, gillnetting, purse seining) on marine turtle rescue and conservation.

In addition to those activities implemented by D-FISH, NGOs and Research Institutes, MPA management boards have been conducting hundreds of training courses, communication and awareness raising activities on marine turtle protection and conservation for fishermen and communities living in and around the MPAs.

## 3. Marine protection areas

Marine Protected Areas (MPAs) have been play a crucial role in marine turtle conservation, particularly protecting coastal ecosystems and providing good foraging and laying habitats, and may be keeping them safe from the threats of fishing. On 26 May 2010, the Prime Minister issued the Decision No. 742/QĐ-TTg approving the Viet Nam marine protected areas network to 2020, in which 16 marine protected areas will be established in the period 2010-2015 and the planning and expansion will be implemented in the period 2016-2020. At present, 10 marine protected areas have been established, namely: Bach Long Vi and Cat Ba

Naitonal Park (Hai Phong city), Nha Trang Bay (Khanh Hoa province), Cu Lao Cham (Quang Nam province), Phu Quoc (Kien Giang province), Con Co (Quang Tri Province), Hon Cau (Binh Thuan province), Ly Son (Quang Ngai province), Nui Chua National Park (Ninh Thuan province), Con Dao National Park (Ba Ria - Vung Tau province), Bai Tu Long National Park (Quang Ninh province). The key MPAs for marine turtle breeding populations are Con Dao National Park, Bai Tu Long National Park, Nui Chua National Park, Hon Cau and Nha Trang MPA; and for foraging populations are: Bach Long Vy (Hai Phong), Phu Quy (Binh Thuan), Phu Quoc (Kien Giang) and Nam Yet (Khanh Hoa). Of these MPAs, Con Dao National Park is particularly important MPA for marine turtle conservation, both foraging and breeding populations.

\* Con Dao National Park:

Con Dao National Park is a natural reserve area located in Con Dao Islands of Ba Ria-Vung Tau province in coastal southeastern Viet Nam. The park includes a part of the island and the surrounding sea. The national park is characterized by a diversified ecosystem. Many species of corals and especially marine turtles are found here. This is the biggest rookery for Green turtle nesting population in Viet Nam. Although both green marine turtles and hawksbill turtle have been recorded nesting on Con Dao island, green marine turtle nesting is more common, no hawksbill turtles nesting having been recorded in recent years, albeit with their occurrences in Con Dao waters. For the green turtles, the average number of nests per season is approximately 1,500, with the highest number of nests laid of 2,455 in 2016. The annual average for green turtles that contributed to this nesting effort is approximately 500 individuals per season. Figures 1 summarize the annual nesting abundances of green turtles breeding at Con Dao National Park since 1994.

The Park has 14 nesting locations along 3,5km coastline of 24 hecta which continuously patrolled and protected by Rangers during spawning season. Regulations, technical guidllines on marine turtle conservation was adopted by the Management Board. 5 stations were established in 5 locations having high number of spawners. All nesting location are cleaned by removing debris and obstacles and minimizing impacts on spawning (e.g. noises, light during the night, docking and deploying fishing nets...) in order to fecililate the egg spawning.

During the night of high tide, the nests are located, collected and transplanted to artificial hatcheries. Right after hatching, marine turtle are release to seas. Since 2015, the Park has been rescuing 6,759 nests, hatchling 615,295 eggs, and releasing 500.293 marine turtles to seas. In the Park, a green turtle spawner was observed to spawn 3 times per year and 80 eggs per spawn during July to September. Reproduction cycle between 2 spawning seasons is 2 to 5 year.

Project "Transplanting, recusing turtle eggs and hatchlings to restore the turtle population in Con Dao in dealing with climate change in the period of 2017-2020" is supported and funded be People's Committee of Ba Ria - Vung Tau Province. All of marine turtle eggs are collected and transplanted to artificial hatcheries with fencing by the CDNP officers. This activity keeps turtle eggs being protected from illegal collectors and rising sea level. Also, 60% area of the hatcheries are shadowed to maintain the optimal temperature for turtle nests to balance the sex ratio. Camera surveillance will be installed at the hatcharies this 2019.

Satellite Telemetry: In 2006, satellite tracking of green turtle populations was conducted for the first time in Vietnam. 04 satellite transmitters were tagged to green turtle nesters in Con Dao in the project, namely, "Vietnam marine turtle tracking". The project was being led by the WWF Vietnam Country Programme, in partnership with IUCN Vietnam, the Vietnamese Ministry of Fisheries, Con Dao National Park, with support from the Danish Embassy (DANIDA) and with technical assistance from the Marine Research Foundation (Pilcher, 2018).

The satellite tracking results showed that the probable feeding areas for green marine turtles are within the water of Palawan Island (Phillipine) Phu Quy Island (Vietnam), and Truong Sa island (Vietnam).

The Park initiated the conduction of enhancing public awareness program through lectures on marine turtle conservation for students, local community, tourists, visiting fishermen from other provinces fishing in Con Dao area. Approach to each group uses different propagation contents and methods. The activities include school curriculums, propaganda campaigns, quiz contests, training courses, leaflet, poster etc. on the importance of biodiversity conservation and sustainable use of natural resources.

- Tourists visiting the Park are oriented and get involved in the monitoring of nests, tagging, transfer of eggs into the hatchery and release of turtle hatchlings. This program was greatly appreciated by the tourists.

- The Management Board encourages communities to sustainably use natural resources by participating in eco-tourism activities and to switch to alternative incomes with less impact on biodiversity. Community has shifted from near-shore fishing to tourist transportation, trade, bee keeping, and guest houses for tourists. Capture fisheries are allowed in the development zone with traditional methods. Guide boats, tourism ships are discouraged from anchoring directly on coral reefs, or sea grass, and instead are tied to the fixed moorings. The development of low impact tourism products that has less impact on wetland biodiversity such as swimming and diving for coral reef watching, observation of marine turtles laying eggs etc. are encouraged.

- Communities' consultation in biodiversity conservation planning is encouraged to develop the regulations for conservation of marine resources in Con Dao.

- Twice a year, the Park, together with local people and agencies, organizes events of collecting and treating ocean debris in the islands. These events not only contribute to a healthy marine environment but also raise locals' awareness of environment preservation and protection.

- Co-operation with other NGOs (e.g. IUCN Vietnam, Education for Nature - Vietnam) to run marine turtle conservation campaigns, such as Organizing volunteer teams to conserve marine turtles; establishing Turtle

Safe Zones in restaurants, hotels in Con Dao island...

Until May 2019, the Management Board in collaboration with NGOs (e.g. Education for Nature - Viet Nam, Wildlife at Risk) has organized events (exhibitions, painting contests), training for volunteers, printing an educational document of marine conservation for secondary school students in the Island, distributed posters and constructed panels on marine turtle conservation, implemented the program "marine turtle safe zones" for 55 restaurants and shops in the island.

\* Nui Chua National Park:

Nui Chua National Park is a national park in the province of Ninh Thuan Province close to the neighbour province of Khanh Hoa, Southern Central Viet Nam. Nui Chua National Park is a very special and unique area and is one of the priority areas for nature conservation in Viet Nam. It is one of the few remaining sites in Southeast Asia where the coastal and marine habitats are still in relatively good condition with unique semi-arid vegetation, coral reefs and sea turtle nesting beaches.

The park established an animal rescue center within the Park to receive marine turtles from fishermen, restaurants, Center for conservation of Biodiversity and Endangered Species, local provincial authorities... for nursing, healing, and releasing to seas finally. Since 2015, 16 individuals have been rescued and released to seas.

From 2015 to May 2019, there were 58 nests with 4,877 eggs and 3,364 marine turtles were released to seas by the Park. The Park also established facility for hatchling eggs, research and monitoring marine turtles and conducted training on marine turtle conservation for its staff.

The Park has organized training course on the protection and conservation, prohibited activities, law and regulations related to marine turtles for stakeholders, particularly local fishermen; conducted propaganda and communication program on publish media such as local and national TV channels.

\* Bai Tu Long National Park:

Bai Tu Long National Park is a protected area zone in Quang Ninh province, Northeastern Viet Nam. It was established in 2001, succeeding from the former Ba Mun National Conservation Zone. It is one of seven Vietnamese amphibian national parks which have both terrestrial zone and aquatic zone. The number of nesting marine turtle here is very few, but most of the nesting beaches are still protected by the Park Management Board and local competent authorities.

The Park has received from local authorities and fishermen, rescued and released 21 individuals to seas; organized monitoring nesting and spawning activities within the Park during spawning season from May to September.

The Management Board in collaboration with NGO and local authorities organized 08 training courses and workshops to raise community awareness on marine turtle conservation for local fishermen, enforcement forces, local authorities, teachers and students...; distributed 500 posters, printed and displayed 15 different types of panels at restaurants and constructed 8 big size panels on marine turtle conservation.

The Park conducted an assessment of marine turtle populations and developed chart and map of marine turtle distribution in and around the Park.

The group of volunteers including at least 3-4 local fishermen is maintained to enhance fishermen' awareness and responsibilities on marine turtle protection, rescues and monitoring nesting activities within the Park.

\*Nha Trang Marine Protect Area:

Nha Trang Bay Marine Protected Area (MPA) in Khanh Hoa province is the first comprehensively developed and managed MPA in Viet Nam. This MPA has internationally important coral reefs with the highest coral biodiversity recorded in Viet Nam. Despite the pressure from economic development, Nha Trang Bay retains some of the very few intact coral reefs in Viet Nam. Although the number of Green turtle nesting in some offshore islands of Nha Trang Bay is few, they are very important and highly protected.

The Management Board in collaboration with a Khanh Hoa Bird Net JSC Company and local fishermen to identify nesting areas, remove constructions and lightings out of nesting areas, construct panels on marine turtle conservation within the MPA.

The training on marine turtle conservation and skills of collecting turtle eggs from nests in military restricted areas was conducted in 2018 for stakeholders and staff.

\* Cu Lao Cham MPA

Cu Lao Cham MPA are consisting of coral reefs having typical structure and characteristics similar to those of Tonkin Bay. Marine biodiversity in the MPA is very high. The MPA is the area acting as refugia for many marine species. Cu Lao Cham is the unique island landscape with steep cliffs, and sandy beaches which are valuable for tourism development. Beautiful underwater landscape with clear blue water, diverse tropical marine ecosystems, colorful are valuable to develop diving and adventure tourism.

In 2017 and 2018, MPA conducted surveys and consultations from local coastal communities to identify the areas used to be of marine turtle nesting and foraging in Cu Lao Cham and 16 coastal communes. Even though a number of coastal areas have been changed for different purposes, some certain locations are still good conditions for their nesting with reduction of impacts from human activities. The MPA has been implementing activities of restoration and protection of their habitats, particularly seagrass meadows and foraging and pollution reduction.

In the attempt to improve marine turtle conservation, in 2017 and 2018, the MPA has transferred 1,400 turtle, *Chelonia mydas*, natural 40-day-incubated eggs (hatching rate over 90%) from Con Dao National Park by MARD permission. In 2019, additional 500 turtle eggs are transferred to the MPA as research project "Conservation and Restoration of Marine Turtles in Cu Lao Cham Marine Protected Area" funded by Quang

Nam Provincial People's Committee.

The MPA has provided training and communication on laws and regulations, marine turtles' roles, importance and conservation challenges; plastic debris and their harmful impacts on marine turtles; efforts of the MPA, local communities, authorities and military forces, NGOs and research institutes on marine turtle conservation and protection;

Hoi An City People's Committee adopted the Plan of Action on marine turtle conservation in Cu Lao Cham MPA (2016-2025 and vision to 2040) with specific tasks: (1) establish, manage and protect foraging and nesting sites; (2) Comprehensive strengthening of conservation capacity; (3) ex-situ conservation of marine turtles; (4) Minimize factors impacting and killing marine turtles; (5) Raising community awareness and training profession staff on marine turtle conservation; and (6) Enhance international and domestic cooperation.

