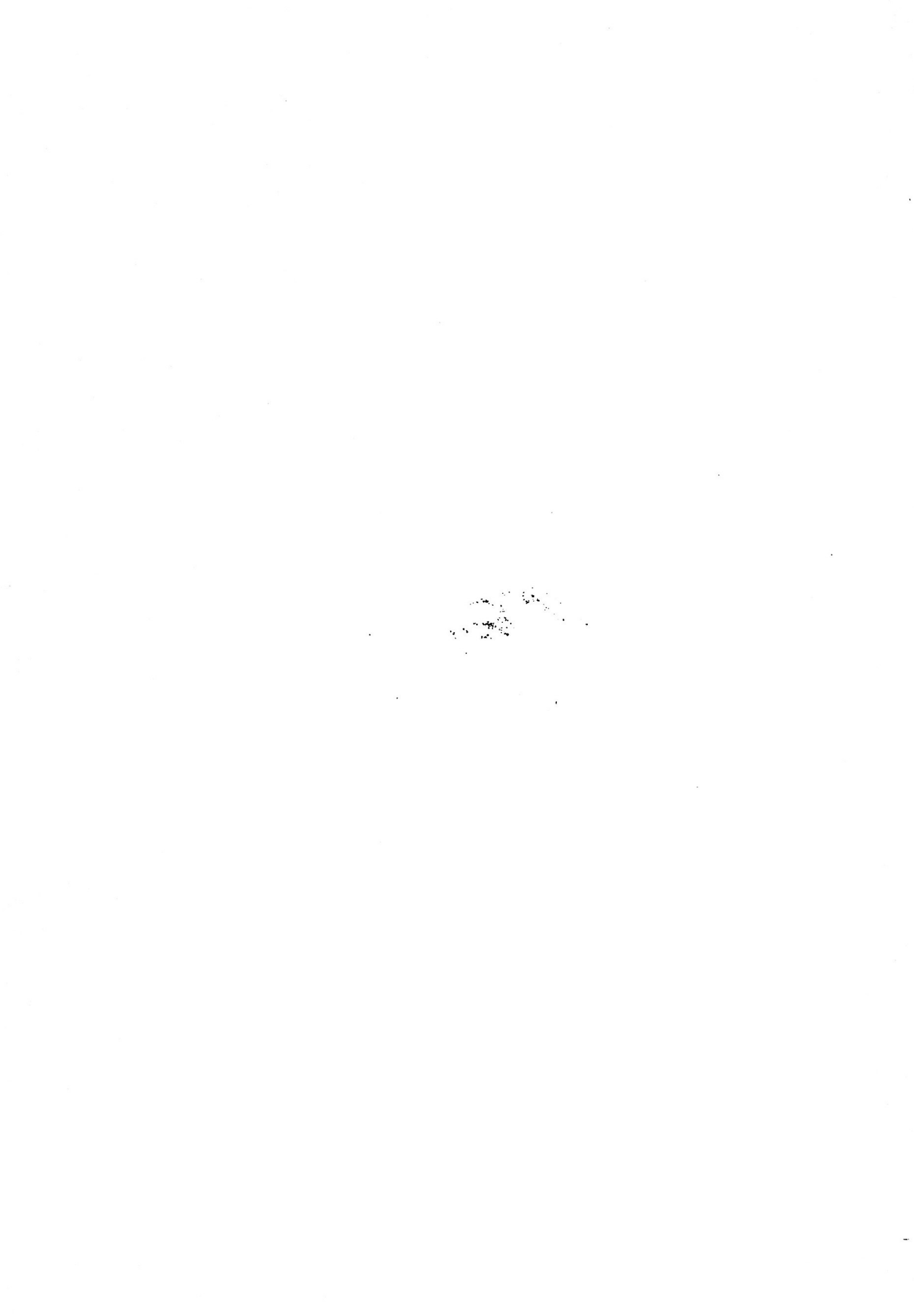




# REPORT OF THE REGIONAL TECHNICAL CONSULTATION ON FINALIZATION OF IMPLEMENTATION PLAN ON RESEARCH FOR STOCK ENHANCEMENT OF SEA TURTLES

