



# SEAFDEC-MFRDMD/DPPSPM HIGHLIGHTS 2007



Marine Fishery Resources Development and Management Department  
SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER  
Departemen Penyelidikan dan Pengurusan Sumber Perikanan Marin  
DEPARTMENT OF FISHERIES MALAYSIA





# SEAFDEC-MFRDMD/DPPSPM HIGHLIGHTS 2007

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SEAFDEC-MFRDMD/SP/16

# SEAFDEC-MFRDMD

## Mission

To Provide Assistance to SEAFDEC Member Countries in Matters Leading to the Sustainable Development and Management of the Fishery Resources in South-east Asia Through Research, Training and Information Dissemination.

## Vision

To be a Center of Distinction for the Sustainable Development and Management of Fishery Resources in Southeast Asia.

## Functions

To Provide a Regional Forum for Consultation and Cooperation in Research and Management of Fishery Resources.

To Coordinate and Implement Research Programs to Support Sustainable Development and Management of Fishery Resources in SEAFDEC Member Countries Through:

- Monitoring Condition and Exploitation of the State of Fishery Resources.
- Providing Scientific Basis and Appropriate Guidelines
- Providing Advice on Management of Fishery Resources

To Provide Training in the Field of Stock Assessment and Fisheries Management Towards Improving the Capacity of SEAFDEC Member Countries in the Sustainable Development and Management of Fishery Resources.

To Publish, Disseminate and Exchange Information Through;

- Regional Fora and Consultation in Research and Management

Intensification of Publication

# DPPSPM

## Mission

To generate information on fisheries biology and oceanography for the management of marine fishery resources and to develop resource friendly fishing gears, and to study their impact on resources.

## Vision

To be a Center of Distinction for the sustainable development and management of fishery resources in Southeast Asia.

## Functions

- To provide the information on biology and hydrography for the planning, management and development of capture fisheries.
- To provide information on current status of fishery resources to the fishers.
- To assess and estimate the biomass of fish stocks in Malaysian waters for proper management of fisheries.
- To provide information on tuna fishery for the development of this industry in Malaysia.
- To develop resource friendly and cost effective fishing gears.
- To develop the technology to forecast the productive fishing grounds.
- To assess the effectiveness of artificial reefs qualitatively and quantitatively for resource conservation.
- To restore degraded marine ecosystem for resource enrichment.
- To provide information on toxic level of the aquatic environment.
- To analyze the status of ecosystems and habitats and their link to the fishery resources.
- To undertake fish resource exploration.



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# Message from the Chief SEAFDEC- MFRDMD and Director of DPPSPM



*Outgoing Chief*



*Incoming Chief*

I wish to thank SEAFDEC-MFRDMD/DPPSPM for giving me this great opportunity to put on record final words from me as I am being succeeded by the Incoming new Chief/Director, Ms. Hajjah Mahyam Mohd Isa on 19 November 2007. First I must thank my Deputy Chief Dr Yoshinobu Konishi for giving the great support that I needed in implementing the Japanese Trust Fund Projects and also thank my colleagues and the staff for completing the SEAFDEC and national projects during my tenure as the Chief /Director from March 2004 until November 2007. I have enjoyed working for SEAFDEC and DPPSPM, and the SEAFDEC Secretariat has been most helpful in accommodating our requirements particularly in times of limited funding.

During the course of my service as the Chief of SEAFDEC-MFRDMD, times have been hard in terms of funding and many projects have to be deferred or shelved. Member Countries have been supportive of the efforts made by SEAFDEC-MFRDMD to provide advice and fora through regional consultations in the field of fisheries management. It is timely also that the Scientific Advisory Committee in Fisheries Management is in the process of establishment and Member Countries should provide full support as the Committee will ensure the sustainability of the fisheries in the region and thus food security for the people.

Many changes have been made and in particular the establishments of the Knowledge Management Center and the South China Sea Marine Fish Repository Center were realized. MFRDMD/DPPSPM also celebrated in a modest way its 15th year of establishment and I must thank the Honourable Dato' Junaidi Che Ayub, the Director-General of Fisheries Malaysia, also the SEAFDEC Council Director for Malaysia, for his support and guidance in the management of the MFRDMD/DPPSPM. I am confident that the SEAFDEC Secretariat and Malaysia and other Member Countries will give similar, or much more support, to my successor as she has the necessary experience.

With the first lady as Chief as well as Director, I am most confident that the efforts put in by the founders of the Fourth Department of SEAFDEC will be further enhanced and SEAFDEC-MFRDMD/DPPSPM could reach greater heights in achievements than before. I hope that I and the many others to come will do justice to the founders who had established this department, by ensuring that the department will continue to play its important role in fisheries management in the ASEAN region. One new aspect that I would suggest is that SEAFDEC-MFRDMD/DPPSPM should look into fund raising projects so that the projects can still continue to be conducted for the benefit of the people in the SEAFDEC countries.

Finally, I wish all who are serving or are about to serve SEAFDEC-MFRDMD as well as DPPSPM to continue keeping the spirit high in the region and to spread the spirit to other parts of the world. I must also take this opportunity to apologize to all in case I have not lived up to the high standards and expectations of the SEAFDEC. I wish to thank Allah, God Almighty for His Guidance and His Graciousness in granting the fruits of our efforts and in bringing the department to some level of heights towards becoming a center of distinction for fisheries management in the region.

**Raja Mohammad Noordin Raja Omar**



**Chief SEAFDEC-MFRDMD  
Director of DPPSPM**





# Message from the Deputy Chief SEAFDEC- MFRDMD



*Outgoing  
Deputy Chief*



*Incoming Deputy Chief*

Thank you for giving me the honor to convey my message for the HIGHLIGHTS of SEAFDEC-MFRDMD/DPPSPM 2007.