**\* Phu Quoc MPA**

Located in the east Gulf of Thai Lan and 40km away from west coast of Viet Nam, Phu Quoc MPA was first established in 1986 by the Chairman of Minister Council and in 2007 by the Chairman of Kien Giang Provincial People's Committee. The MAP consists of coral reefs, seagrass meadows, mangroves and many valuable and endangered marine species. Seagrass meadows are mainly located in the west of Phu Quoc island and Hon Thom island of about 12,000 hecta areas. There are 15 endangered species including 2 marine turtle species, of which *Eretmochelys imbicata* was observed to forage and nest at Phu Quoc islands. However, their nesting has been considerably reducing recently.

During 2015-2017, Phu Quoc MPA was released 30 individual marine turtles to seas. In 2018, 52 individuals were released to seas. The MPA cooperated with the local competent authorities to patrol and handle infringement related to marine turtle trafficking and trade, of which 2 criminal cases were prosecuted.

The MPA constructed 15 big size panels on marine turtle conservation at locations in and around the MPA where turtles are often observed and at tourism areas.

In 2018 and 2019, the MPA, collaborating with WWF and IUCN, has been implementing plastic debris reduction project of "Phu Quoc - Toward plastic waste free island" and training on plastic debris monitoring in Phu Quoc island.

**\* Hon Cau MPA**

Hon Cau MPA is located in sea area of Binh Thuan province and established in 2010 by the Chairman of Binh Thuan Provincial People's Committee. The sea areas around Hon Cau island is of high biodiversity with coral reefs nearly 200 coral species and seagrass meadows within lagoons close to its coral reefs. Marine turtles have been observed to forage and nest in the MPA.

During 2015-2019, the MPA detected 44 nests in Hon Cau island with 4,063 eggs, of which 3,263 hatched. In 2018 and 2019, the MPA received from fishermen and NGOs, rescued and released 11 individuals (Green and Hawksbill turtles) to seas. The MPA are 24/7 patrolling and protecting foraging and nesting areas during their spawning season from May to November. 200 square meter hatchling areas are reserved and protected for turtle eggs collected from nesting locations in the island.

In 2016-2018, the MPA was implementing the project "Marine Turtle Conservation for Ecotourism Development with the Community Involvement in Hon Cau MPA, Binh Thuan province" funded by GEF-SGP. Since 2015, the MPA in collaborate with IUCN Viet Nam has been implementing the program "Protection of marine turtle nesting with Community Involvement" and marine turtle volunteer program.

**\* Ly Son MPA**

Ly Son MPA was established in 2016 and operated in 2017. The MPA has been implementing the project "Marin Turtle Conservation with Community Involvements" funded by IUCN Viet Nam since 2017. The group of conservation volunteers was founded by the Management Board. The patrol has been implemented by the MPA, provincial Sub-Department of Fisheries, Border Police and Coast Guard, particularly during the spawning season.

The MPA has conducted 8 training courses on marine turtle conservation for fishermen and 2 training courses for MPA staff and competent authorities' officials, 02 training courses for secondary school students in Ly Son island and other awareness raising activities as well.

## **1.3 Programmes to correct adverse economic incentives**

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]**

Elaborate on the nature of the socio-economic study/ activity undertaken, the results obtained (successful or otherwise) and the desirability/ suitability for replication.

Include references to published reports, where available.

- > - Collaboration with NGOs, international and regional institutions to organize training courses/ workshops for fisheries officials and other stakeholders regarding to the interactions between Marine Turtles and Fisheries with Ecosystem Approach to get better Fisheries Management;
- Identification of the relative importance of fisheries related mortality of marine turtles as compared to other natural and human-induced sources of mortality;
- Survey of the conservation status of the marine turtle populations;
- Collection of the provincial situation of marine turtle by-catch in coastal and offshore fisheries;
- Fisheries management actions and tools to reduce marine turtle mortality;
- Gather of marine turtle population data, including distribution, main sources of human-made and natural



mortality;

- Estimation of the relative importance of fishery-related mortality through annual provincial report;
- Identification of data gaps and provision of guidance on existing programmes to improve information and knowledge;
- Creation of chances for fishermen to shift to aquaculture and alternative operations;
- Promotion of ecotourism at selected sites;
- Creation of artificial reefs at some priority areas;
- Modification and installation of selective fishing gears to reduce their impacts on marine turtles;
- Set up of Monitoring, Surveillance and Control (MSC) Centres in relation to indicators of the marine environment at national level.

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

#### [TSH]

Others (Please describe)

> ++ Shrimp aquaculture on sandy beaches:

The most important and obvious threat to the nesting habitats of marine turtles in this area is the shrimp farming on beaches. This aquaculture method had been introduced in the Central provinces since early 1990s and seemed to be very effective in few first years. As a result, it has been recommended by government organizations and expanded from small and experimental scale to industrial scale. Shrimp ponds could be found in almost all beaches, from extensive farming in family scale to well projected, intensive farming in industrial scale. The most abundance was in Quang Tri, Quang Ngai and Binh Dinh respectively. The impacts of this aquaculture technique to environment and biodiversity have been proved by many researches, such as changing the underground water system (fresh underground water should be taken locally to reduce the salinity of shrimp ponds), waste water (which contains many chemical elements, anti-biotic, organic substances etc.) discharged directly to the sea etc. Besides, these ponds are located on high tide areas, where might also be nesting places of marine turtles. The development of shrimp ponds, therefore, affects the breeding populations of marine turtles in the Central provinces of Viet Nam.

++ Marine pollution and marine debris:

The number of fishing vessels in Viet Nam has increased significantly in the last three decades. Associated with this increase, there has been an increased marine pollution such as oil/fuel residue, debris (including plastics, discarded net and other materials). Among them, marine debris is the strongest negatively affected marine turtle populations through ingestion, entanglement, injury, obstruction or by degrading their foraging or nesting habitats. Marine pollution does not only impact on marine turtles but also threaten the health of marine ecosystems such as coral reefs and seagrass meadows. Beside, coral reefs had long suffered from explosive and cyanide fishing practices in the past and seagrass habitats had experienced decades of clearing, harvesting, sedimentation etc. However, the data and information of those issues is limited and insufficient.

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

Yes (If yes, please describe these measures in detail)

> Low interest rate loan for shifting from fishing to aquaculture and other alternative livelihoods.

SEAFDEC/ international and local NGO/research institute financial supports to promote funding, capacity building and human resource development;

Marine turtle conservation projects have been being funded by the Government of Viet Nam and donated by donors through NGOs and/or by direct funding and technical supports

Regional collaborative exchange programs, such as study-tours, training, symposium and twinning workshops regarding marine turtle conservations.

## 1.4 Reduction of incidental capture and mortality

### 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 and interact with marine turtles.

Tick 'YES' to indicate that a fishery is present and interacting marine turtles or 'NO' to indicate that a fishery is not present or is not interacting with marine turtles. [INF]

If a fishery is present, use the text box to indicate, for example, the approximate geographic distribution of the fishery, how long it has been operating, how many vessels are involved, etc.

a) Shrimp trawls:

Yes (Please provide details)

> a) Shrimp trawls: Shrimp trawlers are small in size and most of fishing boats installed with main engine of less than 90HP capacity. This fishing fleet normally operates in shallow water, from 20 to 60m depth, at distances from 15-60 nautical miles offshore.

The fishing seasons: (1) The Northeast monsoon season from October to March of next year; and (2) the

Southwest monsoon season from April to September. The total catch from the Northeast monsoon season is higher compared to the Southwest monsoon season.

\*Fish trawls:

High towing speed is required to operate this gear type effectively, so medium to large size vessels typically employ this fishing gear. Single trawlers are often not able to maintain a constantly high towing speed, causing low catches, so many fishers have changed to a pair trawling pattern. Fish trawls commonly have a head rope length of 30 to 36m, an overall length of 40 to 70m, and a stretched mesh at cod-end from 18 to 30mm.

b) Set gill nets:

Yes (Please provide details)

> Set gillnetters have been operating all year round (nearshore and offshore) with short fishing trip (daily to weekly period). The catch is dominated by pelagic and demersal fish. According to a survey in Khanh Hoa province in 2006, there were 675 gillnetters operating in that fishing area. The capacity of engine power ranges from less than 20 HP to 400 HP.

Boats of small size and engine power less than 90HP normally operate in shallow water, from 20 to 60 meter depth, at distances from 15-60 nautical miles offshore.

Gillnetters cannot simply change gear, more complicated. Options to reduce incidental capture and mortality include:

a. awareness raising and support for reducing marine turtle mortality;

b. support to gillnet fishermen for releasing marine turtles and/or rescue techniques;

c. identification of management options (report in 2009) that looks at feasibility of seasonal, temporal or other measures such as "smart fishing" methods.

Fishing seasons follow two monsoons:

- The Northeast (from October till next January) and

- The Southwest (from February till September).

Based upon the given information, the total catch during Northeast Monsoon is higher than that of Southwest, but the incidentally-caught marine turtles are less during the Northeast Monsoon.

For tuna fisheries, the main fishing season is from December to next June; big vessels may operate all year around. Normally, from December to "Tet" holidays (Lunar New Year, usually in February), two fishing trips are done around Truong Sa (100 deg -130N deg) and from Lunar New Year Holidays of "Tet" to June, another 5-6 trips are conducted (from Tet to April: beyond 140 deg N, April to June or later: 70 deg - 100 deg N).

c) Anchored Fish Aggregating Devices (FADs):

No (Please provide details)

> No information available

d) Purse seine (with or without FADs):

Yes (Please provide details)

> Purse seiners have been operating half year with short fishing trip (daily to weekly period). The catch is dominated by pelagic and demersal fish. According to a survey in Khanh Hoa Province in 2006, there were 1,395 purse seiners operating in that fishing area. The capacity of engine power ranges from less than 20 HP to 400 HP.

Boats of small size and engine power less than 90HP normally operate in shallow water, from 20 to 60 meter depth, at distances from 15-60 nautical miles offshore.

Fishing seasons follow two monsoons:

- The Northeast (from October till January) and

- The Southwest (from February till September).

Based upon the given information, the total catch during the Northeast Monsoon is higher than the Southwest, but the incidentally-caught marine turtles are less during the Northeast Monsoon.

e) Longline (shallow or deepset):

Yes (Please provide details)

> For tuna fisheries, the main fishing season is from December to June; big vessels may operate all year around. Normally, from December to "Tet" holidays (Lunar New Year, usually in February), two fishing trips are done around Truong Sa (100 deg -130N deg) and from Holiday "Tet" to June, another 5-6 trips are conducted (from Tet to April: beyond 140 deg N, April to June or later: 70 deg - 100 deg N).

f) Driftnet:

Yes (Please provide details)

> Coastal driftnets: in the past, the number of fishing vessels over 90HP increased very quickly in all three Central provinces, especially drift net and long-line vessels for targeting oceanic tuna. The fishing grounds for this fisheries are offshore areas, deeper than 60m and more than 70 nautical miles offshore, around the Paracel and Spratly archipelagos, offshore waters of Central provinces (from Da Nang to Binh Thuan) and southern waters of Southeast China Sea.

Fishing seasons follow two monsoons:

- The Northeast (from October till January) and
- The Southwest (from February till September).

Based upon the given information, the total catch during the Northeast Monsoon is higher than the Southwest, but the incidentally-caught marine turtles are less during the Northeast Monsoon.

g) Others (Please provide details)

> Not applicable

> Not applicable

h) None of the above (Please provide details)

> Not applicable

**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]. Select from one of the following descriptions: RELATIVELY HIGH, MODERATE, RELATIVELY LOW, NONE (i.e. not present), UNKNOWN (i.e. unable to answer for whatever reason).**

a) Shrimp trawls

*Please select only one per line*

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
Fishing efforts:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> Information was based on the phase one report of the project entitled "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine turtle Interactions in Vietnamese Fisheries" which conducted by the Government of Viet Nam and WWF Viet Nam.

It was reported from Phu Yen province that both single and pair trawls may incidentally catch marine turtles, even though there was no official data about this issue.

According to the survey in three provinces of Khanh Hoa, Phu Yen, and Binh Dinh, the average number of incidental catch of marine turtles by trawls (25 vessels) per year was 12.5 turtles. Weight varied from 2 to 65 kg. Green, hawksbill, leatherback, and unknown species were trapped by trawlers.

b) Set gill nets

*Please select only one per line*

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
Fishing effort:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> Information was based on the phase one report of the project entitled "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine turtle Interactions in Vietnamese Fisheries" which conducted by the Government of Viet Nam and WWF Viet Nam.