Kuala Terengganu, Malaysia  
25 - 26 April 2005







**REPORT OF THE REGIONAL TECHNICAL CONSULTATION ON  
FINALIZATION OF IMPLEMENTATION PLAN ON RESEARCH FOR  
STOCK ENHANCEMENT OF SEA TURTLES**

Kuala Terengganu, Malaysia

25-26 April 2005



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**THE REGIONAL TECHNICAL CONSULTATION ON  
FINALIZATION OF IMPLEMENTATION PLAN ON RESEARCH FOR STOCK ENHANCEMENT OF SEA TURTLES  
KUALA TERENGGANU, MALAYSIA  
25-26 APRIL 2005**



*Seated from right: Ms. Pham Thi Thuong Mai, Ms. Wahidah, Mr. Buntit Chokesanguan, Dr. Douglas Hykle, Dr. K. Okazawa, Dr. Y. Konishi, Mr. Raja Mohammad Noordin, Mr. J. Okamoto, Mr. Suriyan Vichitlekarn, Ms. Pouchamarn Wongsang, Ms. Reny Puspasari, Ms. Sri Turni Hartati and Ms. Mi Mi Maw.*

*Second row from right: Mr. Rosidi, Dr. Yosni, Dr. Sukarno, Mr. Harris, Mr. Mickmin Charuchinda, Mr. Robert Leong, Mr. Syed Abdullah, Dr. Dionysius Sharma, Mr. Mohd. Sidek, Mr. Kamarruddin, Mr. Va Longdy, Mr. Cho Hla Aung, Mr. Anucha Songitsawat, Mr. Idris, Mr. Buntit Kullavanijaya and Assoc. Prof. Liew Hock Chark.*

*Third row from right: Mr. Ahmad Ali, Mr. Ku Kassim, Mr. Zulkifli, Mr. Irwan Isnain, Mr. Pich Sereyath, Mr. Phan Hung Dung and Mr. James Bali.*

## **I. INTRODUCTION**

1. At the invitation of SEAFDEC-MFRDMD, the Regional Technical Consultation on Finalization of Implementation Plan on Research for Stock Enhancement of Sea Turtles was held in Kuala Terengganu, Malaysia from 25 to 26 April 2005.
2. The Consultation was attended by the national delegates from the ASEAN-SEAFDEC member countries namely Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Thailand and Vietnam. The Consultation was also attended by resource persons from Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM), WWF Malaysia and Universiti Kebangsaan Malaysia (UKM) as well as representatives from Indian Ocean-South East Asian Marine Turtle Memorandum of Understanding (IOSEA), SEAFDEC-Secretariat, SEAFDEC-MFRDMD, SEAFDEC-TD and SEAFDEC-AQD and Department of Fisheries Malaysia.

## **II. BACKGROUND, RATIONALE AND OBJECTIVES**

3. Many of the ASEAN member countries have established national programs on the conservation and management of sea turtles. To support the implementation of the MoU on ASEAN Sea Turtle Conservation and Protection adopted by the ASEAN Ministers on Agriculture and Forestry (AMAF) in 1997, SEAFDEC has also started its initiative in conservation and management of sea turtles in the Southeast Asian region as a project supported by the Japanese Trust Fund to SEAFDEC.
4. From 1998 to 2004, SEAFDEC-MFRDMD and SEAFDEC-TD conducted Japanese Trust Fund I (JTF I) program entitled Conservation and Management of Sea Turtles in Southeast Asian Countries under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism. The program consisted of three projects, i.e, sea turtle hatchery management studies, sea turtle tagging survey and the introduction of turtle excluder devices (TEDs) in shrimp trawling.
5. On the basis of the results of the JTF I program, SEAFDEC-MFRDMD has developed a new program entitled Research for Stock Enhancement of Sea Turtles with the support from the Japanese Trust Fund IV (JTF IV) to SEAFDEC. In this connection, this Consultation was held with the objectives to:
  - finalize the project implementation plan as proposed by SEAFDEC-MFRDMD and SEAFDEC-TD;
  - exchange information and experiences on population genetic study and sea turtle tagging activities in member countries, and
  - discuss on the improvement of current data collection on management and conservation measures in the region.