I have returned to Japan in October 2007 due to the end of my three years and three months tenure as the Deputy Chief of SEAFDEC-MFRDMD, and have been replaced by Dr. Osamu Abe. The Duty of the Deputy Chief is officially to plan and manage the Japanese Trust Fund (JTF) projects as well as to give technical assistance to the SEAFDEC Secretariat and other SEAFDEC Departments. During the last three years, SEAFDEC-MFRDMD has promoted the implementation three JTF programs: “Information Collection for Sustainable Pelagic Fisheries in the South China Sea” under the JTF II project from 2002 to 2006; “Tagging Program for Economically Important Pelagic Species in the South China Sea and Andaman Sea” under the JTF II project from 2007 to 2011; “Research for Stock Enhancement of Sea Turtles” under the JTF IV project from 2004 to 2008. I wish to express my sincere thanks to the staff of the SEAFDEC-MFRDMD as well as research officers of the SEAFDEC-TD and the participating SEAFDEC member countries for their collaboration in the programs, and Japanese resource persons for their technical support.

In 2007, the outcomes of the former JTF II program by the member countries from 2002 to 2006 were compiled and published as Volume 1 of the Terminal Report. Besides the national terminal report, the regional analysis are made by SEAFDEC-MFRDMD and SEAFDEC-TD and will be published as the Volume 2 soon. In this program, information on the current status of pelagic fisheries and operation of purse seine fishing gear, and biological data of the targeted small pelagic fishes in the South China Sea were collected and analyzed. Additionally, sub-population analysis was carried out for the selected species by using genetic and morphometric methods. Unfortunately, structure of subpopulations for the species in the South China Sea is still not clear. Since this issue is very crucial for managing and sustaining pelagic fish resources, the pelagic fish tagging program was started in 2007 under the second phase of JTF II project. To plan for the program and facilitate tagging experiment from 2008, demonstration of tagging and the First Core Expert Meeting were held in Samut Sakorn, Thailand in May 2007 with technical help of SEAFDEC-TD. It is strongly envisaged to obtain scientific evidences toward effective management plan of pelagic fisheries for its sustainability through the 1st and 2nd phases of JTF II project.

Regarding the sea turtle program of JTF IV project, regional compilation of information on reproductive behavior of females at rookeries, migratory routes to foraging sites, and possible incidental catch and poaching of sea turtles is an outcome that needs special attention of this program. This information is the fruit of collaborative activities on tagging using inconel tag and satellite telemetry tracking by the JTF and national projects since the late 1990s.

The present JTF IV program includes an activity for detection of sub-populations of green and hawksbill sea turtles in the Southeast Asia region by genetic method. As sea turtles have a unique habit like homing, as in salmon, this method could give positive evidences for the research issue. In 2008, this program is scheduled to terminate, and I hope that the information and valuable terminal report will be published to facilitate possible next program of JTF project on sea turtles from 2009, and the outcomes will be disseminated to the world.

The year 2007 was the 15th anniversary of SEAFDEC-MFRDMD's establishment. In such a memorial year, the Department faced changes of the top two persons at the same time. I believe that SEAFDEC-MFRDMD will continue to play an important role to realize its mission under the new Chief (Ms. Hajjah Mahyam Mohd. Isa) and Deputy Chief (Dr. Osamu Abe) in 2008 onwards.



**Dr. Yoshinobu Konishi**  
**Deputy Chief SEAFDEC-MFRDMD**



# JAPANESE TRUST FUND II

## Tagging program for economically important pelagic species in the South China Sea and Andaman Sea

This program is a successor program to the JTF II, entitled "Information Collection for Sustainable Pelagic Fisheries in the South China Sea" conducted from 2002 to 2006. It is planned to be carried-out in collaboration with TD for five years from 2007 to 2011, to complement the previous study and results particularly on sub-population. In addition, the program will also covers the Andaman Sea as well as the South China Sea following requests by the eight participating SEAFDEC member countries, namely Brunei



Mr. Abu Talib

*Mr. Abu Talib bin Ahmad - Technical Coordinator*

Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Thailand and Vietnam.

The program consists of two projects. The first project has three activities namely a demonstration of tagging procedures and the First Core Expert Meeting which were held in Samut Sakorn Province, Thailand, on 1 May and 2-3 May 2007, respectively. These two activities were attended by technical officers representing the participating SEAFDEC member countries, the resource persons as well as officers and representatives from SEAFDEC Secretariat, TD and MFRDMD.



*Demonstration on tagging procedures and practices by the staff of MFRDMD and TD in Manila Bay, Philippines on 10-11 December 2007*



*The First Core Expert Meeting in Samut Sakorn Province, Thailand on 2nd – 3rd May 2007.*

The third activity is on-site training on tagging in each participating member country conducted by the technical officers of MFRDMD and TD together with the Technical Officer of the country. The training in Indonesia was done in Muara Baru on 1 – 2 November 2007, Brunei Darussalam in Muara on 19 – 20 November 2007, Malaysia in Semporna on 22 – 23 November, Thailand in Rayong on 26 – 27 November 2007 and the Philippines in Manila Bay on 10 – 11 December 2007. Due to unavoidable situations, the training sessions in Cambodia, Myanmar and Vietnam were postponed to January 2008. The Standard Operating Procedures for tagging were finalized during these trainings.



The on-site training sessions in Indonesia, Brunei Darussalam, Malaysia, Thailand and the Philippines were conducted in November and December 2007.

The second project of the program is tagging operation that involves the preparation of poster to create public awareness on this tagging program. A standard poster in English was designed and presented to the participating countries during the on-site training. The poster was also translated into local languages.

**PROGRAM PENANDAAN IKAN KEMBUNG DAN SELAYANG (2008 - 2010)**

RM15.00

"PANJANG CABANG"

**JIKA ANDA TERTANGKAP ATAU TERJUMPA IKAN BERTANDA:**  
**SIAPA PERLU ANDA HUBUNGI: PEJABAT PERIKANAN YANG BERTAMPIRAN**

**APA ANDA PERLU LAKUKAN:**

- JIKA IKAN DAPAT DISIMPAN:
  - Simpan ditempat bekulpet sejuk
  - Serah atau hubungi Jabatan Perikanan untuk mengambil ikan tersebut
- JIKA IKAN TIDAK DAPAT DISIMPAN:
  - Catat nombor penanda
  - Catat tarikh & lokasi ikan ditangkap/dijumpai
  - Catat jenis dan "Panjang Cabang" ikan
  - Tuliskan nama, alamat & no telefon anda
  - Hantar penanda & maklumat di atas kepada Pejabat Perikanan bertampiran

**MENGAPA?** Mengkaji pengiraan ikan Kembang dan Selayang di Laut China Selatan & Laut Andaman (Selat Melaka)

**SPESIS APA?** Kembang dan Kembang Pelaling (Temenuk, Pelaling, Rumahan) Selayang dan Selayang Jarum (Selayang Bulat, Basong, Sardin, Curut)

**Maklumat lanjut:**  
[www.mfrdmd.org.my/program/tagging](http://www.mfrdmd.org.my/program/tagging)

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Dengan Kerjasama:  
 Training Department (SEAFDEC-TRD)  
 Bangkok, Thailand

The SOP and standard poster for the tagging program.

