



**Report of the Sub-regional Consultative Meeting
of the Southern Andaman Sea**

11-13 October 2011

Phuket, Thailand

Southeast Asian Fisheries Development Center

The Secretariat

**Supported by Swedish International Development Cooperation Agency
(Sida)**

PREPARATION AND DISTRIBUTION OF THIS DOCUMENT

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The Sub-regional Consultative Meeting of the Southern Andaman Sea which was held in Phuket, Thailand from 11-13 October 2011, organized by the Southeast Asian Fisheries Development Center (SEAFDEC) with support by the Swedish International Development Cooperation Agency (Sida).

We sincerely thank all resource persons for their valuable information share to participants. Special thanks to Dr. Rudolf Hermes for sharing information on the Bay of Bengal Large Marine Ecosystem (BOBLME) project. Also, we would like to extend our gratitude to all participants including from Prince of Songhla University, Department of Marine and Coastal Resources (DMCR) of Thailand and representatives from Indonesia and Malaysia for their contribution during the consultative meeting.

We wish to convey the appreciation to Dr. Ahmadi¹ who served as the Member of the Regional Fisheries Policy Network (RFPN) for Indonesia, based in SEAFDEC/Secretariat, Bangkok, Thailand for completing this report and his support and assistance during the conduct of the consultative meeting.

SEAFDEC-Sida project

¹ Dr. Ahmadi served as the Regional Fisheries Policy Network for Indonesia from January to December 2011.

Report of the Sub-regional Consultative Meeting of the Southern Andaman Sea Phuket, Thailand, 11-13 October 2011



I. INTRODUCTION

1. The Sub-regional Consultative Meeting of the Southern Andaman Sea was organized by the Southeast Asian Fisheries Development Center (SEAFDEC) with funding support by the Swedish International Development Cooperation Agency (Sida) at the Peach Blossom Resort, Phuket, Thailand from 11 to 13 October 2011.

2. The Consultative Meeting was attended by the officers from central and provincial governments and fishermen from Indonesia, Malaysia and Thailand as well as representatives from the collaborative partners such as the Bay of Bengal Large Marine Ecosystem (BOBLME) project and Prince of Songkhla University. The SEAFDEC Secretary-General, senior officers of SEAFDEC Secretariat, Training Department, and MFRDMD, and members of the Regional Fisheries Policy Network (RFPN) for Indonesia and Thailand also attended the Meeting. The list of participants appears in **Annex 1**.

3. The Secretary-General of SEAFDEC, *Dr. Chumnarn Pongsri* welcomed all honorable guests, resource persons and participants for joining the Meeting and reiterated the need to supplement regional management mechanism for the whole ASEAN with arrangements at sub-regional levels in order to better address area-specific issues such as habitats, fish species and trans-boundary potential conflict and opportunities. He also mentioned that the project could learn from the experience and avail of the expertise of the BOBLME project especially on the area of large *refugia* and other relevant aspects of fisheries and habitat management. This Meeting will bring together central and provincial government and local fishers of three countries to share experience on good practices and to seek cooperation inter agency and other relevant institutions in order to achieve the long term sustainability of fisheries and habitat in the Andaman Sea sub region. After expressing this, he declared the Meeting open. His opening remarks appear in **Annex 2**.

II. BACKGROUND AND ADOPTION OF THE AGENDA

4. *Ms. Pattaratjit Kaewnuratchadasorn*, SEAFDEC-Sida Project Manager briefed the background of SEAFDEC-Sida project and informed the objective of the Meeting. She further informed that the process of promoting sub-regional management arrangements keep straight on and linking to the earlier Meetings. Then, she briefly reviewed in the Andaman Sea context on key issues of regional concern such as habitat management, fishing capacity, IUU fishing, MCS, vessel registration, and port monitoring, among others. The prospectus appears in **Annex 3**.

5. *Mrs. Nopparat Nasuchon*, member of the Regional Fisheries Policy Network (RFPN) for Thailand, provided a short introduction of the ecosystems approach to fisheries (EAF). She emphasized the need for improvements in particular areas to apply an EAF related approach in place such as vessel registration, licensing of vessels, gear and people, port monitoring, catch certification/validation, catch documentation of trans-shipment,

designation of fishing areas and conservation areas, among others. Her presentation appears in **Annex 4**.