### **III. OPENING OF THE MEETING**

6. Mr. Raja Mohammad Noordin bin Raja Omar, Chief of SEAFDEC-MFRDMD welcomed the participants to Kuala Terengganu and thanked them for their presence in this Consultation. He stressed on the objectives of the Consultation particularly on the finalization of the project implementation plan under the JTF IV. He hoped all the participants would have a fruitful meeting.
7. Mr. Junichiro Okamoto, Deputy Secretary-General of SEAFDEC and JTF manager delivered his Opening Speech. He stressed on the importance of the concerted efforts among the ASEAN-SEAFDEC member countries for the effective conservation and management of sea turtles in the region. After the speech, he declared the Consultation open.

### **IV. ADOPTION OF AGENDA**

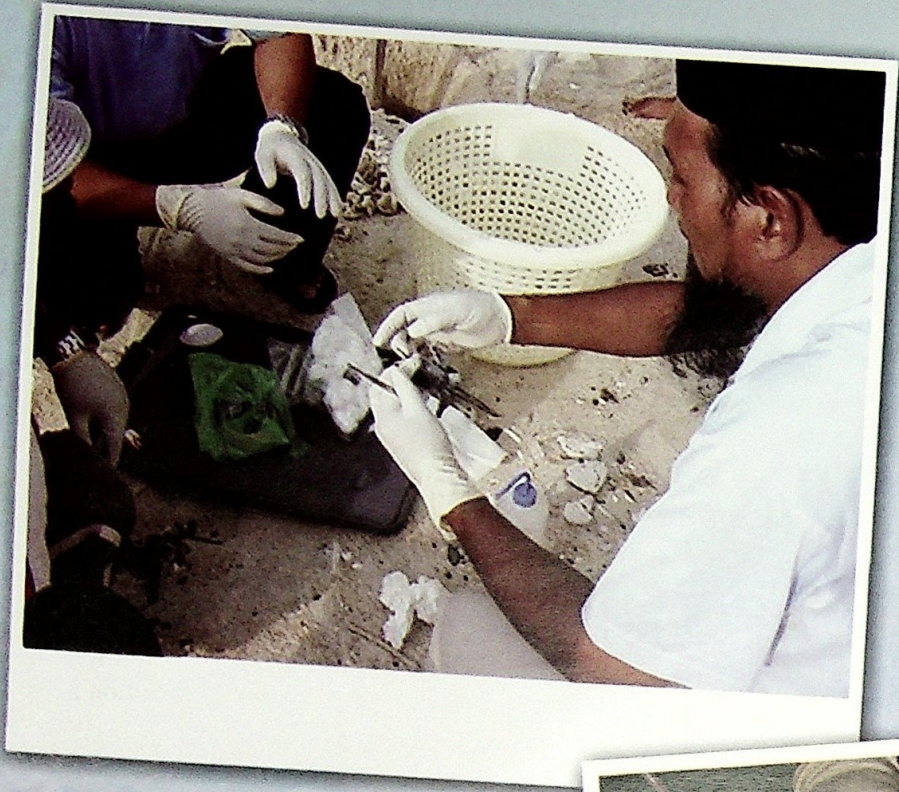
8. The Agenda of the Meeting was adopted.