SOP For Tagging Of Fish | 2007

SEAFDEC

**STANDARD OPERATING PROCEDURES (SOP)**

For Tagging of Small Pelagic Species

"Tagging Program for Economically Important Pelagic Species in the South China Sea and Andaman Sea", 2007 - 2011

Conducted by:  
 SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER,  
 MARINE FISHERY RESOURCES DEVELOPMENT AND MANAGEMENT DEPARTMENT

In collaboration with:  
 SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER,  
 TRAINING DEPARTMENT

# JAPANESE TRUST FUND IV

## Research for Stock Enhancement of Sea Turtles

MFRDMD was given the responsibility to conduct the Japanese Trust Fund IV program – Research on the Stock Enhancement of Sea Turtles. The study started in 2005 and would be completed in December 2008. As the leading Department, MFRDMD has appointed Mr. Syed Abdullah Syed Abdul Kadir as Technical Coordinator for the project. Technical officers were also appointed from all the SEAFDEC member countries except Lao PDR and Singapore. The study covers the sea turtles stock identification, detection of multiple paternities of male green turtles, tagging and satellite telemetry.



*Mr. Syed Abdullah S. A. Kadir -  
Technical Coordinator*

## Regional Core Group Meeting on Tagging and Satellite Telemetry of Sea Turtle

In 2007, Regional Core Group Meeting on Tagging and Satellite Telemetry of Sea Turtle was conducted on 4th June 2007 in Kuala Lumpur. The meeting was organized as a mini-symposium to overview the regional tagging and satellite telemetry studies in Southeast Asia. Information on migration routes and foraging habitat of sea turtles with reference to sea turtles-fisheries interaction in the region was compiled based on papers presented at the meeting by participating SEAFDEC member countries and Technical Coordinator.



## The Second Technical Consultation Meeting on Research For Stock Enhancement of Sea Turtles.

Following the Regional Core Group Meeting, MFRDMD also conducted The Second Technical Consultation Meeting on Research For Stock Enhancement of Sea Turtles from 5 to 7 June in Kuala Lumpur. The objective of the meeting is to discuss results and findings of the project activities conducted from 2005 to 2006. Thirty participants attended the meeting including the Technical Officers from participating SEAFDEC member countries, Technical Coordinator and Resource Persons and observers.



## Identification of the stock population of sea turtles in the Southeast Asian region

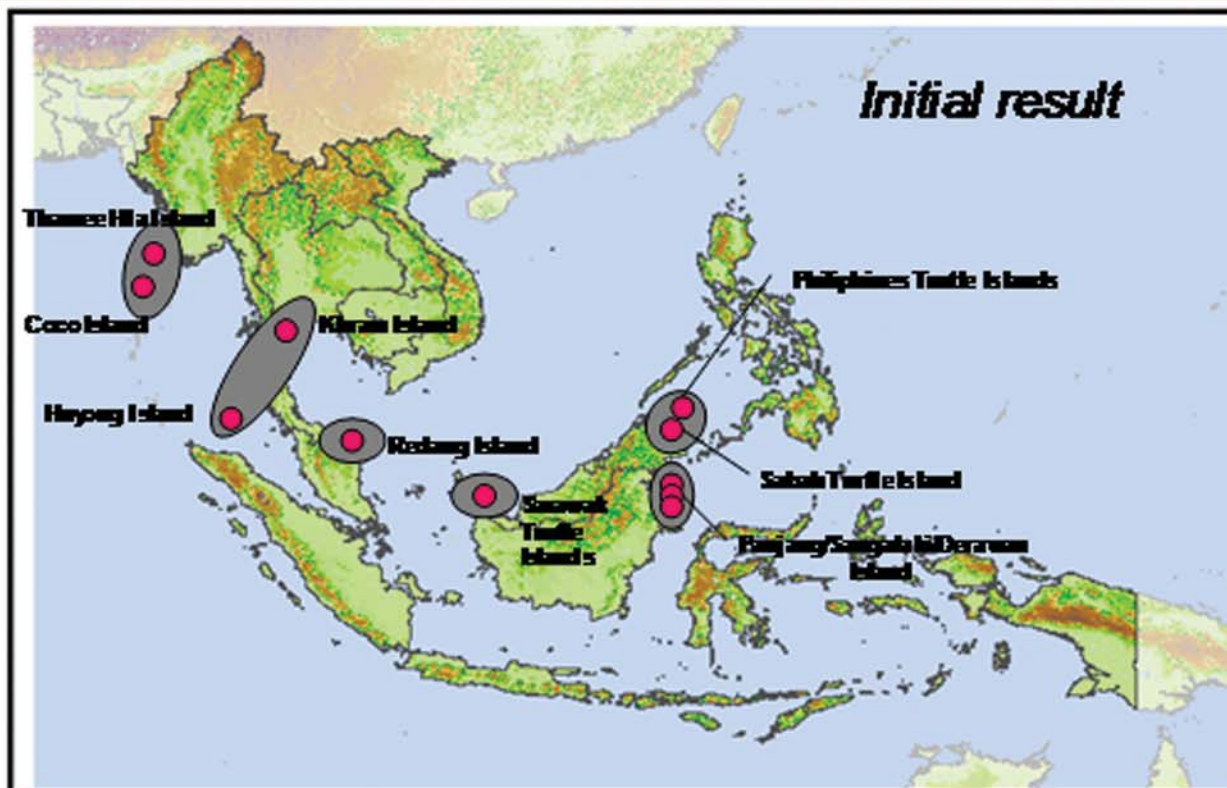
In 2007, 300 tissue samples of green turtles from 13 sampling sites in the Southeast Asian region were analyzed. Preliminary results indicate that several sub-population of nesting green turtles had occurred in Thamee Hla Island – Coco Island (Myanmar), Khram Island - Huyong Island (Thailand), Redang Island (Malaysia), Sarawak Turtle Island (Malaysia), Philippine and Sabah Turtle Island (Malaysia and Philippines) and Derawan archipelago (Indonesia). This result was presented during the Program Committee Meeting from 26-28 December 2007 in Iloilo, Philippines. Collection of tissue samples of hawksbill turtles from 15 selected sampling sites is in progress. About 100 tissue samples of hawksbill turtles from two sampling sites, Melaka (Malaysia) and Segamat / Belitung (Indonesia) had been analyzed.