6. The Meeting adopted the Agenda as appears in **Annex 5**.

III. PRESENTATION AND DISCUSSION

7. *Dr. Ahmadi*, RFPN member for Indonesia, reviewed on the 2010-2011 three on-site events which convened in Medan (Indonesia), Langkawi (Malaysia) and Satun (Thailand) respectively. He highlighted the background, objective of the events and provided common issues among three countries raised during the on-site events such as the importance of habitat management, countermeasures IUU Fishing, MCS implementation and trans-boundary species management, among others (**Annex 6**). During discussion, the representative from BOBLME suggested to select the priority of activities among the said common issues.

8. *Dr. Matius Bangun*, The Head of Marine and Fisheries Agency of North Sumatra Province gave a presentation on management of fisheries resources in North Sumatra Province. He provided overview of fisheries management areas (WPP) in Indonesia particularly in WPP 571 and WPP 572. He briefly highlighted some problems in management of fisheries resources in North Sumatra such as overfishing, the use of *pukat ikan* (the modified trawl), mangrove destruction, and water pollution as well as illegal fishing, weak of law enforcement and unclear boundary. Particular actions taken for improvement of critical habitat through restocking program (*One man one thousand fries*), artificial reef (*fish apartment, rumpon*), mangrove conservation and coral reef habilitation. Furthermore, he also explained on vessel registration, fishing license, port monitoring, and law enforcement in Indonesia and around North Sumatera. His presentation is shown in **Annex 7**.

9. During the discussion, inquiry on the mechanism for renewing fishing license in Indonesia including the authority to issue the license was asked. The Meeting took note that in Indonesia there are 2 types of fishing licenses namely fishing license (renew every year) and fishing business license (30 years). Both licenses are issued by Ministry of Marine Affairs and Fisheries. Fishing vessel less than 5 GT no need to apply for license, it just registered at district. In addition, since Indonesia still using the old vehicle tires structure as *rumpon*, the Meeting suggested Indonesia reconsiders the use of tire material that may cause impact to the environment and it should be clear of purpose for conservation.

10. Ms. *Tan Geik Hong*, representative from Malaysia provided on overview of fisheries management in Malaysia (**Annex 8**). This includes management of habitat (e.g. marine park, protected area for sea cucumber, replanting of mangrove, and artificial reef), management of fisheries resources (e.g. legal framework, vessel registration, fishing license, fishing zone, and conservation), current status of trans-boundary species, and management of fishing capacity and IUU fishing. In addition, she also informed on the current policy in fisheries management such as giving incentive for landing the catch by inshore fisherman resulting in number of vessel increased, trawl “exit-plan” program, and “one stop center” for vessel registration and licensing.

11. The Meeting took note that the vessel marking program is needed for checking the origin of vessel and special design of plate and nail was made to detect vessel cloning; once taken out of the vessel, the plate is destroyed so it cannot be reused for other vessel. Observation on increase in number of vessels and fishers in many countries during the past years—whether it is really increase in number or due to improvement in registration (vessel that already exist registered and recorded in the system). In order to manage the protection area, the function of each agency goes through the existing procedure under collaborative work and should get approval from the State Government before accessing the area. According to regulation, fishing is not allowed in Marine Park but it is allowed in other types of MPA with permission from DOF.

12. *Mr. Wudtichai Wungkhahart*, Director of the Andaman Sea Fisheries Research and Development Center, provided information on the status of the Indo-Pacific Mackerel (*Rastrelliger brachysoma*) in the Andaman Sea Coast of Thailand based on the three groups of stock distribution and its biological characteristics. It is the main target for all fishing vessel sizes. He also introduced some good practices for Mackerel resource management through the establishment of zoning and timing of restriction, fishing capacity management and MCS. The closed area measure prohibits trawl and purse seiner during 1 March to 30 June annually. His presentation appears in **Annex 9**.