85% of marine turtles caught in gillnets were alive, when surfaced, and only 15% were dead. On average, each year, 5 to 10 turtles were entangled by individual gill net boats (operated 10 months/year).

According to the survey in three provinces of Khanh Hoa, Phu Yen, and Binh Dinh, the average number of incidental catch of marine turtles by gillnetters (16 vessels) per year was 9.6 turtles. Weight varied from 3 to 40 kg. Green and hawksbill were entangled by gillnetters.

The information provided a good foundation for developing a management options paper; however, more community interviews and province-level data collection needs to be collected.

c) Anchored Fish Aggregating Devices (FADs)

*Please select only one per line*

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
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Fishing effort:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> No information available

d) Purse seine (with or without FADs)

Please select only one per line

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
Fishing efforts:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> Information was based on the phase one report of the project entitled "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine turtle Interactions in Vietnamese Fisheries" which conducted by the Government of Viet Nam and WWF Viet Nam.

According to the survey in three provinces of Khanh Hoa, Phu Yen, and Binh Dinh, 16 purse seiners were surveyed. However, there was no reliable data on incidental catch.

e) Longline (shallow or deepset)

Please select only one per line

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
Fishing effort:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> Information was based on the phase one report of the project entitled "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine turtle Interactions in Vietnamese Fisheries" which conducted by the Government of Viet Nam and WWF Viet Nam.

The proportion of marine turtles incidentally caught by long-liners is likely higher than by gillnetters. On average, each year, 10-15 turtles were caught by lines (line operated 4 months/years).

The information obtained provides a good understanding of hotspot fisheries and/or provinces, as a foundation for future Observer Program.

f) Driftnet

Please select only one per line

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
Fishing effort:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> No information available

g) Others (from 1.4.1 g) )

Please select only one per line

	UNKNOW N	NON E	RELATIVELY LOW	MODERAT E	RELATIVELY HIGH
Fishing effort:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perceived impact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Source of information / clarification

> No information available

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]**

> No information available

#### **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 (Details/future plans)

> The use of simple de-hooking and line-cutting devices on long-liners could significantly reduce marine turtle by-catch in the hotspot region. However, further training, distribution of awareness raising materials, and supported hardware, and development of official marine turtle rescue guidelines are required.

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

YES (Details/future plans)

> TEDs were developed and tested with trawlers and currently considered to be required in Vietnamese trawl fisheries

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

UNDER INVESTIGATION or NOT APPLICABLE (Details/future plans)

> No information available

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

YES (Details/future plans)

> - Convert J-hooks to circle hooks (C-hooks)  
- Control the mesh-size and net length  
- Enhance the enforcement of the Fisheries Law and other related national laws and regulations

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

UNDER INVESTIGATION or NOT APPLICABLE

> No information available

f) **Net retention and recycling schemes**

YES (Details/future plans)

> Currently, the National Plan of Action on the management of marine debris is being considered by the Prime Minister. MARD will develop the plan to manage marine debris in the Fisheries sector that shall include measures and solutions to the reduction of marine rubbish from aquaculture and capture fisheries.

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

YES (Details/future plans)

> Spatial and temporal control of fishing have been being implemented but still low and weak enforcement. However, seasonal closures of fishing activities are applied in some certain sea areas, especially at MPA and NP boundaries, for the purposes of aquatic resource protection.

h) **Effort management control**

YES (Details/future plans)

> \* Protection of Critical habitats  
----Nesting sites (Marine Protected Area/network of MPAs)  
----Inter-nesting areas (MPA, regulations of coastal fisheries, sea transportations closed to the nesting beaches)  
----Foraging sites (MPA, fisheries regulations)  
\* Ban of trafficking and commercial trades through effective enforcement systems (protected species Act) as well as reduction of turtle demands and consumptions (behavioral changes)  
\* Mitigate by-catch at sea (coastal and off-shore) - fisheries regulations  
----Field research and observer program  
----On-board release handlings

-----Gear adjustment/modification

-----Temporal closure - -

-----Cross country/regional/internal collaborations (relevant fisheries management measures)

#### **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]**

Please use the corresponding text boxes to explain/clarify each of your responses, including 'NOT APPLICABLE' responses, and indicate future plans in this regard. [IND]

Please describe the collaboration, when/where the programmes were introduced, any difficulties encountered, and general results obtained (i.e. successful and unsuccessful). Provide references to publications, where available.

##### **a) Onboard observer programmes**

X

YES (Details/future plans)

> There is strong potential for developing near future Observer Program and future experimental trials of gear replacement (i.e. circle hooks) in the priority provinces, in terms of national, provincial and community support and willingness to become involved.

Phase two of "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine Turtle Interactions in Vietnamese Fisheries" project will focus of the implementation of a first-of-its-kind Observer Program in the long-line fleet, in order to ground-truth data, determine baseline on catch rates for target fish and for by-catch, as well as socio-economic parameters (2008-2009).

Plan:

1. Design and implement Observer Program with fishing communities and government authorities
2. Consider first deploying pilot program of smaller size and scope
3. Implement comprehensive training before full Observer Program

##### **b) Vessel monitoring systems**

YES (Details/future plans)

> VMS has been developed for offshore fishing vessels (3,000 units by satellite technology and over 10,000 HF devices) but not for the purpose of marine turtle conservation in particular.

According to Fisheries Law 2017, VMS devices are required to be installed on the fishing vessels of 15m in length and over as one of the counter-measures to combat IUU fishing in Viet Nam. Government Decree No. 26/2019/ND-CP of 08 March 2019 regulates that all fishing vessels of 15m in length and over must install VMS devices before 01 April 2020 (Article 44) and certain technical requirements.

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

YES (Details/future plans)

> In the previous period, there were three port facilities for the disposal of ship-borne waste at Quang Ninh, Hai Phong and Ho Chi Minh City. However, waste has been re-used by some private companies nearby to make new kinds of steel for re-producing house skeletons and other useful materials.

According to Fisheries Law 2017 and legal documents instructing the Law implementation, there are different sorts of inspections activities at fishing ports and at sea by enforcement forces but not particularly for marine turtle conservation purposes. The inspection at fishing ports are considered as one of the counter-measures to combat IUU fishing in Viet Nam.

##### **d) Training programmes / workshops to educate fishers**

YES (Details/future plans)

> Successful outcomes from the workshops were the close collaboration of fishing representatives from local authorities and fishermen to work with relevant partnerships in looking at feasible ways to reduce marine turtle by-catch, under a comprehensive framework that includes solid baseline, data collection and next Observer Program.

One of the outcomes of the National Workshop on Marine Turtle Conservation in June 2018 organized by DFISH, TRAFFIC and the Institute of Oceanography is that training on identification and rescue of marine turtles is essential in the coming years.

DFISH organized a number of regional training workshops on identification and rescue of marine turtles, consultation workshops for fishermen, captains, fishing vessel owners, local officials and MPA staff directly involving in marine turtle rescues in Central and Southern key provinces. At local level, MPA Management Boards convene many training course and workshop for local fishermen to raise awareness on marine turtle protection, marine environment pollution, sustainable marine turtle conservation based ecotourism and

responsible fisheries.

NGO e.g. WWF, IUCN, Viet Nam Tuna Association have also organized training courses and workshops on marine turtle for fishermen and other stakeholders.

**e) Informative videos, brochures, printed guidelines etc.**

YES (Details/future plans)

- > - Wildlife conservation programs (including marine turtles) on public media, particularly national TV
- Circulation and propagation campaigns with the booklet, leaflet, posters, brochures, billboards
- Public education at some selection of coastal provinces
- Local community participations in marine turtle conservation campaigns and programs
- Enforcement of national regulations and handling illegal activities mainly by fisheries resource surveillance force, border police, coast guard, and naval forces.

- Other OR none of the above

Other (list and explain):

> Policies to limit fisheries operations at coastal water areas in order to reduce fishing pressure on fish resources.

Development of sustainable marine capture fishery programs in offshore waters

Program on the rehabilitation of East-Sea environmental degradation.

National Program on Protection of Fishery Resources

National Plan of Action on Marine Turtle Conservation

Establishment and Expansion of the National Marine Protected Areas System and Wetland Network

(Government set up an objective to conserve and protect 6% of total natural marine area of Viet Nam till 2030 and vision to 2045)

Implementation of Fisheries Refugia Project (funded by UNEP and implemented by SEAFDEC)

An integrated program to preserve mangroves, sea grass and coral ecosystems in terms of ICM approaches.

Development of net retention and recycling schemes although information is unknown or unavailable.

**1.4.6 Are the mitigation measures described in 1.4.4 and 1.4.5 periodically reviewed and evaluated for their efficiency? [SAP]**

UNSURE (Please provide details)

> There has been no national official evaluation and review on the mitigation measures. However, they were on discussion and consultations with stakeholders in different studies, training and workshops on marine turtle conservation at local and central levels.

**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]**

> In order to ensure the protection of marine turtles, the Government of Viet Nam and WWF Viet Nam implemented a two-stage project entitled "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine Turtle Interactions in Vietnamese Fisheries", with support from the US-NOAA and WWF International.

The project was generally divided into two phases:

- Phase one was reported on herein and focuses on the identification of geographic "hotspot" and relative impacts of different gear types and source provinces with respect to marine turtle mortality inside Vietnamese waters (2006-2007).

- Phase two focused on the implementation of a first-of-its-kind Observer Program in the long-line fleet, in order to ground-truth data, determine baseline on catch rates for target fish and for by-catch, as well as socio-economic parameters (2008-2009).

Project Objectives:

1. Improve the overall knowledge base regarding the occurrence of fisheries-turtle interactions in Viet Nameese waters:

- a. identify geographic hotspots for incidental by-catch
- b. identify relative impacts of different fleets and gears

2. Enhance understanding and awareness about interactions between marine turtles and fisheries

3. Based on preliminary survey results and analysis design and implement an Observer Program for long-line fisheries (ongoing).

4. Depending on Observer program results, identify next steps, including experimental design of circle hook trials

5. Support capacity building of key government and fisheries industry members

6. Improve communication and coordination between local communities and government

7. Provide training and extension support for progressive management of by-catch

Research Institute of Marine Fisheries (RIMF) has been:

- Implementing the project "Survey and Collection of Secondary data, comprehensive impact assessment of offshore fisheries on marine turtles and recommendations" funded by D-FISH (under NPOA – Marine Turtles)

- Surveying, assessing and recommending the improvements of gillnet, trawlnet, long-line; testing TEDs and providing 15,000 C-hooks to replace conventional J-hooks. Developing maps of marine turtles impacted by those fisheries and recommending measures to reduce the mortality in those areas.
- Identifying migratory routes of marine turtle and providing guidelines for capture fisheries to reduce marine turtle by-catch.
- Establishing and updating database on marine turtles and their habitats.
- Researching biological and ecological characteristics of marine turtle populations in Vietnamese waters and recommending appropriate conservation measures.
- Assessing and recommending measures to mitigate impacts of climate change on marine turtle populations and their habitats in Viet Nam.

Institute of Marine Environment and Resources (IMER) has been:

- 2016-2017: implementing project "Survey of the status of marine turtles and their habitats in the Northern and Northern Central Region (from Quang Ninh to Thua Thien Hue province) - funded by IUCN Vietnam and Fish and Wildlife Services). The objectives were to assess the current status of marine turtle reproduction from Quang Ninh to Thua Thien Hue province, including islands and clusters of islands near the shore, focusing on Hawksbill and leatherback turtles; identify of threats to marine turtles and propose protection measures. Research results: the spawning grounds of green turtles were identified in the area: Hon Nhan beach (Tran island), Bai To Con, Hon Mieu, and Thanh Lan (3 yards) and beach in Hon Nut (Quang Ninh province). Leatherback turtles only appear at the beach of Hai An commune, Hai Lang district, Quang Tri province but the number is very small (every 6-7 years). Species of Hawksbill and green turtles have no longer appeared to reproduce in the area, especially in the areas around Son Tra Peninsula (Da Nang) as in 2000. The areas of Hon Nhan and Co To Con were proposed to be protected areas aiming at protection of coral ecosystem and marine turtle spawning grounds; Tam Giang - Cau Hai, Son Cha (Thua Thien Hue) areas were to be protected area to protect foraging grounds of marine turtles.
- 2017-2018: implementing project "Survey of the status of marine turtles and their habitats in the South and Southeast regions (concentrated in Kien Giang province). The objectives were to assess the status of marine turtle reproduction in Kien Giang province, including islands and clusters of islands near the coast with the focus on Hawksbill and leatherback turtles; identify of threats to marine turtles and propose protection measures. Research results: marine turtle spawning grounds were not detected at near-shore islands such as Phu Quoc, Hai Tac island, Ba Lua island, Nam Du island. Only small sandbanks in Tho Chu island are available, but small number (1-2 individuals/season). Fishermen often see/catch marine turtles in the seagrass meadows around the islands, mainly Hawksbill and green turtles. Marine turtle protection areas and seagrass meadows in Ba Lua and Hai Tac and nesting sandbanks in Tho Chu should be established as MPA to protect marine turtles.