Selected sampling sites for collecting tissue samples of green turtles in the Southeast Asian region



Several sub-populations of nesting green turtles occur in the Southeast Asian region based on DNA profiling



## Detection of Multiple Paternities of Male Green Turtles at Mak Kepit Beach, Terengganu

A total of 300 tissue samples of hatchling green turtles from 10 nesters in Mak Kepit beach, Redang Island of Terengganu, Malaysia were analyzed. The initial findings showed that most of the females mate with only one adult male green turtle. The results are shown in the table below.

### Initial results on multiple paternities of male green turtles at Mak Kepit nesting beach, Redang Island (Terengganu, Malaysia)

Clutch	No. of samples analyzed	No. of paternal allele	Conclusion
B	15	3	>1 father
C	12	3	>1 father
D	9	3	>1 father
E	8	2	1 father
F	10	2	1 father
G	0	-	-
I	9	1	1 father



Source: <http://www.seaturtle.org>.



## Regional Satellite Telemetry Study

An adult female hawksbill turtle with curve carapace length (CCL) of 79.0 cm and curve carapace width (CCW) of 68.0 cm and weighing 47 kg was released at Pengkalan Balak, Malacca nesting beach on 14 July 2007. This turtle had been detected until 13 August 2007 and migrated near Port Dickson waters, Negeri Sembilan Malaysia.



One green turtle with CCL of 102 cm and CCW of 90 cm and weighing 130 kg was released at Con Dao Island, Vietnam on 30 August 2007. Until 14 November 2007, this turtle had migrated to southern part of Kalimantan and proceeded to Sulawesi Island, Indonesia.

## Regional Sea Turtle Tagging Study

Tagging activities of sea turtles using inconel tags have been carried out in SEAFDEC participating member countries since 1999. The current status on tagging activities in the region was presented by Technical Officers from SEAFDEC member countries during the Second Technical Consultation Meeting from 5 to 7 June 2007 in Kuala Lumpur. The PIT tagging activity was implemented at Mak Kepit beach of Redang Island, Terengganu, Malaysia.



## Collaborative Study on Satellite Tracking of Sea Turtle

This study was conducted in collaboration with the Department of Fisheries Malaysia (DoFM) at a nesting site, Kerachut, Pulau Pinang. This activity was funded by the State Government of Penang through Penang Fisheries Office.

An adult female green turtle with CCL of 95.0 cm and CCW of 80.0 cm and weighing 105 kg was released on 5 April 2007. This turtle had been detected until 28 May 2007 and migrated to Bintan Island, Riau Archipelago, Indonesia.



# NATIONAL RESEARCH ACTIVITIES

## Fish Forecasting Program

The project on the Research and Development of Fish Forecasting System was initiated in 2006 in waters off the east coast of Peninsular Malaysia. The project is a collaborative work between the Department of Fisheries Malaysia, Fisheries Development Authority of Malaysia (LKIM), Malaysian Center for Remote Sensing (MACRES), National Fishermen Association (NEKMAT) and MIMOS Berhad. This project will end in 2010.

The project comprises 5 major components namely oceanographic/hydroacoustic and fisheries surveys (including data collection at jetty/vessel); satellite data receiving and analyses; database development; modeling



Technical visit to Japan

and information dissemination. A technical visit to Japan was organized from 29 July to 3rd August 2007 to study about the fish forecasting program in Japan.



*Hydroacoustic survey using scientific echosounder on board the research vessel KK SENANGIN II.*

For the oceanographic/hydroacoustic surveys, the DOF has utilized the research vessel KK SENANGIN II which is equipped with the scientific echo-sounder Furuno FQ80 system. Using this equipment, the density and biomass of fish could be determined for the whole study area. During the survey, oceanographic data was also collected.



*Oceanographic survey carried out at pre-determined sampling stations during acoustic survey.*