### **V. REVIEW OF ACTIVITIES UNDER THE JAPANESE TRUST FUND I (JTF I) PROGRAM**

9. Mr. Ahmad Ali from SEAFDEC-MFRDMD made a presentation on the topic, highlighting activities and achievements made during 2001 to 2003. Under the JTF I program, two activities were conducted namely hatchery management and sea turtle tagging studies. In addition, SEAFDEC-TD conducted the demonstrations and experiments on TEDs in Vietnam, Indonesia, Myanmar and Cambodia in conjunction with the Special 5-year Projects on Responsible Fishing Technology and Practices. The Consultation noted with appreciation on the results of the program including 2 publications, proceedings, 13 technical papers and 41 information papers.
10. The Consultation was informed of the peer review of the publications of which positive responses were given by various fora. While noting the limitation of financial support to the program, the Consultation stressed on the need to promote collaboration among agencies, maximize the use of available funds, and requested continuous support from the Government of Japan.

### **VI. RECENT DEVELOPMENT ON SEA TURTLE ISSUES AT INTERNATIONAL AND REGIONAL LEVELS AND RELATED ASEAN-SEAFDEC DIRECTIVES**

11. Mr. Suriyan Vichitlekarn from SEAFDEC-Secretariat made a brief presentation on the topic. He stressed on the SEAFDEC policy to develop and implement regional programs to support the member countries in achieving sustainable development of fisheries in the region. While noting a number of threats to the sea turtles and wide spectrum of efforts by various agencies at various levels, he underlined the importance to focus on the comparative advantage of SEAFDEC and available resources when finalizing the project implementation plan. He pointed out that the JTF IV program should be utilized to support national initiatives and facilitate regional cooperation.
12. Mr. Vichitlekarn underlined the ASEAN-SEAFDEC directives in obtaining better understanding on the status of conservation and management of sea turtles including their interaction with fishing operations. Needs were also expressed in the development of monitoring and evaluation of programs and publicity work on efforts in conservation and management of sea turtles in the region.



**VII. PROVISIONAL PROGRAM PLAN OF JAPANESE TRUST FUND IV PROGRAM  
“RESEARCH FOR STOCK ENHANCEMENT OF SEA TURTLES”**

13. Mr. Zulkifli Talib from SEAFDEC-MFRDMD and Mr. Bundit Chokesanguan from SEAFDEC-TD presented details of the provisional program plan to be implemented under JTF IV. The JTF IV program was proposed as the continuation of the JTF I program covering four project areas. They are DNA studies, tagging and satellite telemetry, feasibility study of head-starting and sea turtles–fisheries interactions.
14. The Consultation was clarified that although the target species of the DNA study was green turtles considering their abundance but this did not exclude other species. Suggestion was also made to develop a sea turtle tissue bank through the sample collection. Note was also taken that 30 samples are considered the target for large population samples. However, where there is small population, the available samples are acceptable. It was also noted that criterion for site selection is the readiness of the participating member countries particularly in the manpower for tissue collection and tagging.
15. With respect to the DNA analysis of tissue samples, the Consultation agreed that the collected samples by the participating member countries should be sent to SEAFDEC-MFRDMD for analysis. Should any country have interest in conducting analysis on their own, or with the help of other agencies, additional sets of tissue samples can be collected. This could help comparing the results of the analysis between that of the country and SEAFDEC-MFRDMD. Along this line, the Consultation agreed that a standard of procedure and protocol for analysis should be developed and disseminated to member countries by SEAFDEC-MFRDMD.
16. With regards to the satellite telemetry study, suggestion was made that at least one of the three Platform Transmitter Terminals (PTTs) should be attached on male turtle where available/possible.
17. Considering the high cost implication for satellite telemetry and limited capacity for the DNA study, the Consultation strongly recommended that the program particularly related to the two studies should be promoted in collaboration with other agencies (such as SEASTAR2000) where policy and objectives of activities are similar.
18. The Consultation also suggested SEAFDEC-MFRDMD to continue the development of ASEAN-SEAFDEC regional database for tagging data of sea turtles under the JTF IV program.
19. In the project implementation plan, it was also suggested that regional meetings should be planned considering the progress of all project activities to obtain better understanding and linkages among activities in research on sea turtles.
20. As part of the project planning and implementation, the Consultation requested SEAFDEC-MFRDMD, SEAFDEC-TD and SEAFDEC-Secretariat to look into the development of key performance indicators to monitor and evaluate the results of the program to ensure its cost-effectiveness and greater program impacts to the region.