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 (If yes, please give details of the exchanges/technical assistance)

> Information exchange and collaboration on marine turtle research, conservation and management between fisheries administrations, research institutes with those of partner countries, international organizations, NGO, e.g. SEAFDEC, IUCN, WWF, TRAFFIC, NOAA and others.

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]**

> - Fisheries related mortality of marine turtles in Viet Nam has been identified as a significant issue, which requires immediate management intervention, and specifically identified in the NPOA - Marine Turtles. Moreover, the overall goal of implementing by-catch reduction measures such as by-catch observer programs is a related objective to reduce marine turtle mortalities at sea and improve the sustainability of the capture fisheries.

- Prohibition of the number of trawlers (except specific acetes trawlers) at coastal and shallow waters.
- Due to characteristics of the multi-species and small-scale fisheries, Viet Nam is considering and on-going to make the final decision in terms of large- scale driftnets, such as length (distance end to end net) is not over 2,500m with the suitable size.
- Requirement for the use of TEDs in Vietnamese trawl fisheries has been being considered.

## 1.5 Addressing harvest of, and trade in, marine turtles; and protecting of habitat

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]**

Please provide details (title/date) of the relevant legislation, as well as any exemptions (e.g. for traditional harvest) under that legislation.

YES

> The following laws and regulations promulgated by the National Assembly and the Government of Viet Nam have established a legal framework relating to fisheries resources protection and development, particularly marine turtles:



Biodiversity Law (2019): Article 7; Article 41; Article 44; Article 46  
Government Decree No. 160/2013/ND-CP: Chapter 3: Management measures for endangered species of protection priority (Article 11; Article 12; Article 15)  
Fisheries Law (2017):  
Government Decree No. 26/2019/ND-CP of 08 March 2019 on detail provision and implementation of the Fisheries Law;  
Government Decree No. 42/2019/ND-CP of 16 May 2019 regulating administrative sanctions in the Fisheries sector  
Criminal Code (2017): Article 246;  
Circular No.04/2017/TT-BNNPTNT dated 24th February 2017 of the Minister of Agriculture and Rural Development adopting the list of species of wild flora and fauna regulated in Appendices of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);

### **1.5.2 Which, among the following list, are economic uses and cultural values of marine turtles in your country? [INF]**

Please rate the relative prevalence / importance of each consumptive or non-consumptive use. Use the text boxes below each rating to explain or clarify your responses.

#### **a1) Meat consumption**

YES

> Illegal trade of marine turtle meat has been sometimes detected and handled by relevant competent authorities.

#### **a2) Meat consumption: relative prevalence/importance**

LOW

> Before 1987, consumption of marine turtle meat and eggs were legal and tradition of coastal communities. However, marine turtle have been considered as endangered species to be high priority protection and meat consumption is facing criminal sanctions, only some cases have been recently detected and handled by competent authorities.

#### **b1) Egg consumption**

YES

> Illegal trade of marine turtle eggs has been sometimes detected and handled by relevant competent authorities.

#### **b2) Egg consumption: relative prevalence/importance**

LOW

> Before 1987, consumption of marine turtle meat and eggs were legal and tradition of coastal communities. However, marine turtle have been considered as endangered species to be high priority protection and egg consumption is facing criminal sanctions, only some cases have been recently detected and handled by competent authorities.

#### **c1) Shell products**

YES

#### **c2) Shell products: relative prevalence/importance**

LOW

> Before 1987, consumption of marine turtle shells and shell products were legal and traditional livelihoods of several coastal communities. However, marine turtle have been considered as endangered species to be high priority protection and shells and their product trafficking and trade and are facing criminal sanctions, only some cases have been recently detected and handled by competent authorities.

#### **d1) Fat consumption**

NO

> There is no turtle fat consumption in Viet Nam.

#### **d2) Fat consumption: relative prevalence/importance**

UNKNOWN

#### **e1) Traditional medicine**

YES

> Usually demanded by foreign tourists

e2) Traditional medicine: relative prevalence/importance

UNKNOWN

**f1) Eco-tourism programmes**

YES

> Recently, eco-tourism has been developed rapidly, particularly in MPA where nesting beaches are located.

f2) Eco-tourism programmes: relative prevalence/importance

LOW

> Eco-tourism activities may have minor impacts on the nesting beaches and foraging habitats of marine turtles. In some MPA (e.g. Hon Cau MPA, Con Dao National Park, Nui Chua National Park), marine turtle conservation-based eco-tourism programs are well organized and controlled by MPA Management Board. These activities also aim at community awareness raising.

**g1) Cultural / traditional significance**

YES

> In the Vietnamese culture, the turtle has become a divine, sacred and worshiped symbol in temples and pagodas.

g2) Cultural/traditional significance: relative prevalence/importance

HIGH

> In many places and periods, turtles have been worshiped as gods

h) Other (list and rank):

> Some people think that the fresh blood of marine turtles has a role as a doping source for sportsmen and cancer treatment.

1.5.3 Please indicate the relative level and impact of traditional harvest on marine turtles and their eggs.

**[IND, TSH]**

	RELATIVELY HIGH	UNKNOWN	NONE	RELATIVELY LOW	Moderate
Level of harvest:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Impact of harvest:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Source of information / explanation:

- > Newspaper, newsletter, network of friend inform-friend calls, training, workshop interview, consultation and group discussion, researches and studies of involving sectors and institutions
- Field survey and logbook collections
- Traffic International, WWF, IUCN reports
- Circulated questionnaires and feedback answers
- Local Fishery Department submissions and information
- Observation at local sites and markets
- Annually national reports

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

Use the text box to give details.

YES

- > - WWF-Greater Mekong, Viet Nam Country Programme is implementing the project "Improving the knowledge base and identifying management options for the reduction of marine turtle interaction in Vietnamese gillnet, longline fisheries.
- An Observer Program for long-line fisheries in the three provinces (Phu Yen, Binh Dinh, Khanh Hoa of Central part of Viet Nam) was launched in 2007. The program was implemented with 5-10 fishing vessels for each of those three provinces, over a temporal period for data collection of at least one month/boat. The majority of these fishing vessels were targeting big pelagic fish i.e. tuna, swordfish primarily.
- Marine turtle rescue project at Con Dao National Park and Nui Chua National Park and other MPA conservation and rescue establishments
- MFRDMD/SEAFDEC and ASEAN on marine turtle collaborative program, focused on mtDNA sampling and analysis, inconel tagging, PTT satellite tracking.
- National Action Plan on Marine turtle Research, Management and Conservation beyond 2010:

- National Plan of Action on Marine Turtle Conservation in Viet Nam over period 2016-2020;

There seem some good signals in terms of the number of turtle increasing in Vietnamese seawaters, especially after earthquake catastrophe and Tsunami waves in neighbouring countries. The Vietnamese conservationists involving in relation to marine turtle resource, have pointed out a self-query: might they be migrating and looking for coastal habitats in Vietnamese seawaters - Following up those, Research Institute for Marine Fisheries (RIMF) is as one of studying organization focus upon Marine Endangered Species carried out many activities to rescue marine turtle in collaboration with local fishermen and authorities concerning in order to study their biological identification, body-weight measures, ecological characteristics, tagging and release them back to seawater as soon as possible.

Early year of 2005, there had been 7 marine turtle individuals captured by fishing nets as by-catch were released. Until present, marine turtles have been rescued and released to natural sea in many different locations in Viet Nam by the efforts of local fishing communities, NGO, volunteers, local government and fisheries administration, environment police and border police.

Through activities, locally based fisheries management, such as, group discussion, persuasion, education with technical consultation by RIMF experts, most of fishermen who catch turtle realized their important role in Marine ecosystem. Result, all marine turtles had been released back to marine environment, in front of local governors and villager s' eyewitness.

Marine turtle nomenclature, weighted, body size measure, defined its years old and Titan inconel tagged both front flippers before releasing its into marine environment had been done by experts from Department for Marine Conservation Research Sciences of RIMF.

The events for marine turtle releasing movement in previous times showed that the "National Action Plan for the Marine turtle Management and Conservation beyond 2010 in Viet Nam" was really pace of enforcing, effecting and enjoying as step-by-step towards local people, especially, as they recognized that important role of endangered species conservation is essential in order to preserve ancient animals that survived after long-historical changes and that is invaluable gene source should maintain to next generations.

The learned lesson from those operation shown that needs the assistance both the finance and technical support from local authorities, especially from Ministry of Fisheries (nowadays, as MARD) to achieve purposes of "National Action Plan for the Marine turtle Management and Conservation in Viet Nam" and fully implementation on international commitments, which had been signed by Government of Viet Nam.

1.5.5 Describe any management agreements negotiating 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 management agreements being negotiated in terms of fishery exploitation at Tonkin gulf with China and historic sea areas between Viet Nam and Cambodia in relation to sustainable levels of traditional harvest, especially, fishes harvest yield, suitable number of fishing boat from each countries could be caught.

Participation of Marine Turtle Conservation Strategy and Action Plan for the Western Indian Ocean; the ASEAN Marine Turtle MoU; cooperative research under SEAFDEC; CITES and the SEASTAR2000 project in South-East Asia.

## 1.6 Minimizing mortality through nesting beach programmes

### 1.6.1 Measures and effectiveness

**First, tick one of the YES/NO-boxes** 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]**

Use the text boxes below each rating to elaborate on your responses, including any lessons learned that might be of value to other Signatory States, and indicate your plans for the coming year. Please explain any "Not Applicable (N/A)" responses.

#### a1) Monitoring/protection programmes

YES

> Nesting beach management makes it more convenient for females approaching and laying eggs  
Penning egg chambers to protect against predators and illegal egg collecting activities, rising sea level and for egg relocation

Creating a safe and suitable environment conditions for balancing sex ratio and the release of hatchlings into sea.

#### a2) Monitoring/protection programmes: relative effectiveness

GOOD

> The protection programs implemented in several MPA have been helping marine turtle to get safe nesting, increasing hatchability, balancing sex-ratio of hatchlings, raising awareness of communities on marine turtle conservation.

## **b1) Education/awareness programmes**

YES

> DFISH, provincial fisheries administrations, MPA Management Boards, NGO conducted a number of awareness programs for different stakeholders e.g. fishermen, volunteers, staff, professional workers, officials, researchers, enforcement officers...

The awareness program on fisheries resource protection including marine turtles 2018-2020 has been being implemented by Viet Nam Institute of Fisheries Economics and Planning (VIFEP).

DFISH will formulate and implement an propagation program for marine turtle conservation in the next few years.

## **b2) Education/awareness programmes: Relative effectiveness**

GOOD

> Since 3rd April 1996, Con Dao District People's Committee issued an Introduction No.02 /CT.UB.96 regarding the strengthening of the management of natural resource and environmental protection in Con Dao District. The introduction contains awareness raising on forest protection, forest fire prevention, immediate actions against forest destruction, hunting of wildlife, using chemicals to catch fish, destruction of coral reefs, which have bad impacts on the marine, coastal and terrestrial environment, especially the buffer zone around Con Dao.

There is a rising awareness among fishermen and local authorities regarding the status of marine turtle populations, existing laws and regulations, and the need for management mitigation.

There is now closer collaboration of fishing representatives from local authorities and fishermen to work with project partnerships in looking at feasible ways to reduce marine turtle by-catch.