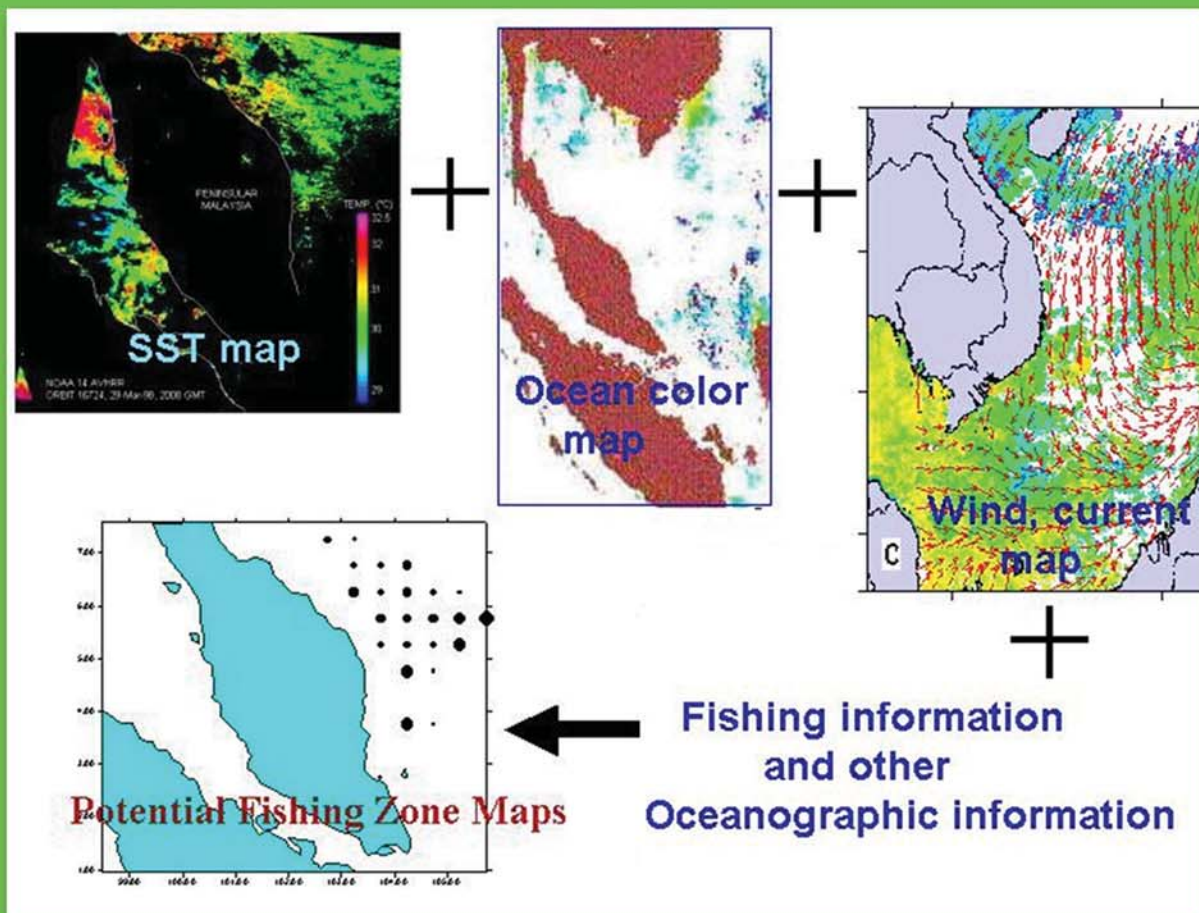
There were eight research surveys conducted in 2007 covering the waters of Kelantan, Terengganu, Pahang and Johor. 145 sampling stations have been covered in the surveys. The first cruise was conducted from 13 -20 April 2007, second cruise on 22-25 April 2007, third cruise (14-22 May 2007), fourth cruise (12-18 June 2007), fifth cruise (22-28 June 2007), sixth cruise (27 August - 1 September 2007), seventh cruise (4-9 September 2007) and the eighth cruise was conducted from 23-27 October 2007. Researchers from UKM and MACRES also participated in the last three cruises. All the cruises utilized a purse seiner for catching pelagic fish for acoustic data validation.



The lecture on taxonomy or fish identification was delivered to the enumerators during a short course carried out at DPPSPM, Terengganu.

The fish catch information was gathered from 36 deep-sea purse seiners. Enumerators who are under LKIM supervision are stationed on each of the vessels to collect information on fishing activities, which include date, time, GPS location, fish type and approximate weight of the catch. All the enumerators, who are also fishermen, have undergone a special training at DPPSPM on 21-23 May 2007.

The observation on sea conditions using satellite is headed by MACRES. The data is received by a receiving station located in Mentakab, Pahang. Among the data received by MACRES for this project are the sea surface temperature (NOAA AVHRR and Aqua/Terra MODIS satellites), ocean colour (chlorophyll-MODIS and OCM) and surface current (radar and scatterometer). All the data gathered either during survey cruises, by enumerators or by satellites are analyzed and modeled. This work is led by MIMOS. Preliminary results indicates that high density of pelagic fish were found in the northern part of Peninsular Malaysia. The outcome from the modeling work will act as a basis for fish forecasting. Information on potential fishing grounds will be posted either through the internet or mobile phones.



## Juvenile and Trash Excluder Device (JTEDs)

This project is under the Catch Quality Enhancement program. This study aims to test suitability and efficiency of several JTEDs. In 2007, the study was conducted in two phases ie; during neap tide (7-10 August) and spring tide (12-15 August) in Zone B off Bagan Datoh, Perak. This study involved 3 Zone B shrimp trawlers in Sg. Tiang and 4 fish trawlers in Sg. Burung. The devices used in this study are (i) fishermen cod-end (mesh size  $\leq 25$  mm), (ii) JTEDs with 15 mm bar and 38 mm mesh size cod-end, (iii) 38 mm mesh size cod-end (iv) 50 mm mesh size cod-end. Initial findings showed that the fish trawler with fishermen cod-end managed to catch fish of which 49.88% were commercial and 50.13% trash. As for fishermen cod-end attached with JTEDs 15 mm bar, 55.33% were commercial and 44.67% trash. Shrimp trawler with fishermen cod-end managed to catch fish of which 44.33% were commercial and 55.67% trash.