## **VIII. PROPOSALS ON NESTING SITE SELECTION FOR PROJECT IMPLEMENTATION OF JAPANESE TRUST FUND IV BY MEMBER COUNTRIES**

### ***BRUNEI DARUSSALAM***

21. Mr. Idris bin Haji Abdul Hamid presented the proposed turtle landing sites for DNA study in Brunei Darussalam. There were six sampling sites proposed for this study. They are major landing sites, easily accessible, monitored constantly by the Department of Fisheries and have good support from the community in those areas. Three species are found in Brunei Darussalam namely olive ridley, hawksbill and green turtles. Only one green turtle laid her eggs in Brunei Darussalam in 2004. A total of 42 turtles had been tagged in Brunei Darussalam and one was recently recovered.

### ***CAMBODIA***

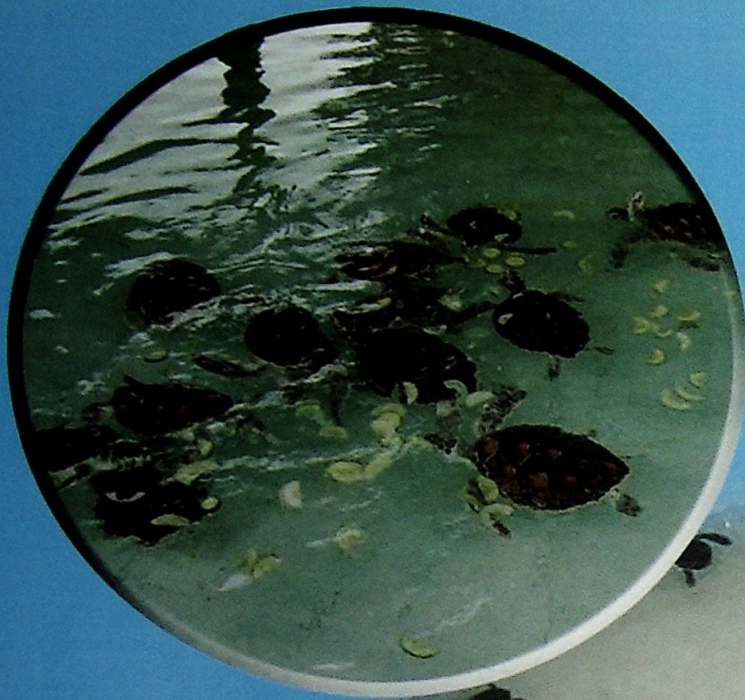
22. Mr. Pich Sereywath presented the nesting sites to be surveyed for sampling in Cambodia. There are 5 species of sea nesting in Cambodia. The activities and action to be taken for the projects (green turtle) in Cambodia were also presented. A total of 28 turtles had been tagged in Cambodia since 2002. He suggested Sihanoukville area for preliminary site selection but proper sites would be considered and selected through communication between SEAFDEC and Cambodia before implementing the projects.

### ***INDONESIA***

23. Ms Reny Puspasari presented the proposal for Indonesia. There are six species of sea turtles occurred in Indonesia. Indonesia supported the genetic population research but for the details SEAFDEC-MFRDMD should communicate further with the National Commission for Sea Turtle. There are six sites for undertaking this project, namely, West Sumatera, Natuna Island, Meru Betiri (East Java), Wakatobi (South East Celebes), Jamursba Medi (Papua) and Derawan Island (East Kalimantan). Indonesia would concentrate on green turtle. A total of 30 tissue samples from 30 turtles would be collected from each site for DNA study.