13. During the discussion, the Meeting also took note that DOF Thailand is now conducting the Master Plan of Marine Fisheries Management (2009-2018). Considering that the trans-boundary movement of Indo-pacific mackerel that might migrate to Sumatra waters of Indonesia, the fisheries managers should be considered for the management measures. In addition, the Meeting noted that the same methodology or minimum requirement of common procedure for stock assessment around the Andaman Sea should be considered as well. The representative from the Prince of Songkhla University, informed the Meeting that they also conduct the study on molecular genetics offered by the Prince of Songkhla University can be shared and provided input in the preparation of better mackerel resource management. In this connection, BOBLME is also willing to support for the research. Recently BOBLME received the proposal only from Thailand to study about DNA of *Rastrelliger* sp. and is looking forward to similar proposal of study by Indonesia and Malaysia.

14. *Dr. Rudolf Hermes*, Chief Technical Advisor of Bay of Bengal Large Marine Ecosystem, presented BOBLME project on Critical Habitat Management Marine Ecoregion Andaman Sea/Malacca Straits. The BOBLME project is addressing issues on the over exploitation of fish stocks, habitat degradation and land based sources of pollution which have led to uncertainty whether the ecosystem will be able to support livelihoods in the future. The five components relevant with the SEAFDEC-Sida project are identified. They are development of an action plan, resources management, understanding the environment, ecosystem health and communication related to the common issues including shared fishery resources and management of trans-boundary fish stocks, habitat management, fish *Refugia* of MPAs, ecosystem health indicators, pollution prevention, oceanography and better understanding of small-scale fisheries issues. His presentation appears in **Annex 10**.

15. The Meeting noted that the Bay of Bengal is experiencing over exploitation of fish because of expanding fishing ground from neighbouring countries resulting in problems in recording fish landing data. The Meeting took note that the BOBLME project also

emphasized on the Trans-boundary Diagnostic Analysis (TDA), which use as an analytical tool - scientific document to quantify and prioritize issues and build up the action on identified issues based on scientific information; however, it cannot be used to reduce the conflict. The results of the TDA consultation will be submitted to the next BOBLME Steering Committee based on recommendation of the report on consultation process made by the consultant in each Member Country that will be used for the collaborative development of Regional Strategic Action Plan. There a lot of opportunity to address issues with critical trans-boundary habitat management, BOBLME is flexible depending on the MCs' requests.

16. *Mr. Abu Talib Ahmad*, Special Department Coordinator of SEAFDEC/MFRDMD presented the tagging program for economically important pelagic fish species in the South China Sea and the Andaman Sea (**Annex 11**). The target species focused on the Indian mackerel (*Rastrelliger kanagurta*) and short mackerel (*R. brachysoma*) which considered research results on migration of the target species in the Andaman Sea. The main activities during 2008-2010 included the conduct of the core expert Meeting, tagging activities at sea, receiving recovery tagged fish, pay rewards, conduct necessary data collection and also database arrangement as well as on-site training and produced the poster in the 8 national languages to promote the tagging program. He also informed that MFRDMD organized the Core Expert Meeting related on the Tagging Program in September 2011. In 2011-2012, the project will focus more on genetic survey for sub-population because the previous study showed that tagging technique did not suitable for small fish. The project started studying genetic and the result will be compared with Thailand's study as Thailand identified mackerel into 3 groups.

17. In addition, the Meeting took note that the data collection on local knowledge by interviewing fisherman with the questionnaire should be careful to avoid the confusion and tried to extract the pure local knowledge by showing them the picture book. This said questionnaire was just prepared as a guideline for Member Country to get best result. The Meeting also noted that BOBLME will continue to support the study on the trans-boundary areas of the Indian mackerel (*R. kanagurta*) in the BOBLME Member Countries Areas and could consider the short mackerel (*R. brachysoma*) in the Andaman Sea.

18. For the program implementing by SEAFDEC/TD, *Mr. Kongpathai Saraphaivanich*, briefly introduced the background and objective of the project "*Promotion of Fishing Licensing, Boats Registration and Port State Measures*" (**Annex 12**). In this regard, He informed that TD in collaboration with MFRDMD organized the Regional Core Expert Meeting on Fishing License, Boats Registration and Information on Export of Fisheries Product in Southeast Asia in October 2011, a set of recommendations for development of regional guidelines to combating IUU Fishing were given by experts.