*A JTED fixed to a fish trawl ready for testing.*



*A JTED being hauled onboard after testing.*



*The catch was sorted by species and their weight of each species was recorded.*

## Malaysian Acetes Efficiency Device (MAED)

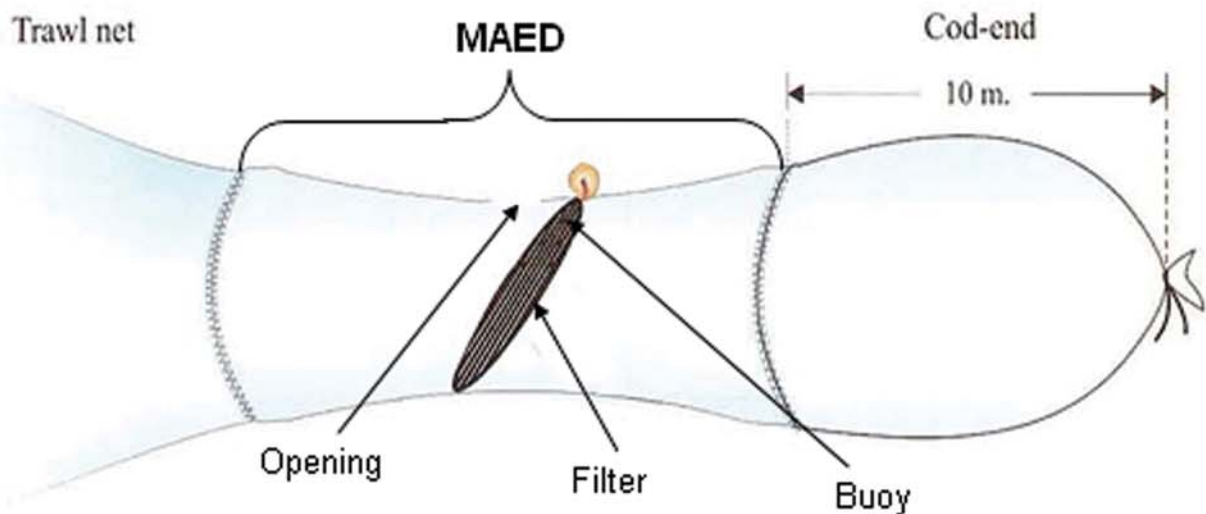


*Some of the shrimp trawlers used during the study.*

A device known as MAED (Malaysian Acetes Efficiency Device) has been designed. Adopted from Swedish technology, this device is designed to retain almost all of the Acetes in the cod-end which could pass through the slating filter. However most of the by-catch, such as fish and jelly fish, which could not pass through the filter will be guided and released through the special opening. The filter is collapsible so that it could be hauled in the net drum.



*Turtle Excluder Device (TED) from Swedish technology could be hauled in the net drum.*



*The Malaysian Acetes Efficiency Device which is attached to the trawl net.*

About 100 trawlers in Perak and Selangor have used small mesh netting as cod-end (9 mm – 12 mm) to harvest *Acetes* in Zone B waters. A special technique is used to catch mainly the *Acetes* (> 90% of the catch composition). The retained by-catch (especially juvenile fish) is very minimal, thus the small mesh cod-end is allowed for these trawlers. However some additional conditions should be imposed to avoid the other trawlers taking advantage to catch juveniles of fish by using the small mesh cod-end. One of the conditions that could be considered is the use of a special device that could retain only the *Acetes* and release the by-catch especially the juveniles.



*Acetes that have been caught by shrimp trawlers during the study.*

Preliminary study was conducted on 7 – 15 August 2007 off Sg. Tiang Perak. The result indicated that the MAED is capable of releasing more than 80% of the by-catch and improve the quality of *Acetes* (i.e. clean from by-catch especially jelly fish). However, about 30% of *Acetes* has also been released. Some weaknesses on the construction of the device were also observed. Thus the design and the specification of the device will be further improved and tested before being introduced to the trawlers.



*The catch was sorted and the weight of each species was also recorded.*

## Research on Soft Bottom Artificial Reef

A total of 42 units of artificial reef for soft bottom sea-bed were deployed in Selangor and another 16 units in Kedah in 2007. Each unit measured 3 m long, 3 m wide, 3.6 m high and weighed 14 tonnes. The reef will enhance the demersal resources in the coastal area and at the same time protect the coastal area from illegal trawlers. Study conducted by scuba diving and using a CCTV at the Pulau Payar site showed that more than 10 species of demersal and semi pelagic fish aggregated around the structure. These include groupers, snappers and barracudas. Data on the condition of the reef will be collected in 2008 by scuba diving as well as by fishing.



*Deployment of artificial reef for soft bottom at Kuala Teriang, Langkawi, Kedah.*



*Some of the fish species near the artificial reef structure.*



# REGIONAL MEETINGS

## Eighth Information Staff Exchange Program (ISEP)

SEAFDEC-MFRDMD hosted the 8th ISEP Meeting from 13-15 November 2007 in Kuala Terengganu. The meeting was participated by senior officials and information officers of the Secretariat, TD, MFRD, AQD, and MFRDMD. The objective of the meeting is to improve the SEAFDEC information tools to cope with recent requirements and situations. The Meeting also discussed the progress of the information related activities conducted by SEAFDEC Secretariat and all four departments, to enhance the visibility of the Center.



# NATIONAL SEMINAR/ WORKSHOP/TRAINING

## Identification Of Fish Larvae Training Course

Abundance of fish larvae is an indicator of fertile water. Published literatures on studies of fish larvae in Malaysian waters in the South China Sea are limited. Knowledge on the morphology, spawning season, spawning and nursery grounds are important for proper fisheries management. Realizing the importance of fish larvae study in fishery research work, a training course entitled "Identification of Fish Larvae" was conducted from 3-6 September 2007 at DPPSPM Kuala Terengganu. The course aims to disseminate knowledge on the proper technique of larval identification to researchers. This course was attended by participants from various research centers dealing with marine resources in Malaysia. The training course consists of lectures and hands-on work. Great emphasis was given on laboratory work so as to enhance the participants skill in fish larvae identification.



## Training on the Taxonomy and Biology of Sharks and Rays



A 5-day training course was conducted at MFRDMD, Kuala Terengganu from 25 - 27 September 2007. The training was attended by fishery assistants from various states. The course includes lectures and laboratory activities. The training is one of the activities proposed under the National Plan of Action for the Conservation and Management of Shark. It is hoped that by 2010 most of the dominant shark and ray species will be recorded at species level other than "sharks" and "rays" as stated now in the Annual Fishery Statistics.

## Workshop on Book Writing Technique for Publication

The training was conducted at MFRDMD Kuala Terengganu from 24-27 June 2007. A 3-day workshop was jointly organized by DPPSPM and "Dewan Bahasa dan Pustaka". It was attended by researchers from TUMEC, MAREC, MAFPREC and NAPFRE. Four proposals to write books on sharks, sea turtles, mangrove, and seabass were presented. These books will be published by "Dewan Bahasa dan Pustaka" in Malay Language.