### ***MALAYSIA***

24. Mr. Kamarruddin bin Ibrahim presented the proposal for Peninsular Malaysia. The DNA study would be done at two sites in Peninsular Malaysia namely Mak Kepit Beach in Redang Island, and Ma' Daerah in the mainland. The satellite telemetry study would be undertaken at Pulau Upeh, Melaka (west coast of Peninsular Malaysia). The Mak Kepit beach was chosen because the big nesting population size (214-350 nests/season), and it had 3 contract workers. The beach is easily accessed, under the Department of Fisheries management and undisturbed. Meanwhile in Ma' Daerah, the nesting population is 140-236 nests/season, and 5 contract workers. This area is under the management of DoF and it is easily accessed, undisturbed, as well as has good facilities for conducting research.



25. The proposal for Sarawak was presented by Mr. James Bali. Major nesting beaches are at Talang Talang Besar Island, Talang Talang Kecil Island, and Satang Besar Island. Between 1,500 and 3,000 nests were recorded from these three islands every year. The feeding ground information was also mentioned. A total of 5,333 turtles were tagged since 1996 and some tag recoveries were recorded.
26. The proposal for Sabah was presented by Mr. Irwan Isnain. He listed down the criteria for selecting the sites. Turtle Islands Park is the major nesting site in Sabah. It consisted 3 islands namely Selinggaan, Bakkungan Kechil and Gulisaan. The Park is under the management of Sabah Parks and it is easily accessed, have security personnel, a major nesting site for greens and hawksbills, has good facilities and manpower for conducting research. Green turtle contributed 90% of the nests and the rest are from hawksbill and olive ridley.

#### ***MYANMAR***

27. The presentation for Myanmar was given by Mr. Cho Hla Aung. Thamee Hla Island and Zee Gon beach were selected for the studies. Thamee Hla is a nesting site of green and olive ridley turtles. Green turtles laid about 250 nests annually. Myanmar had tagged 284 turtles from 2002 to March 2005.

#### ***PHILIPPINES***

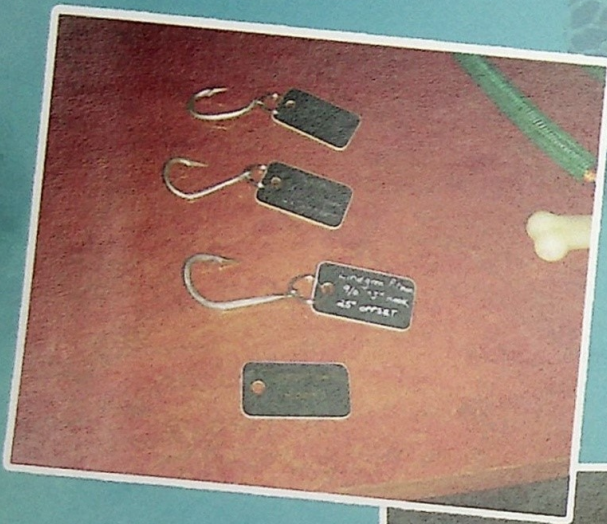
28. The presentation for the Philippines was delivered by Mr. Zulkifli Talib, on behalf of Mr. Daniel Torres who could not be present. There were 3 proposed sites namely Northern Sierra Madre Natural Park, Apo Reef Natural Park and Zamboanga del Sur.

#### ***THAILAND***

29. Mr. Anucha Sonjitsawat representing Thailand proposed nesting sites for the projects at Khram Island in the Gulf of Thailand, and Huyong Island in the Andaman Sea.

#### ***VIETNAM***

30. The presentation for Vietnam was presented by Mr. Phan Hong Dung. Five species of sea turtles exist in Vietnam. The major species are greens and hawksbills. He suggested Con Dao National Parks (southern part) and Minh Chau Island (northern part) selected as nesting sites for Vietnam. The green turtle was the major species nesting in these areas.