## **c1) Egg relocation/hatcheries**

YES

> In some MPA i.e. Con Dao National Park and Hon Cau MPA, the marine turtle nests were excavated and transferred for incubation to selected hatcheries. The number of marine turtle nests and total eggs laid on the beaches have been being monitored and recorded. Total egg number, unhatched egg number, damaged egg number and hatchlings released were also recorded.

With MARD permission, egg relocation was implemented in Cu Lao Cham MPA with the turtle eggs sourced from Con Dao National Park (1,400 turtle, *Chelonia mydas*, natural 40-day-incubated eggs (hatching rate over 90%)) in 2017-2018. In 2019, additional 500 turtle eggs are transferred to this MPA under research project "Conservation and Restoration of Marine Turtles in Cu Lao Cham Marine Protected Area" funded by Quang Nam Provincial People's Committee.

Bai Tu Long National Park is formulating marine turtle egg relocation project for ex-situ conservation.

## **c2) Egg relocation/hatcheries: Relative effectiveness**

GOOD

> see c1

## **d1) Predator control**

YES

> see a1 and c1

## **d2) Predator control: Relative effectiveness**

GOOD

> see a1 and c1

## **e1) Vehicle / access restrictions**

YES

> see General Information

## **e2) Vehicle/access restriction: relative effectiveness**

GOOD

> see General Information

## **f1) Removal of debris / clean-up**

YES

> Beach cleaning campaign: all resort sites annually since 1996

Garbage collection: Some highly concentrated tourism sites such as Quang Ninh, Hai Phong, Hue, Nha Trang, Ba Ria-Vung Tau, Phu Quoc, Monthly has a good assessment.

Re-vegetation of frontal dunes

Nesting beaches are being cleaned and matters hindering marine turtle movements are removed by MPA Management Board (see General Information).

f2) Removal of debris /clean-up: relative effectiveness

GOOD

> see General Information

### **g1) Re-vegetation of frontal dunes**

YES

> Efforts have been made to re-vegetate frontal dunes at nesting beaches. Examples include:

Mangrove: Quang Ninh, Hai Phong, Ca Mau, HCM City since 1990 has been a success

Delphinium and pine tree: Quang Binh to Ninh Thuan since 1995 with 65% survival rate

Artificial Reef: Hai Phong, Khanh Hoa since 2003 has not yet been assessed

Viet Nam is still lacking operating funds. However, some activities to control and prevent coastal erosion at nesting beaches has been done at Con Dao and Nui Chua since 1994 and 2000, respectively.

g2) Re-vegetation of frontal dunes: relative effectiveness

GOOD

> see General Information

### **h1) Building location/design regulations**

YES

> Fishing and boat operation limits

h2) Building location/design regulations: relative effectiveness

GOOD

> see General Information

### **i1) Light pollution reduction**

YES

> see General Information

i2) Light pollution reduction: Relative effectiveness

GOOD

> see General Information

j.) Other (list and rate them)

> In fact, enforcement of related laws and regulations is still weak due to shortage of financial and human resources.

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

Use the text box to elaborate on your response, if necessary.

YES

> - There is the report completed in 2006-2007, namely "Improving the Knowledge Base and Identifying Management Options for the Reduction of Marine turtle Interactions in Vietnamese Fisheries: Preliminary Assessment of Hotspots and Recommended Next Steps for Onboard Fisheries Observer Program" done by RIMF and WWF- Mekong Infor Viet Nam Program [Phan Hong Dung, Nguyen Thi Dieu Thuy and Keith Symington]

- There is the report completed in 2006, namely "Marine turtles monitoring feeding habitats and tracking by satellite device at Viet Nam seawaters" [Phan Hong Dung, Nguyen Truong Giang et al, 2006]

- There is the guideline completed in 2005, namely "Viet Nam Fisheries by catch training materials" done by IUCN Viet Nam, RIMF and the School of Tropical Environment Studies & Geography, James Cook University, Australia [Mark Hamann and Chloe Schauble].

- Some other scientific reports concern in Vietnamese language.

- There are some country reports had been presented at regional and international workshops.

- MPA Management Board reports.

- Local Sub-Department of Fisheries and Forest Resource Protection Department reports.

# OBJECTIVE II: PROTECT, CONSERVE AND REHABILITATE MARINE TURTLE HABITATS

## 2.1 Measures to protect and conserve 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]**

> Discussing the importance of marine turtles with local people  
Promoting local participation at the selected sites, maintaining nesting habitats  
Offering local people the opportunity to attend the training seminars  
Giving a small grant to alternative livelihoods, such as aquaculture or ecotourism.

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

Use the text box to elaborate on your response.

YES

> National environmental monitoring center has been monitoring whole coastal zones of Viet Nam to assess the marine and coastal development and other human activities. However, it has not yet any center to assess routinely made of the environmental impact on marine turtles and their habitats. Only a few test to have carried out impact assessments specifically addressing marine turtles. More generally, it is less clear steps are taken to protect water quality near turtle habitats, including from marine debris. However, few MPA appeared to have measures in place to protect critical habitat outside of established protected areas, and not all of these are fully implemented. Those assessments have been monitored, surveyed and controlled annually at several points of study sites by RIMF staffs and other institutions involving such as MONRE, MARD.

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

YES

> - Decree No 191/2004/ND-CP dated in November 18th 2004 on management of fishery activities of foreign fishing vessel in Viet Nam's Seawaters.  
- Decision No 34/QD-TTg enforced at 22nd February 2005 on environmental protection, natural resource exploitation and biodiversity management in Viet Nam.  
- Decision No 10/QD-TTg enforced at 11th January 2006 on the master plan of fisheries development to 2010 and its vision beyond 2020  
- Decision No 47/QD-TTg dated 1st March, 2006 approved the general program on basic investigation and management for natural resources and marine environment to 2010 and beyond 2020.  
- The Government of Viet Nam amended Decree No 34/ND-CP dated March 17th 2005 on management and penalty regarding to water source utilities.  
- Enacted a regulation to limit discharge of water untreated at outlets  
- Promoted using agricultural products safely with limitations on chemical, pesticide and insecticide use  
- Reforested and protected mangrove, delphinium and pine tree areas  
- Enhanced common knowledge of fishermen and tourists in terms of marine environmental protection  
- Collected garbage at sea-shore and cleaned-up beaches.

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

Use the text box to elaborate on your response.

YES

> The Government of Viet Nam amended Decree 163/ND-CP dated 7th September, 2004 to regulate and control food security and safety.  
The Government of Viet Nam amended Decree 81/ND-CP dated 9th August, 2006 to resolve actions the breaking, infringing and violating the law within the environmental fault and mistake.  
The Government of Viet Nam amended Decree 174/ND-CP dated 29th November, 2007 to pay for the environmental fee of solid harmful-dangerous wastes from industry, agricultural sources (except the home garbage).  
The Fisheries Law 2017 (Article 7); Criminal Code 2015, 2017; Government Decree No. 42/2019/ND-CP  
All of those above, that focused on:  
Banning local people using chemicals and cyanide and any other harmful substances in fishing operations at any time/anywhere by law and provincial regulations  
Prohibiting the use of explosives in fisheries  
Giving penalty for those illegal actions as detected by big amount of money fine and fishing license cancelling or sentencing to prison

Providing small prizes/credits to volunteers and responsible pupils, other students and youths in general.

## 2.2 Rehabilitation of degraded marine turtle habitats

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]**

Provide sufficient details of the measures taken, especially those measures shown to have been effective in recovering degraded coral reefs. Please indicate future plans in this regard.

YES (Details/future plans)

> Viet Nam is monitoring coral reefs and making an effort at some provincial coastal areas to recover degraded coral reefs, include rehabilitation actions, upgrading of legal protection status, development of recovery plans, relocation of sewage, reduction of specific threats, and conduct of education and awareness activities, recover degraded mangrove habitats, and seagrass habitat, monitoring of dredging activities and coastal development.

The scientific evident got by Viet Nam and international arena assessment's results, the causes of the coral's demise are manifold, but they all come: Overfishing, especially the kind that uses dynamite or poison to kill whole schools of fish, destroys the coral directly, while polluted runoff from agriculture simply chokes them. Development in booming coastal economies and Tourism as the form of diving and snorkeling can also cause damage. Disease plays a role as well, with whole coral colonies wiped out by sudden sickness. That rise in illness may be linked to warmer sea temperatures, which is caused by climate change. And it was global warming that poses the most serious threat to the survival of coral. Corals have a symbiotic relationship with a kind of algae that provide nutrients and energy through photosynthesis, not to mention the vivid colors we associate with coral reefs. When corals are stressed by rising temperatures, the algae are expelled by the coral, turning the reefs bone white. That's a "bleaching event," and bleached coral are left weakened and defenseless against disease. Increased carbon dioxide concentrations in the atmosphere also lead to more acidic seas, which impairs the ability of corals to form their skeletal reefs.

Regarding coral reef fish, due to a combination of high demand due to much higher prices for live as opposed to dead reef fish; inadequate management, made more difficult by fragmented fishing grounds with limited management capacity; and unsustainable fishing practices are seen as the main causes of these problems. As a consequence of fishing pressure in some VN coastal areas over many years, reef fish stocks in these areas have been overfished to the point where too many fish capable of reproducing (adult or mature fish) have been removed and fish stocks are not being replenished. With fewer adult fish in the populations, immature fish are now making up a greater proportion of total catches.

Adding to the reef's troubles, the El Nino phenomenon in 1998 raised ocean temperatures, prompting a massive bleaching episode and the death of countless corals, and an explosion of coral-eating crown-of-thorns starfish.

It recognizing that coral reef, fish and other marine species can breathe easier with the introduction of a fishing ban around protected reef. Under the ban, all extractive activities, such as fishing, and coral collection and harvesting, will be completely forbidden. This 'no-take' zone will allow the reef and its residents ample time to recover from years of fishing for example:

- At Phu Quoc (Kien Giang - Viet Nam) and CamPot (Cambodia) have been running since 2006 under project, namely "prevention of the marine environmental degradation of South China Sea and Gulf of Thailand". It focus on coral reef and seagrass.

- At Con Dao, Phu Quy, Cu Lao Cham, Con Co, Cat Ba, Bach Long Vy, Co To have implemented since 2003, however, those sites has not yet assessed.

- At Hon Mun, Hon Tre, Hon Noc (Khanh Hoa) have implemented since 2001, some sites well assessed by International Marine Alliance (IMA).

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 (Details/future plans)

> Mangrove replantation: Since 1992, Viet Nam Scientist (Center of Research Environmental and Natural Resources - CRES) in collaboration with ACMANG Japanese Program (Tokyo-Japan Marine Corp.) had replanted more than 2,500 ha mangrove forest in the coastal zone of Viet Nam such as Quang Ninh, Hai Phong, Thanh Hoa, Ha Tinh, Khanh Hoa provinces.

Mangrove reforestation: at Quang Ninh, Hai Phong, Nam Dinh Ca Mau, HCM City--since 1990 - success of surviving rate at 90% up to now. Those activities had been funded by JICA, UNDP, DANIDA, Holland, USA, CIDA, SIDA, UNEP, UNDP, FAO, WWF, IUCN, WB, ADB.