## Malaysian Technical Cooperation Program – Fishery Resources Management Course

The Fishery Resources Management Course under the Malaysian Technical Cooperation Programme for 2007 was conducted for 45 days, from 2 July – 15 August 2007. The course was attended by 13 participants from 10 countries: Mr. Zahirul Hoque (Bangladesh), Mr. Azhar b. Engin (Brunei Darussalam), Mr. Hyon Jon (DPR Korea), Mr. Kun Hak (DPR Korea), Mr. Magdy Ahmed Abdou Abd El Wahed (Egypt), Ms. Nilar Kywe (Myanmar), Ms. Yin Pa Pa Tun (Myanmar), Mr. Allah Dad Talpur (Pakistan), Mr. Abdel Wahab Muzamil Adam Ibrahim (Sudan), Mr. Ali Molah Mohmed Osman (Sudan), Mr. Palu Faupula (Tonga), Ms. Erina Nalunga (Uganda) and Ms. Farizan Samat (Malaysia). The module consists of five general topics, i.e. Introduction, Fisheries Management, Stock Assessment and Fish Biology, Fishing Gears and Fisheries Interaction, and Conservation and Management of Biodiversity. Other related activities included in the course are Homestay, Sea-Cruise, Technical Observation Visit, Case Studies and Practicals.



## Workshop on Hydroacoustic and Oceanographic Data Processing for Fish Forecasting

The Workshop on Hydroacoustic and Oceanographic Data Processing was held from 27-29 November 2007 in Pulau Langkawi. The objectives of this workshop were to expose all agencies involved in the project on data handling and processing especially for fisheries hydroacoustics. All representatives from the collaborating agencies i.e. Department of Fisheries Malaysia (DoFM), Fishery Development Authority of Malaysia (LKIM), MACRES and National Fishery Association (NEKMAT) as well as representatives from UMT, UKM and UTM attended the workshop. The principles of hydroacoustic and oceanographic survey, data collection, details on hydroacoustic data analysis and *Six-Sigma* Modeling techniques were among the topics covered during the workshop.



## DPPSPM welcomes 11 Industrial Training Students from Local Universities and Colleges (18 Dis. 2006 – 30 Sept 2007)

DPPSPM is one of the popular government offices for university students to conduct their Industrial Training. In previous years, between 10 to 20 students from various local universities had undergone their Industrial Training simultaneously at this Centre. Starting 18 December 2006, DPPSPM received six Diploma in Fisheries students from Universiti Putra Malaysia (Bintulu Campus in Sarawak) and also from the Universiti Malaysia Terengganu. Another group consists of 5 students from University of Malaya and Universiti Sains Malaysia.



The main objectives of the Industrial Training Program are to expose the students to job experience and enhance their knowledge during their attachment period. In 2007, the students were exposed to field works (sea turtle and JTED's project) as well as laboratory works (molecular biology, fish resources and fish larvae). In addition, some of them were exposed to the management of field data using specific computer softwares. Excursion to the Terengganu State Fisheries aquaculture projects in Tasik Kenyir was also included in the training program.



*Field trip to Terengganu State Fisheries aquaculture project and Aquaculture Industry Zone cage culture in Tasik Kenyir, Terengganu*

## SPECIAL EVENTS

### 15<sup>th</sup> year Celebration of SEAFDEC-MFRDMD/DPPSPM Establishment

SEAFDEC-MFRDMD/DPPSPM celebrated its 15<sup>th</sup> year anniversary on 10 July 2007. The Guest of Honor, Dato' Junaidi Che Ayub, the Director General of Fisheries Malaysia, who is also the SEAFDEC Council Director for Malaysia officiated the celebration. More than 150 guests from the Department of Fisheries Malaysia and various agencies attended the celebration. It is hoped that with continuing support, effort and cooperation from all, SEAFDEC-MFRDMD/DPPSPM will continue to contribute to sustainable fishery resources management, thus providing both economic and social benefits to the region. In conjunction with this celebration, SEAFDEC-MFRDMD has launched the book entitled "The 4<sup>th</sup> Department — A Pictorial Journey to Distinction".



*"...There have been a lot of significant developments and changes during these few years on the role and visibility of MFRDMD in the South East Asian region. With the support and cooperation from many people, the SEAFDEC Secretariat and sister Departments, Member Countries, SEAFDEC-MFRDMD has developed and implemented many research programs and established international linkages and partnerships...". — Dato' Junaidi Che Ayub*



## The Establishment of Repository Center for Marine Fish in South China Sea

In conjunction with the 15<sup>th</sup> year anniversary of SEAFDEC-MFRDMD on 10 July 2007, the Repository Center for Marine Fish in the South China Sea was also officiated by Dato' Junaidi Che Ayub.

The function of the Repository Center is to provide a broad range of services to the ASEAN member countries in terms of archiving, cataloguing and maintaining an extensive collection of taxonomic reference specimens and literature for use in identifying marine fauna.

The collection of the specimens from the South China Sea was started in 1996 and covers the South China Sea (Malaysia and Vietnam) and Sulu Sea. To date a total of 342 marine fish specimens including shark species had been collected and preserved.



## Launching of Fish Forecasting Project

The fish forecasting project was successfully launched by the Honourable Dato' Junaidi Che Ayub, the Director-General of Fisheries Malaysia on 14 August 2007, at DPPSPM Kuala Terengganu. The Director of MACRES, the Chief Executive Officer (CEO) of MIMOS Berhad and the General Manager of NEKMAT were among the guests at the ceremony.



## Farewell Dinner for Deputy Chief SEAFDEC-MFRDMD

SEAFDEC-MFRDMD had organized a farewell dinner on 15 September 2007, to bid goodbye to **Dr. Yoshinobu Konishi** after completing his task as the 5th Deputy Chief of MFRDMD. Dr. Konishi has contributed and shared his knowledge and experiences in various program and activities during his 3-year service to the department. He has successfully supervised the project leaders in the implementation of the Trust Fund Projects. Dr Konishi will be attached to his former institution, the Seikai National Fisheries Research Institute in Nagasaki.



## Farewell Lunch for Chief SEAFDEC-MFRDMD/ DPPSPM

A farewell lunch was organized by SEAFDEC-MFRDMD/ DPPSPM on 15 November 2007, as a mark of sincere gratitude and thanks to **Mr. Raja Mohammad Noordin Raja Omar** who is now appointed as the new Director of Research at the Fisheries Research Institute, Penang. He now leads the whole fishery research activities under the DoF Malaysia. In his farewell speech, he stressed on the importance of the department to keep up the positive work attitude and adopt high end value added technologies to fulfill the needs of the fisheries sector at the national and regional levels.