19. In addition, *Ms. Panitnard Taladon*, staff from SEAFDEC/TD, highlighted the project on "*the Human Resources Development and awareness building program for sustainable fisheries and combating IUU fishing in Southeast Asia*", which aimed to build and strengthen knowledge of Member Countries on fisheries management to combat IUU fishing as well as to build capacity and knowledge on appropriate tools and methodologies for gathering fishery information and statistics. Her presentation as shown in **Annex 13**.

20. In this regard, the Meeting requested to attach the results of discussion and recommendation from the Regional Workshop on HRD Programs for Sustainable Fisheries and Related Counter-measures to Combat IUU Fishing in Southeast Asia on 6-8 July 2011 and the Core Experts Meeting on Fishing License, Boats Registration and Information on Export of Fisheries Products in Southeast Asia on 4-7 October 2011 in report of the Meeting for the reference documents. The reports of the said Meeting appear in **Annex 14** and **Annex 15** respectively.

21. In addition, BOBLME is also developing training course on Ecosystem Approach to Fisheries (EAF) and will further look into the EAF course to be provided by TD (for fisheries extension officers not only EAF but also for extension method for knowledge transfer later on). Many initiatives or training on EAF by various organizations, e.g. SEAFDEC, BOBLME, CTI, should keep an eye on the direction of other organization to be similar direction/methodology. Resource persons from university are targeted to be backbone of expertise for the training.

IV. GROUP DISCUSSION

22. During the Meeting, participants were divided into three group discussion and time was allocated for three themes as follows:

- Group 1: Fisheries and habitat management/*refugia* and trans-boundary stocks and habitats
- Group 2: Strengthening Monitoring Control and Surveillance (MCS) Network/ Port Monitoring and Monitoring of Landings by “neighbouring” vessels
- Group 3: Strengthening Cooperation of the Vessel Registration System, Vessel record and inventory

The summary of discussion including identification of issues and required actions made by each group is shown in **Annex 16, 17** and **18** respectively.

V. PLENARY DISCUSSION

23. The Meeting specifically discussed on distribution and biological characteristic of mackerel around Andaman Sea. Representative from Malaysia reiterated the importance of information on spawning season and areas of mackerel that is still not much available for Malaysia and Indonesia. With this in mind, DNA study approach is needed to help to understand the connectivity among mackerel populations, and rendering information on how stocks should be managed to benefit sustainability.

24. Malaysia and Indonesia are encouraged to submit the proposal to BOBLME following the similar DNA study methodologies of Thailand so that the result would be comparable at the end. To avoid repetition and duplication work, Thailand suggested Indonesia to collect sample and submit to SEAFDEC/MFRDMD for the DNA analysis of the sample, the cost for analysis could be added in the proposal.

25. The Meeting was also informed that weaknesses in genetic analysis is to find the best methodology to use and the equipment for DNA testing is also expensive better to think of minimum requirements to see the genetic structure, and more advanced techniques is also needed (e.g. mitochondrial DNA is better than microsatellite). However, it is not

only genetics analysis but also other methodology could be used to confirm e.g. morphometric technique conducted in Peninsular Malaysia.

26. Furthermore, the Meeting was informed that the migration route of mackerel is the same as the BOBP (Bay of Bengal Programme) study of 1987; however, spawning season may have changed. There is an indication that Mackerel in Thailand mature early and smaller spawners due to heavy exploitation. It was suggested that pre-assessment for improvement of the mackerel stocks and habitat management in Andaman Sea should be done in the near future. Priority and specific study area of the *Rastrelliger spp* should be conducted in small group of core expert as well as review the pre-assessment report of BOBLME that already identified recommendations for countries partner in management of mackerel. BOBLME is establishing the Fishery Assessment Group from 7 countries for *Rastrelliger* stock assessment as well as the ecosystem health, with planned capacity building to support the undertaking of required activities. The pre-assessment could also be conducted in the Gulf of Thailand, to some extent if resources available. With this in mind, our task to convince governments that stock assessment and data collection are genuine country's responsibility and not by donors, true functions of the countries and funded by government's budget.