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 (Details/future plans)

> Seagrass replantation: since 2002 at Phu Quoc island and donated by UNEP

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

## 3.1 Studies on marine turtles and their habitats

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]**

- > Cuong, C. T. 2009. Status of marine turtles at Bai Tu Long bay and Co To island (Quang Ninh province). Page 25. The Institute of Marine Environment and Resources, Unpublished report to IUCN Viet Nam.
- Cuong, C. T. 2010. Status of marine turtles in Quang Tri province. Page 22. The Institute of Marine Environment and Resources, Unpublished report to IUCN Viet Nam.
- Cuong, C. T. 2011. Status of marine turtle populations in Spratly Archipelago. in D. C. Thung, editor. Marine Environment and Resources. Viet Nam Academy of Science and Technology, Ha Noi.
- Cuong, C. T. and N. D. The. 2011. Report of the survey on marine turtles in the south center province. Page 27. The Institute of Marine Environment and Resources, Unpublished report to IUCN Viet Nam.
- Cuong, C. T., 2013. Impacts of climate change on marine turtle populations in Viet Nam. Unpublished report, Institute of Marine Environment and Resources, Viet Nam Academy of Science and Technology.
- Dung, P. H., N. T. D. Thuy, and K. Symington. 2007. Preliminary assessment of hotspots and recommended next steps for onboard fisheries observer program. WWF, Ha Noi.
- Giang, N. T. 2010. Study some biological characteristics of Green turtle (*Chelonia mydas*) in Con Dao islands. The University of Agriculture and Forestry in Ho Chi Minh Ho Chi Minh.
- Ha, V. V. and N. V. Hai. 2010. Preliminary results of circle and j-style hook comparisons in pelagic longline fishery of Central and Eastern Central provinces (Viet Nam) (in Viet Nameese). Reseach Institute of Marine Fisheries Productions, Haiphong.
- Hamann, M., C. Cuong, N. Hong, P. Thuoc, and B. Thuhien. 2006. Distribution and abundance of marine turtles in the Socialist Republic of Viet Nam. Biodiversity and Conservation 15:3703-3720.
- My, P. V. 2008. Results of implementing marine turtle conservation action plan in Da Nang. National Workshop in Marine Turtle Conservation. IUCN Viet Nam, Ha Noi.
- Stiles, D. 2009. The Marine Turtle Product Trade in Viet Nam. Marine Turtle Newsletter 124.
- TRAFFIC. 2004. The trade in marine turtle products in Viet Nam. TRAFFIC Southeast Asia - Indochina, Ha Noi.
- WWF. 2008. Report of WWF activities in marine turtle conservation project in B. T. T. Hien, editor. Final meeting of marine turtle conservation project, Ha Noi.

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]**

Please give details of the nature, duration and continuity of these programmes.

YES

> Viet Nam, in collaboration with MFRDMD/SEAFDEC have contributed mtDNA tissue samples that were collected at 5 coastal location for eventual use in analyses to characterise the genetic identity of marine turtle sub-populations.

The tagging and rescuing management program at Con Dao National Park and Nui Chua National Park since 1994 and 2000, respectively. The incubation at hatchery sites are being continued at Con Dao National Park.

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

Please give details (e.g. which species, which populations?).

YES

> This kind of activity has started since 2006. Initiating collection of tissues for mtDNA sampling, analysis and identifying the sub-population of Marine turtle structure in Viet Nam from 60 sample of green and 60 one of hawksbill turtles.

Viet Nam have being great effort to research, conservation and management on marine turtle that was recognized and implemented under the National Action Plan beyond to 2010. Those have greatly appreciated SEAFDEC/MFRDMD support. In connection to the sample collection for marine turtle population genetic identification and inonel tagging activities are focused. Those issues has being done in the selected sites, time and followed the special contract signed.

The training course on molecular genetics Mitochondrial De-oxiribo Nucleotit Axid (mtDNA) identification for marine turtle between Research Institute for Marine Fisheries (RIMF) - Viet Nam and Marine Fisheries Resources Development and Management Department (MFRDMD) Malaysia held at Haiphong, 23-26 June 2005.

**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]

### a) Tagging

YES (Details/future plans)

> The Marine turtle tagging project in collaboration with MFRDMD/SEAFDEC by using Inconel Tag Style on the front flipper has been conducted since 1997. Tagging of marine turtles started at Con Dao NP in 1998 using 900 Inconel tags provided by SEAFDEC/MFRDMD and also 1000 self-made tags. From August 1998 to July 2008, a total of 3,221 turtles had been tagged with the country code such as: (1) CD XXXX; (2) VN XXXXXX; (3) VN(S) XXXX (4) VN(C) XXXX (5) VN(N) XXXX.

Passive Integrated Transponder (PIT) and Microchip tags have never been used in Viet Nam. Marine turtle tagging process:

- August 1996 to September 2008: 2,870 female had been tagged.
- Frequency back to re-lay egg as  $3,11 \pm 1,87$  per year (n:64)
- 2004 - 2008: 1,658 FM had been laid with total of 3,266 clusters. That means of  $270,29 \pm 106,17$  female/year (from 404 to 568)
- 2004 - 2008: Moved 1,303 clusters into hatcheries and 155,354 hatchlings were reared before releasing.
- The satellite tracking program by using 10 of Platform Transmitter Terminal (PTT) was tested at Con Dao National Park.

The satellite tracking studies for green turtles had been conducted to determine their routes and feeding grounds at the southern part of Viet Nam waters.

- Foraging Map of marine turtle had been done in case of Viet Nam.
- Marine turtle metadata in relation to distribution, hot spot, nesting site, species composition, annual female landing, and hatchling released.

### b) Satellite tracking

YES (Details/future plans)

> Satellite telemetry project using modern satellite telemetry had been initiated by WWF-Indochina and NOAA at Con Dao National Park in 2001. 10 Platform Transmitter Terminals (PTT) were tested at Con Dao National Park. The satellite tracking studies for green turtles had been conducted to determine their routes and feeding grounds at the southern part of Vietnamese waters.

In 2006, satellite tracking of green turtle populations was conducted for the first time in Vietnam. 04 satellite transmitters were tagged to green turtle nesters in Con Dao in the project, namely, "Vietnam marine turtle tracking". The project was being led by the WWF Vietnam Country Programme, in partnership with IUCN Vietnam, the Vietnamese Ministry of Fisheries, Con Dao National Park, with support from the Danish Embassy (DANIDA) and with technical assistance from the Marine Research Foundation.

The satellite tracking results showed that the probable feeding areas for green marine turtles are within the water of Palawan Island (Phillipine) Phu Quy Island (Viet Nam), and Truong Sa island (Viet Nam).

### c) Other OR None of the above

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

> - Based upon the previous statistic data, the hatching rate ranged with average of 70-85% during the period of 1994 till 2011.

- There have been at least an amount of 120,000 of marine turtle hatchlings had been released back-into seawaters since 1994 from 46 nesting sites in Viet Nam.
- According to Con Dao National Park report, In 25 years (period 1994-2018), a total of 25,345 turtle nests and 2,281,072 eggs were recorded, and 1,815,827 turtle hatchlings were released back to natural sea with an average hatchling emergence success of 80%.

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

YES

> There is no any report having carried out studies of marine turtle population dynamics, the frequency and pathology of diseases of marine turtles. However, RIMF has carried out:

- Initiate studying on Fibropapiloma symptoms.
- Regurgitating or vomiting phenomenon has been primarily studied in laboratories by RIMF staffs since 1999.
- Trial prevention and treatment medicines for some skin parasitic and disease infections have been undertaken in aquarium rearing conditions.

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

YES

> Viet Nam is promoting the use of traditional ecological knowledge in marine turtle studies, such as:  
- Local participation as Nui Chua (Ninh Thuan), Bai Tu Long National Park (Quang Ninh), Hai Lang (Quang Tri), Nhan Hai (Binh Dinh), Hon Tre (Nha Trang Bay MPA (Khanh Hoa), Con Dao National Park (Ba Ria Vung Tau) Phu Quoc MPA (Kien Giang) that volunteers are encouraged to participate in egg collection and the release of the hatchlings back to sea at outside their village.

## 3.2 Collaborative research and monitoring

- 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]**

Use the text box to elaborate on your response.

- > 1) All activities of IOSEA MoU have been prioritised since 1st September 2001.
- 2) ASEAN-MoU had signed 12th September 1997 focusing on Viet Nam
- 3) More than 20 sub-projects in the National Action Plan on Marine turtle research, management and conservation in Viet Nam have been appointed to involve institutions
- 4) Continuing the tagging and rescuing management program with MFRDMD/SEAFDEC and others.
- 5) Considering and trialing TEDs implementation with TD/SEAFDEC and others if possible
- 6) Completed a satellite tracking project with NOAA (USA) and looking for next steps.
- 7) Continuing the incubation at hatchery project with WWF\_Indochina and others.
- 8) On-going marine turtle distribution surveys the with IUCN.
- 9) On-going marine turtle trade activities surveys with Traffic\_Indochina.
- 10) Continuing marine turtle bio-logging and ecological topic with SEASTAR 2000.

**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 (Details/future plans)

> This kind of activity has started since 2006. 60 tissues samples of green and 60 tissues samples of hawksbill turtles were collected for mtDNA sampling, analysis and identifying the sub-population of Marine turtle structure in Viet Nam.

The training course on molecular genetics Mitochondrial De-oxiribo Nucleotit Axid (mtDNA) identification for marine turtle between RIMF and MFRDMD was held in Haiphong, 23-26 June 2005.

b) Conservation status

YES (Details/future plans)

> Marine species conservation: This will focus on marine turtle populations. Research on population, behaviour, migratory patterns, and reliance on mangrove forests, seagrass beds, coral reefs will be combined with species-specific technical training and links with other regional research programs.

The development of the National Action Plan that serves as a guide for all future activities as they relate to the conservation of marine turtles and their habitat is thus appropriate. It will draw upon the expertise, resources and commitment of all stakeholders. Additionally, it will both facilitate and encourage the coordination and cooperation among the various sectors involved in the management of marine turtles. MARD, as the national agency legally vested with the protection and management of marine turtles in association with other institutions, convened several national workshops to develop the National Action Plan for marine turtles. Those workshops were gathering representatives from stakeholder groups and other interested parties to reach a consensus on the key issues that need addressing, and thereby devising the framework for action.

Building on experience and knowledge gained by other ASEAN/SEAFDEC members and other nations Researching and evaluating the usefulness of TEDs in the Vietnamese trawl fisheries.

Collecting baseline biological data on foraging area populations as well as to conduct baseline surveys of marine turtle distribution, abundance, status and threats.

Supporting the extremely valuable nesting beach tagging studies and uses of modern satellite telemetry techniques to increase the awareness and understanding of the local Vietnamese community on marine turtle migration.

The enhancement awareness and development of suitable Eco-Tourism Activities.

c) Migrations

YES (Details/future plans)

- > - The tagging and rescuing management program
- Satellite tracking project

#### d) Other biological and ecological aspects

YES (Details/future plans)

> Many research, conservation and management activities on marine turtles have been done in Viet Nam. RIMF, WWF Indochina, IUCN Viet Nam, Con Dao National Park and Nui Chua National Park staff have conducted programs of research on marine turtles to determine solutions for protection, conservation and management activities, which focus on biological, ecological, enhancement and management aspects.

### 3.3 Data analysis and applied research

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]**

> The existing data on nesting turtles in Viet Nam is limited to four marine turtle rookery group, focusing around National Parks, the mainland beach as Nui Chua (Ninh Thuan Province), at MPA and the islands in the Tonkin Gulf, the Gulf of Thailand and Paracel and Spratly archipelagos.

Based on previous studies, the average marine turtle nesting population of Viet Nam is estimated to be more than 482-820 females per year (mainly at Con Dao, Nui Chua, islands at the Tonkin Gulf and the Gulf of Thailand islands and at Paracel and Spratly archipelagos).

The list in order of priority the marine turtle populations in Viet Nam need of conservation actions by ordering is following:

1. Loggerhead turtle: It is difficult to determine whether numbers of loggerhead turtles residing in Viet Nam's seawaters have changed or remained stable over time, large declines.

2. Leatherback turtle: The data from latest our surveys indicated that fewer than 8 females currently nest along Viet Nam's beaches each year. It is likely that leatherback turtle populations in Viet Nam have been significantly reduced year by year.

3. Olive ridley turtle: it is estimated, based on recent survey data, that current nesting levels are some beaches in the order of 20-25 females per year.

4. Hawksbill turtle: The data showed that approximately 250-260 females per year have nested in the islands of the Gulf of Tonkin, and nesting populations of unknown size occurred in the Viet Namese and Cambodian islands of the Gulf of Thailand. Additionally, there is some hawksbill turtles used to nest in the Con Dao island group.

5. Green turtle: It estimate that at present time:

- Approximately 30-40 females nested each year on the islands in the Gulf of Tonkin

- Approximately 80-120 females nested each year along the mainland beaches and near shore islands of south-central Viet Nam (Quang Nam to Ninh Thuan).

- Fewer than 125 of females nested each year on the islands in the Gulf of Thailand.

- Based on information from Con Dao National Park it appears that the nesting population around the Con Dao island group has remained at a similar size, approximately, 230-400 females per year.

Additionally, There is currently shortage of information on the size; status of the nesting population of the offshore islands, including Bach Long Vy, Paracel islands (Hoang Sa 1&2), Spratly islands (Truong Sa & Nam Yet) and Tho Chu island (Kien Giang Province).