31. After deliberation, the Consultation adopted the provisional project plan as presented by SEAFDEC-MFRDMD and SEAFDEC-TD. The Consultation also concluded the nesting sites for the DNA and tagging studies as follows:

Countries	no of	Name of beach
Brunei Darussalam	1	Brunei Beach
Cambodia	1	Sihanoukville
Indonesia	5	Derawan, Meru Betiri, Wakatobi, Jamursba Medi and Belitung
Malaysia	4	Mak Kepit, Ma' Daerah, Sarawak Turtle Islands and Sabah Turtle Islands
Myanmar	2	Thamee Hla Island and Zee Gon beach
Philippines	3	Northern Sierra Madre Natural Park, Apo Reef Natural Park and Pitogo Island
Thailand	2	Khram Island and Huyong Island
Vietnam	2	Con Dao and Minh Chau

32. The Consultation identified Derawan, Indonesia as a candidate for satellite telemetry study to obtain a better understanding of migratory route of sea turtle in the region. The final site selection would be determined after a discussion between SEAFDEC-MFRDMD and SEASTAR2000.



## IX. PROJECT SCHEDULE 2005-2008

33. The Consultation proposed the following project activities and schedule under JTF IV from 2005-2008:

NO.	PROJECT ACTIVITIES	2005	2006	2007	2008
1.0	COMPONENT I: Meetings/Workshop/Training				
	· First RTC	Apr.			
	· Second RTC		Oct.		
	· Third RTC				Oct.
2.0	COMPONENT II: Research				
2.1	Project 1: DNA Study				
	· Publication of guidelines on sampling protocol				
	· Technical visit and on-site training				
	· Tissue sampling				
	· Stock identification of green turtle				
	· Detection of multiple paternity for estimation of stock size of male green turtles in a pilot nesting beach				
	· Publication of guidelines on laboratory working protocol				
	· Stock identification of hawksbill turtle				
	· Information collection on cloning				
	· Proposed regional plan of action				
2.2	Project 2: Tagging of sea turtles and satellite telemetry				
	· Compilation of data from previous tagging activities				
	· Identification of nesting beaches using updated information (pre-activities of tagging)				
	· Implementation of tagging activities				
	· Implementation of satellite telemetry study				

	· Development of population models by incorporating data from various sources				
	· Strengthening public awareness campaign				
	· Continuation of the development of database				
2.3	Project 3: Feasibility study on head-starting techniques				
	· Information collection				
	· Reviewing regional program				
2.4	Project 4: Interaction between sea turtles and fisheries				
	· Compilation on information of sea turtles interaction with fishing operations in Southeast Asia				
	· Comparative study on efficiency of circle hook and J-hook in pelagic and bottom longlines				
	· Assessment/evaluation of lessons learned from the introduction and promotion of TEDs in shrimp trawls				
3.0	COMPONENT III: Publications				
	· Proceeding of First RTC				
	· Proceeding of Second RTC				
	· Proceeding of Third RTC				
	· Compilations of information gathered from this study				

## X. OTHER MATTERS

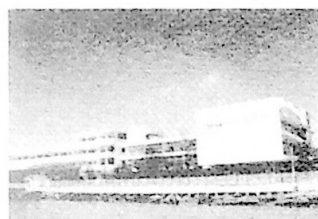
34. The Consultation also noted three areas of possible collaboration between SEAFDEC and IOSEA Marine Turtle MoU Secretariat as expressed by Mr. Douglas Hykle. These are the promotion of "Year of Turtle" in 2006, collaboration on sea turtle site network, harmonization of reporting in the progress of implementation of FAO guidelines to reduce sea turtle mortality from fishing operations.
35. The Report of the Regional Technical Consultation on Finalization of Implementation Plan on Research for Stock Enhancement of Sea Turtles was adopted on 26 April 2005 at Redang Island, Terengganu, Malaysia

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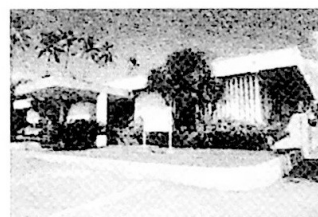
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