27. The Meeting also pointed out the importance of data exchange in fisheries (e.g. fishing vessels) in the region. This comes back to the reality that each country has different format items or terminology of vessel sizes. Effort should be started with harmonizing the format of data collected by different countries before thinking about sharing of information. Even though changing data collection system in country is difficult, the easy way is to use a formula/standard or make conversion factor in order that countries can convert the data into similar unit. This should be calibrated to make it comparable among countries, for example:

- Changing of GRT to GT can be done
- Changing from HP to GT is difficult as this is due to purpose of the vessel and sometimes fishers change engine
- Changing from Meter to GT – this can be done by finding factors (type and shape of boats) and come up with formula to convert for different types of vessels

28. For monitoring/management purpose, however, it may not be a need for that precise/detailed information to be compiled and shared. Minimum information and how to make cluster of vessels may be required and agreed among countries. Again, it is not intended to change the national law and regulation just to provide information in hand. TD was requested to continue work on this e.g. conduct a small survey collecting categories of boat and come up with correction factors. Some Member Countries had already conducted research on this, and the available information could be used as a basis for harmonization. This could coordinate with statistical focal points for the conversion. In principle, member country is willing to convert all data of size of vessels to be in line with international standards.

29. Regarding MCS implementation, the movement of vessel at trans-boundary area should also be monitored including monitoring of the catch landing in foreign fishing ports, transshipment catch at sea, and also how to share information between countries to avoid double records or misreported. Other initiative was provided by BOBLME guiding the 8 countries to harmonize policies, fishery regulations, and also administrative orders at the lower level of policy making.

30. The Meeting took note of the development set of incentives applicable in the area (e.g. build houses for fishers, fuel support as well as enhancing capacity and awareness building) and not necessarily in terms of financial incentives. Other good example is incentive to register vessels shown by the fishers group in La-Ngu district, Satun Province of Thailand where registration of vessels at the district makes the fishers well-recognized and can have more access to government support services.

31. The Meeting also took note that there is a willingness to install data buoy instrument and establish Andaman Sea Data Buoy System to provide accuracy of oceanographic data. For Thailand, currently there are buoys only in the Indian Ocean (by DOF and DMCR), but none in the territorial waters of countries (e.g. South China Sea and Andaman Sea) due to security reasons. It was encouraged that countries should look around and find data that are available from other countries (e.g. NOAA and JAMSTEC) and buoys to be release in Andaman Sea by MV SEAFDEC next year).

VI. RECOMMENDATION

32. The Meeting expressed on the importance to promotion cooperation and to develop and agree among the three countries on measures for improvement fisheries and habitat management including improved management of fishing capacity and to combat illegal and destructive fishing. The three countries and institutions related to fisheries and habitat management in the Andaman Sea should further strengthen their capacity and cooperate for improvement the integration of fisheries and habitat management to the benefit of people living in coastal areas.

Management Approaches to fisheries and habitat management

- a. The Meeting supported the concept of establishing larger fisheries resources conservation areas (*refugia*) and development joint management plan that should not only focus only on particular managed areas or habitats (e.g. MPAs or mangrove forest), but also address land based activities that may create impact to the ecosystems such as pollution, sand mining, etc. and how to monitor the ecosystem health in proper way (including perspectives of diversified household incomes to reduce pressure on resources). Follow up with each of the countries on the priorities to establish time-lines and commitment.
- b. Establish an integrated mackerel management plan of *Rastrelliger spp.* (specifically Indo-Pacific mackerel (pla too) and Indian mackerel (pla lang), and related species) at sub-regional level (e.g. involving Thailand, Malaysia and Indonesia) and collect information to indicate how the utilization of fish stocks should be managed to benefit sustainability. The current scientific data and information on mackerel that is already available should be mobilized, and updated, to serve as a basis for the establishment of the management plan. Follow up with each of the countries on the priorities to establish an action plan (with time lines) to develop joint approaches to regulate fishing activities such as limit number of vessels, closed seasons, protected areas, larger fisheries resources conservation areas, etc.
- c. Suitable areas should be agreed upon for the promotions of conservation/rehabilitation and management of important and protective habitats, including areas suggested for mangrove rehabilitation. In the process improve the capacity of communities and local organizations to more responsibly use and manage resources and habitats,

including perspectives of diversified household incomes to reduce pressure on resources. Follow up with each of the countries.