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

> Annually, statistical implementation of females laying at selected sites

Annually, statistical implementation of females re-laying at selected sites

Annually, statistical implementation the number of nesting females laying at selected sites.

According to Chu The Cuong's (2014) estimation, the impact of climate change is expected that in 2100, most of marine turtle hatched in Con Dao will be female and 85% total areas of some certain nesting sites within the Con Dao National Park will be disappeared due to sea level rise.

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; management, threat mitigation, assessment of hatchery management practices, assessment of habitat loss, lacking funding and knowledge for identification of DNA for marine turtles.

### 3.4 Information exchange

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 [If yes, please give details of the agreed protocol(s)]

> Using FAO, WWF, IUCN and CITES methods and categories to assess.

- The information is separated at the institutions involved.

- NPOA - Marine Turtles: marine turtle research, conservation and management in Viet Nam as a

guideline/protocol was approved by Minister of Fisheries (MARD at present) on 8th March, 2004 and the Minister of Agriculture and Rural Development on 14 March 2016.

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

RARELY

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]**

- > - Presentation of scientific reports at meetings and workshops
- Teaching at training courses, lectures
- Talking at seminars with local people and managers concerned
- Displays on advertising panoramas, notice boards
- Circulation to interested persons: billboards, pamphlet, leaflet, posters, brochures
- Printing the marine turtle booklet for school children, volunteers and other students.
- Broadcasting on the Radio and Television (media coverage) programs weekly, monthly or annually.
- Issuing magazine, newspaper and Internet on-line information.
- Organizing marine turtle exhibition and fair-place demonstration at several locations
- Combining marine turtles with other campaigns for conservation of wildlife species

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

Please give details **[INF]**

YES

- > - Analysed, prepared and edited by RIMF and IMER
- Collected by WWF, Traffic, IUCN and others
- Informed by Central and Local Fishery Resource Protection
- Provided by informants/ fishermen
- Circulated by MPA Management Board

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

## **4.1 Public education and information programmes**

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

Details/future plans:

- > - Presenting scientific reports
  - Teaching at training courses, lecture notes
  - Talking and discussing at seminars
  - Displays on advertising panoramas and notice boards
  - Circulating to interested persons: leaflets, posters, brochures
  - Printing the marine turtle book for school children, volunteers and other students.
  - Combining with other campaigns for conservation of wildlife species
  - Broadcasting on radio and television programs both at a provincial and national level, weekly, monthly or annually.
  - Producing scientific videos and films in order to raise awareness and educate the public.
- Not yet started web-sites but created a newsletter to facilitate networking and information exchange with IOSEA MoU, SEAFDEC, COFI secretariat and others.

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
- Tourists
- Media
- Teachers
- Students
- Military, Navy, Police
- Scientists
- Other (describe):

> local people at remote islands and mountains are quite hard to access information on marine turtles.

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

Please give details and indicate future plans

YES

> The National Steering Committee for marine turtles had been established, including 15 officers from several institutions concerned.

The focal point was nominated and appointed in 2006 from several institution concerned such as RIMF and NADAREP.

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

> Providing small amounts of fund/credits to shift to aquaculture, alternative income generations or ecotourism services

Developing handicraft skills such as making carvings, sewing, artisanal goods

Re-educating for new careers as available at local area

Promoting conversion to other agricultural or forest activities

Participating in off-shore fishing programs and marine ranching activities.

## **4.3 Stakeholder participation**

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]**

- > - Training and educating locals on the importance of marine turtles.
- Provide useful information in relation to marine turtles to responsible centre/ committee/ coordinator/ inspectors/ navy polices
- Keep cleaning beaches.

- Release marine turtles back to sea if attached to trawling, gillnets, longlines, and driftnets in some cases

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]**

> Many people comply with the Fisheries Law and related regulations

Volunteer activities have been conducted

Marine turtle preservation campaign attended

Funding support and donation from several sources. However, it is very small and not enough to do much.

The Ministry of Agriculture and Rural Development (MARD) coordinates and implements initiatives with RIMF as well as related branches, through discussions and actions, and also with the assistance from other Government Ministries and Departments of MARD.

NGO's are an important driving force behind the existing programmes and have provided support for government staff to participate in regional workshops, meetings and training courses.

MARD collaborates with, and assists, signatory and non-signatory states to combat issues relating to the illegal trade of marine turtle products.

MARD expects the enhancement of mechanisms for cooperation and promotion of information gathering and exchange between nations.

Continue to support the development of the IUCN/WWF/TRAFFIC marine turtle education package and encourage its incorporation into schools.

Within Viet Nam, MoFI (and Provincial sub-departments; FRPD), DoSTE, NEA, RIMF, Con Dao National Park, Government Research Institutions (HIO and NIO) and International NGOs (e.g. WWF, IUCN TRAFFIC, IMA, FFI, Frontier, UNESCO). MARD should establish contacts with regional Governments and research organisations to facilitate regional collaboration.

# OBJECTIVE V: ENHANCE NATIONAL, REGIONAL AND INTERNATIONAL COOPERATION

## 5.1 Collaboration with, and assistance to, signatory and non-signatory States

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 (If yes, please elaborate briefly)

> The national review is conducted by CITES Management Authority for selected and interested sectors.

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

NOT APPLICABLE

> No information available

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]**

Please give details of particularly successful interventions and prosecutions; and/or mention any difficulties experienced that impede progress in this area. Please provide references to any published reports (e.g. already prepared for CITES purposes) that give a more ample explanation.

YES

> There is currently no specific mechanism to identify international illegal trade routes, however customs-officers penalize traders.

In order to reduce illegal trade, the governors assigned all professional inspectors to control and treat it as soon as possible.

Will step up banning the marine turtle trade in small kiosks and souvenir shops in the near future.

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]**

> Discussion at national, regional and international meetings and workshops

Debating with Traffic staff how to reduce those activities as well. Large penalties for illegal trade.

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]**

> Viet Nam emphasizes educating methods in previous years and step by step, all those activities may be stopped.

Coordination between law enforcement agencies is strengthen to combat illegal trade in marine turtles and thereof products.

## 5.2 Prioritisation, development and implementation of national action plans

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]**

Please explain.

YES

> For period till 2010:

Based on the outcomes of our survey and study results on the ecology, biology and key threats, the National Action Plan (NAP) for marine turtle conservation had been prepared and reviewed by the Marine Turtle Steering Committee, representatives of Viet Nameese and NGO groups. This NAP was approved by the Vice-Minister of MoFI on March 8th 2004.

The National Marine Turtle Action Plan deals with the priority themes under six main strategies: (1) Reduction of indirect and direct causes of marine turtle mortality;

(2) Nesting beach hatchery management;

(3) Protection, conservation and rehabilitation of marine turtle habitats; (4) Research and monitoring;

(5) Public awareness and education; and

(6) National and regional cooperation.

Within those themes there is a list of detailed issues and recommendations. Each of those priority themes are harmonized and related to the IOSEA MoU Conservation and Management Plan.

Action plans that are being considered as possible models include: Following up the NAP strategies.

Establishing a rescuing station and developing an aquarium to enhance awareness, hatchery rearing as well

as training and education.

Increasing the hatch rate and developing releasing techniques.

The action plans are subject to regular review.

RIMF is committed to providing marine turtle information and scientific evidence The national marine turtle reports revised and edited by RIMF staffs. Collaboration with other institutions to set up marine turtle NAP.

Forwarding suggestions and recommendations to prepare laws and regulations

Do research and surveys on marine turtles

For period 2016-2025:

In order to continue the efforts to reserve situation and protect the remained marine turtle populations and their habitats in Viet Nam, Minister of Agriculture and Rural Development adopted the National Plan of Action on the conservation of Marine Turtles in Viet Nam for the period of 2016-2025 (NPOA – marine turtles). The main objectives of the NPOA – Marine Turtles are:

+ Period 2016-2020:

Develop and enhance the system of legal documents on marine turtle protection and conservation;

Improve and apply new fishing gears to protect marine turtles;

100% of natural spawning grounds of marine turtles are protected;

01 National Park (Con Dao National Park) becomes a member of the IOSEA Marine Turtle Site Network;

Two marine turtle rescue stations are established and operated effectively in Ba Ria - Vung Tau and Khanh Hoa provinces;

100% of MPA/national parks (with MPA component) staff are trained on marine turtle conservation;

100% of communities living in and around MPA /national parks (national park (with MPA component) and

100% of captains of tuna fishing vessels of trawling, gillnetting, purse seining and lines are trained to improve awareness and skills to protect and conserve marine turtles;

+ Period of 2020-2025:

At least 5% of the total number of gillnetters and 10% of the trawlers installed with turtle excluded equipment (TED);

100% of marine turtle habitats are protected;

Completion of the organizational system, mechanisms and policies for marine turtle conservation in accordance with the National Plan of Action on Biodiversity Conservation;

A database of marine turtles allowing the connection from the Directorate of Fisheries to national parks, marine protected areas and provincial Sub-Departments of Fisheries will be established in D-FISH.

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?

(List up to 10 activities from the IOSEA Conservation and Management Plan). **[PRI]**

> ESTABLISH A MARINE TURTLE SANCTUARY AND AQUARIUM (2.1) SCIENTIFIC RESEARCH (3.1)

Identify suitable beaches for marine turtle nesting in the area

Investigate growth rate in captivity

Feeding ground

Long-term tagging programme

Threats assessment (1.1)

EDUCATION AND TRAINING PROGRAM

Organize training for local people, sanctuary staff and for students (5.4) Produce awareness material, such as leaflets and posters (4.1)

COLLABORATION WITH FISHERMEN

Conduct interviews and estimate mortality rate of marine turtles due to fishing activities (1.4) Investigate local's thinking of using TEDs in trawling.

DEVELOP ECOVOLUNTEER PROGRAM

Evaluate if possible establishing the next ecovolunteer program.

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 achieve progress. **[PRI]**

In other words, how important is **international** cooperation for addressing these issues?

Please select only one per line

	NOT AT ALL	LIMITED	IMPORTANT	ESSENTIAL
Illegal fishing in territorial waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Incidental capture by foreign fleets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enforcement/patrolling of territorial waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Hunting/harvest by neighboring countries	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poaching, illegal trade in turtle products	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Development of gear technology	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil spills, pollution, marine debris	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Training / capacity-building	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alternative livelihood development	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Identification of turtle populations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Identification of migration routes	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tagging / satellite tracking	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Habitat studies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Genetics studies	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Use the text box to list and rank any other local management issues for which international cooperation is needed to achieve progress.

- > - Marine turtle tagging activities: PIT and microchip tag and scanner analyses
- TEDs trials and testing in some trawling boats
- Correlation between shrimp trawl fishing and marine turtle foraging grounds
- Identification of interaction between marine turtle and fishery operations
- Marine turtle DNA analysis
- Marine turtle foraging areas
- Satellite tracking for marine turtle migration in SE Asian region
- Marine turtle hatch rate
- Marine turtle sexual modification and identification
- Marine turtle hatchery management
- Marine turtle food chain interaction
- Aquarium techniques for marine turtle maintenance
- Exchanging information programs on marine turtle
- Marine turtle GIS mapping technique to avoid by-catch
- Enhancement of human capacities in term of marine turtle conservation
- Develop marine turtle ecotourism and ecovolunteers.
- Marine turtle twinning workshops, training and education

### 5.3 Cooperation and Information exchange

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]**

- > - Considering joining and becoming a CMS member
- Continuing the CCRF made by FAOi
- Trial circle hooks in longlining
- Making the national marine turtle guideline/regulation in connection to FAO meeting output from 29 Nov-2 Dec, 2004 at Bangkok, Thailand.
- Ratification of UN Fish Stock Agreement

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

YES (if yes, give details)

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? Please

describe the interventions made in this regard, referring to specific RFBs. **[SAP]**

> Annually, Marine turtle Steering Committee reviews the available information on the current status of marine turtle conservation including both incidental and direct catches, their impacts on the populations and other factors affecting the mortality of marine turtles

Annually, Marine turtle Steering Committee reviews the new development of selected fishing gear and other techniques to improve marine turtle conservation.