# VISITORS TO SEAFDEC-MFRDMD/DPPSPM

In the year 2007, few visitors had visited SEAFDEC-MFRDMD.

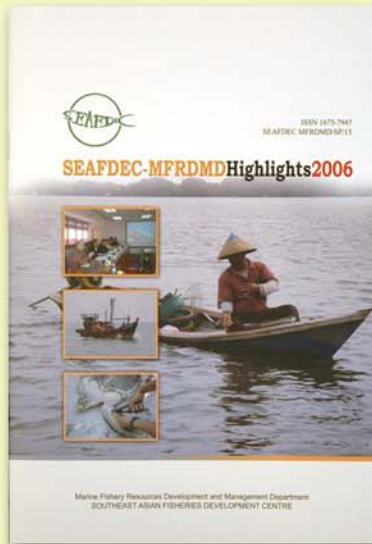
No	Visitors	Date
1	The Honorable Dato' Ahamad Sabki Mahmood Deputy Director-General of Fisheries Malaysia	4 April 2007
2	The Honorable Dato' Seri Dr. Salleh Mohd Nor Deputy Chairman of Sultan Mizan Foundation	25 July 2007
3.	Fishery Officers (10 persons)	10 Sept 2007
4.	MTCP INTAN Kuala Lumpur (12 persons)	20 Sept 2007
5.	Students from school SM Kompleks Seberang Takir (35 persons)	28 June 2007



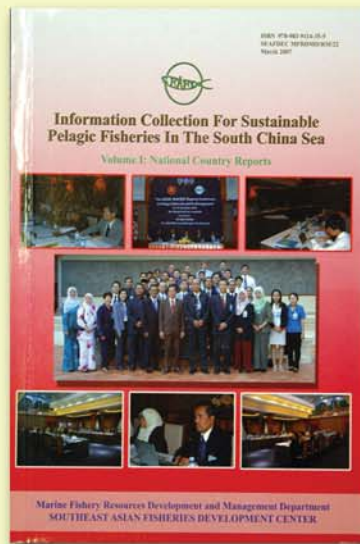


# PUBLICATIONS

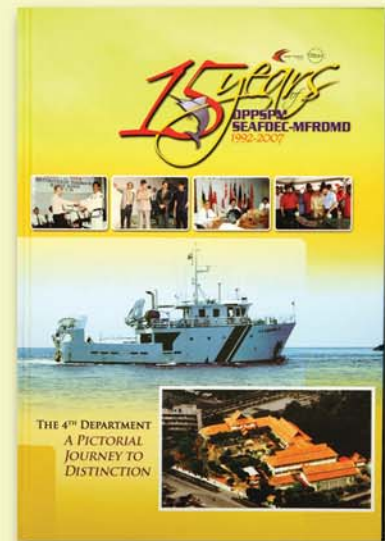
In 2007, SEAFDEC-MFRDMD/DPPSPM had published several books and monographs as follows:



**SEAFDEC-MFRDMD  
Highlights 2006**



**Information Collection for  
Sustainable Pelagic Fisheries  
in the South China Sea.  
Volume 1: National Country  
Report**



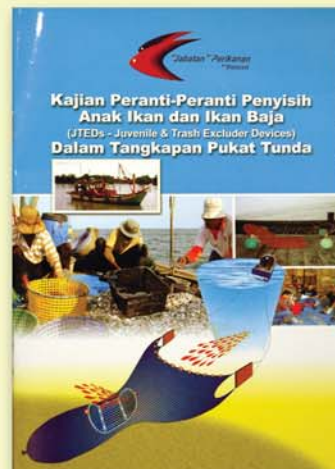
**15 years of DPPSPM  
SEAFDEC-MFRDMD: The 4<sup>th</sup>  
Department : A Pictorial  
Journey to Distinction**



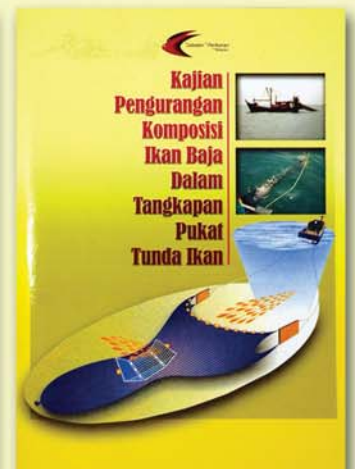
**Penyelidikan Tukun Tiruan  
Dasar Lembut Di Kedah**



**Projek Tukun Perdana  
Negeri Terengganu Darul  
Iman 2006-2010**



**Kajian Peranti-peranti  
Penyisih Anak Ikan dan  
Ikan Baja (JTEDs –  
Juvenile & Trash  
Excluder Devices) Dalam  
Tangkapan Pukat Tunda**



**Kajian Pengurangan  
Komposisi Ikan Baja  
Dalam Tangkapan Pukat  
Tunda Ikan**

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# SEAFDEC

The Southeast Asian Fisheries Development Center (SEAFDEC) is an autonomous intergovernmental body established as a regional treaty organization in 1967 to promote fisheries development in Southeast Asia. SEAFDEC aims specifically to develop the fishery potentials in the region through training, research and information services to improve the food supply by rational utilization and development of the fisheries resources. Its services cover the broad areas of fishing gear technology, marine engineering, fishing ground surveys and stock assessment, post-harvest technology as well as development and improvement of aquaculture techniques. SEAFDEC is currently made up of 11 Member Countries, namely Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. The Council of Directors, composed of nominees from Member Countries, is a policy-making body to provide directives and guidance on activities of the Center. The Center has a Secretariat as its administrative arm, and four technical Departments.

## DPPSPM

The *Departemen Penyelidikan dan Pengurusan Sumber Perikanan Marin* (DPPSPM), which under the Fisheries Research Institute of the Department of Fisheries Malaysia, serves as the leading center in the fishery resources research at the national level. It shares the same building of SEAFDEC-MFRDMD in Kuala Terengganu, Malaysia. The Chief of SEAFDEC-MFRDMD is also the Director of DPPSPM. The research programs of the DPPSPM are funded by the Government of Malaysia.



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