Collection of data from Local Fisheries Department annually to make a national statistical fisheries report

The annual specific workshop/meeting was organized and experts provided technical input to the Technical Consultation and outputs, including overview of marine turtle status, fisheries impacts, possible managerial solutions, economic aspects and recommendations for future work and actions of marine turtle conservation measures within EEZs and the high seas.

## 5.4 Capacity-building

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]**

> Issues that need to be addressed:

Inadequate knowledge of critical marine turtles habitat in Viet Nam: very little information currently exists about the distribution and abundance of marine turtle foraging populations in Vietnamese waters. Moreover, what we do know is based upon interviews with local fisherpersons and provincial government staff.

Additionally, most of the data that we have obtained from surveying fishers is based on rates of incidental capture and is limited by the memory of the informants/respondents. This may be bias temporally, spatially or towards particular species, size classes or maturity.

Inadequate protection of critical marine turtles habitat in Viet Nam: Continue annual baseline surveys to collect information on the distribution of nesting beaches, especially those on offshore islands (priority areas include Da Nang (Son Tra beaches), Bach Long Vi, Phu Quy, Spratly and Paracel Archipelagos, Phu Yen, Khanh Hoa and Kien Giang provinces.

Insufficient data to mitigate the threats to marine turtles and assess and improve their conservation status.

Insufficient exchange of information.

Lack of information about the distribution, abundance, and biology of sub-regional (Viet Nam, Cambodia, Thailand, Southern China) marine turtle populations

Lack of information about reduction of indirect and direct causes of marine turtle mortality

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]**

> - For the period of 2006-2008, WWF in cooperation with the Research Institute of Marine Fisheries have launched a two-stage project "Improving the knowledge base and identifying management options for the reduction of marine turtle interactions in Vietnamese fisheries" (or "By-catch project").

- Workshop on mitigating marine turtle bycatch in Vietnamese fisheries at Phu Yen, 6-7th November 2007.

- By-catch option for community workshop at Nha Trang, 14-16th November 2006.

Training/workshop on marine turtle conservation and future direction at Con Dao, 13-19th July 2006.

- Workshop on marine turtle conservation and future direction of resources enhancement and Introduce the appropriated on-board fish handling and preservation technology to Vietnamese fishers at Nha Trang, 18-20th October 2005.

- The Fourth National Workshop formulated the National Action Plan on the marine turtle research, conservation and management in Viet Nam beyond 2010 at 20th June, 2004. Its objective was promoted and allocated prioritised activities to concerning institution at Phase II on-going procedures.

- The third National Workshop finalized the National Action Plan on the marine turtle research, conservation and management in Viet Nam beyond 2010 at 28th May, 2003. It was approved by Vice-Minister of MoFI at 8th March, 2004.

- In April, 2003 WWF\_Indochina, IUCN, Ha Long Bay Management Authority and MoFI organized at Quang Ninh Province a training course/meeting with local, provincial fisherman and students from 14 coastal areas introducing the marine turtles with practical show and talks. Totally 40 students and 5 experts and teachers attended the training/meeting and showed their interest in nature conservation.

-In May, 2003 WWF\_Indochina, IUCN and MoFI organized at Quang Nam-Da Nang Province a training course/twinning workshop with local, provincial fishermen from 28 coastal areas introducing the marine turtles and MPA concepts. Totally

24 students and 16 experts attended the training/twinning workshop and discussed with their interest in nature resource conservation and management.

- In 2002, MoFI, as the national agency legally marked with the protection and management of marine turtles in association with the IUCN\_VN convened the second national workshop on the 28th November as an initial step in the development of a National Action Plan for marine turtles.

- In July 2001, MoFI and IUCN hosted the first national workshop on marine turtle conservation and management in Viet Nam.

- In December 2001, a round table meeting of senior representatives from all relevant government and NGO stakeholders was held to discuss the initiation of a marine turtle project in Viet Nam.

- At 20th March 1998 the Science Department of CDNP introduced Con Dao marine resources and marine turtles conservation to 3 agencies namely the Local History Museum (20 people), Vo Thi Sau Secondary School (20 people) and C10 Military Barracks in the Park.
- At 15th June 1998 the Park organized a workshop on "Natural Resources Conservation and Planning of Con Dao National Park". The workshop introduced the marine turtles conservation program to the park staff and local authority. A total of 50 people attended the workshop.
- At 23rd September 1998 the Science Department organized a program for C10 Military Barracks to study about the natural resources of Con Dao NP, including the introduction about the dugong and marine turtles. A total of 40 people joined the program.
- At 25th September 1998 Con Dao NP organized a meeting with students of Vo Thi Sau Secondary School introducing the coral reefs, seagrass and Con Dao marine mammals with a slide show and talks. Totally 40 students and 15 teachers attended the meeting and showed their interest in nature conservation.

During 2015-2018 period, DFISH had conducted 2 consultation workshops and 02 training workshop on identification and rescues of marine turtle, in collaboration with WWF Viet Nam had conducted a number of training courses and activities for tuna fishermen, provincial fisheries administration and other related people with objectives to raise marine turtle protection awareness, responsibilities and improve their knowledge and rescue skills, and to consult stakeholders (fishermen, fishing vessel owners and captains, middlemen, processing establishments, fisheries associations, researchers and scientists, fishing port managers, local competent authorities) about effective measures to reduce by-catch, prevent illegal holding, trafficking and trade of marine turtles. In 2019, WWF Viet Nam continues to collaborate with Viet Nam Tuna Association to convene training courses, events and activities for tuna fisheries stakeholders in central provinces of Viet Nam.

In June 2018, DFISH, with supports from TRAFFIC International Viet Nam (financial supported by US Fish and Wildlife Services) and the Institute of Oceanography held the national workshop on marine turtle conservation with the objectives to report research and protection efforts, discuss recommendations, measures and future activities to improve marine turtle protection and conservation.

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]**

> There have been collaboration and cooperation activities at National University, Hanoi (University of Natural Sciences), Nha Trang Institute of Oceanography and Hai Phong Institute of Marine Environment and Resources, Research Institute for Marine Fisheries as well as other NGO - Institutions.

## 5.5 Enforcement of conservation legislation

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]**

> Laws and regulations and policies relating to conservation of marine turtles and their habitats are well formulated. However, the enforcement and implementations have been still limited due to lack of financial and humane resources.

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]**

Please give details.

YES

> The development of our NPOA-Marine Turtles that serves as a guide for all future activities as they relate to the research, conservation and management of marine turtles and their habitat. Additionally, it will both facilitate and encourage the coordination and cooperation among the various sectors involved in the management of marine turtles in terms of the expertise, resources and commitment of all stakeholders. MARD has taken to pursuit marine turtle conservation programs by establishing a Steering Committee that will oversee tasks as they relate to marine turtle conservation and management in Viet Nam. In June 2018, DFISH in collaboration with TRAFFIC International in Viet Nam and the Institute of Oceanography convened the National Workshop of Marine Turtle Conservation with the objective to identify issues, solutions for the NPOA implementation in the coming time after two-year implementation.

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]**

Please give details.

YES

> Lack of a standardized, scientifically validated and legally enforceable set of guidelines to manage hatcheries: If left unmanaged, hatcheries have the potential to compromise the hatchlings chance of survival in the wild, through alterations to nest density, incubation temperature and the physiology of gas exchange.

Moreover, incorrect nest relocation techniques, and hatchery site selection and hatchling release methods can negatively affect the conservation success of the project.

Inadequate monitoring and regulation of hatchery activities: Because of the potential negative affects that a hatchery environment may have upon hatchling sex ratios, hatchling quality (body condition and performance) and hatchling quantity (emergence success), hatcheries are a secondary management option behind leaving nests in-situ. However, when it is deemed necessary to establish a hatchery, i.e.; in places where egg harvest by people or predation by native/introduced fauna or inundation are likely. Inadequate monitoring and regulation of hatchery activities.

Inadequate knowledge of critical marine turtles habitat in Viet Nam: very little information currently exists about the distribution and abundance of marine turtle foraging populations in Viet Nameese waters. Moreover, what we do know is based upon interviews with local fisherpersons and provincial government staff.

Additionally, most of the data that we have obtained from surveying fishers is based on rates of incidental capture and is limited by the memory of the informants/respondents. This may be bias tempororally, spatially or towards particular species, size classes or maturity.

Inadequate protection of critical marine turtles habitat in Viet Nam: Continue annual baseline surveys to collect information on the distribution of nesting beaches, especially those on offshore islands (priority areas, include Da Nang (Son Tra beaches), Bach Long Vy, Phu Quy, Spratly and Paracel Archipelagos, Phu Yen, Khanh Hoa and Kien Giang provinces.

Insufficient data to mitigate the threats to marine turtles and assess and improve their conservation status.

Insufficient exchange of information.

Lack of information about the distribution, abundance, and biology of sub-regional (Viet Nam, Cambodia, Thailand, southern China) marine turtle populations

Lack of information about reduction of indirect and direct causes of marine turtle mortality.

# OBJECTIVE VI: PROMOTE IMPLEMENTATION OF THE MOU, INCLUDING THE CMP

## 6.1 IOSEA Marine Turtle MoU membership and activities

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

> IOSEA MOU

Viet Nam became a signatory party to the MoU on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and Southeast Asia on 1st September 2001.

ASEAN MoU Viet Nam became a signatory party to the ASEAN Marine turtle Conservation and Protection on 20th September, 1997.

CITES Viet Nam became a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in April, 1994.

Workshops held which provided an opportunity to raise awareness of the MoU: Attended training/workshops organized by ASEAN/SEAFDEC.

Participated in annual meetings hosted by IOSEA\_MoU Secretariat

Observed marine turtle and fisheries operation meetings/workshops organized by CMS and FAO Secretariat.

Discussion at SEASTAR 2000 conferences

Attended marine turtle symposium associations

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

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]**

NO VIEW (Use the text box to elaborate on your response, if necessary)

> Still under consideration

## 6.2 Secretariat and Advisory Committee

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]**

> Viet Nam should be considered as a developing country.

## 6.3 Resources to support implementation of the MoU

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]**

> Funding for NPOA - Marine Turtles implementation is from National and Local Budgets, NGO and donors.

Marine Turtle conservation shall be funded within the National Program of Fishery Resource Protection (under Fisheries Law 2017) and the National Program of Endangered Turtle Species Conservation (under Biodiversity Law 2008).

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

NO

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

> Promote locals changing to aquaculture and ecotourism activities. Still no funding for conservation and management activities in 2008.

Some MPA have organized marine turtle conservation based tourism services to get revenues to fund MPA conservation activities.

## 6.4 Coordination among government agencies

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]**

Please elaborate, as necessary.

YES

> At the time being, DFISH in coordination with CITES Management Authority (under MARD) is lead agency responsible for marine turtle conservation and management as assigned by the Minister of Agriculture and Rural Development. DFISH is also advising the Minister of Agriculture and Rural Development in policy making and implementation relating to marine turtle protection.

Nature and Biodiversity Conservation Agency (under MONRE) is responsible for general state administration for endangered species (including marine turtle) conservation and management.

Marine turtle Steering Committee appointed as technical consultation partnerships taking care and responsible in terms of general management and suggest policy/ regulation issues.

Research Institute for Marine Fisheries conducts scientific survey and collects data and information as well as prepares of technical guidelines and supports policy-makers.

Others such as WWF, IUCN, TRAFFIC as NGOs related to Technical and management point of views.

MPA and National Park Management Board play the important role in terms of direct implementation of marine turtle activities projects and programs.

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]**

Use the text box to elaborate.

YES

> see 6.4.1

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]**

This question seeks to ascertain whether Signatories have made a serious examination of which agencies have a role to play in marine turtle conservation, either directly or indirectly, and which therefore should be apprised of the IOSEA MoU and its provisions.

If no internal review of interagency roles and responsibilities has been or will be undertaken, please elaborate if only to indicate that the necessary arrangements are already clear and not in need of further review.

YES (Use the text box to elaborate)

> Annually, Marine turtle Steering Committee reviews the available information on the current status of marine turtle conservation including both incidental and direct catches, their impacts on the populations and other factors affecting the mortality of marine turtles.

Annually, Marine turtle Steering Committee reviews the new development of fishing gears and other techniques to improve marine turtle conservation if possible.

## **OTHER REMARKS**

Please provide any comments/suggestions to improve the present reporting format.

> No comment and suggestion.

Feel free to include additional information not covered above:

> None