- d. Awareness building should be undertaken on how to maintain the stock assessment activities in a long-term basis under the government responsibility (without being dependent on any donor). Activities on monitoring of stock status should be planned by the three countries together in order that activities of individual countries could be collated and provide better picture on broader perspective.
- e. Data collection should be improved, including DNA studies, to obtain better understanding on the connectivity among mackerel populations (*Rastrelliger spp.*) and related species throughout their life cycle, including spawning areas, spawning seasons, important feeding areas and movement of fish in trans-boundary areas. Information should include identified fishing grounds and location of existing MPAs and other managed areas (closed seas). The data should provide input to the development of the “integrated mackerel management plan”.

Information, information sharing, research and studies

- f. There is an expressed need to improve oceanographic data collection by developing links to institutions and organizations (IOC) responsible for oceanographic and hydrographic information. Other efforts could include the installing of data buoy instruments in Andaman Sea and/or explore the availability of data from other countries (e.g. NOAA and JAMSTEC with buoys to be released in Andaman Sea by MV SEAFDEC-2 next year).
- g. To provide a framework for the development of cooperation on Monitoring, Control and Surveillance and the build up of MCS network including designation of key areas for cooperation/agreements (information sharing, monitoring of (illegal) fishing activities, port monitoring, vessel records, including vessel registration and fishing licenses). Establish an MCS team among the three countries (refer to the MCS “matrix” for relevant institutions). Follow up with each of the countries on the priorities to establish an action plan (with time lines) to develop joint approaches to the build up of MCS network and strengthen national and sub-regional cooperation in the process.
- h. With partners, support the improvement of databases on vessel registration and licensing systems as a tool to manage and control fishing capacity as well as to combat IUU fishing. There is a need to address the fabrication (copying) of licenses or double registration of fishing vessels. Furthermore, develop “correction factors” to facilitate the assessment of numbers of vessels and “active” fishing capacity.
- i. Promote data exchange on vessel registration and licenses to fish, including numbers and movement of vessels, transshipment of catches at sea and cross-border landings. Institutional collaboration between agency at national and sub-regional level should be strengthened. In addition, formal mechanism for agreements (MOU, or other) on key issues among the three countries should be developed, e.g. Indonesian vessel fish in Indonesia waters but landing the catch in Thailand, it should report the data back to Indonesia

Raise Awareness, Capacity Building

- j. There is strong need to build up capacity and quality of the functions and management of fishing ports and landing sites based on international requirements. Furthermore, build capacity for improved port monitoring including measures to verify catch documentations and to improve monitoring of catches landed in sub-regional landing sites, including catches from neighbouring countries. SEAFDEC should follow with each of the countries on the perspective of areas of central importance to promote agreement and understanding on local practices in landings across boundaries.
- k. Involvement of local organizations (e.g. local governments, NGOs, fisher associations) in the whole process of fishery management should be enhanced. Information dissemination, communication and awareness raising activities should be in line with EAF approach). Thus, HRD course on EAF e.g. training of trainers (TOT) and further extended to local levels is needed including participation from all three countries in capacity building events.
- l. Consider and provide awareness on implications of the ASEAN community building by 2015. The challenge to build the ASEAN Community implies unified efforts in all aspects. Institutional collaboration and sharing of information strengthening of institutional collaboration and sharing of information should be strengthened among the agencies and other partners at provincial, national and sub-regional levels.
- m. Awareness provided on how climate change might add to the concerns raised during the meeting, including need to build adaptive capacity, to prepare mitigation measures, to improve community organization and to restore important habitats (mangroves, etc).

Sub-regional arrangement

- n. Continue dialogue legal and institutional aspects to allow for harmonized policy development in promoting sub-regional agreements, taking into consideration the framework and limits of national laws. Countries cannot be expected to agree on something that goes beyond the provision provided by the national legal structure.
- o. Establish a core experts group to among the three countries to identify what can be done in the most effective way, considering what institutions are doing to avoid duplication of efforts, to optimize use of resources and to facilitate the development of sub-regional agreements.
- p. Systems for the supervision, monitoring and the control of encroachment of larger vessels into coastal waters should be developed. Potential conflicts among fishermen should be assessed. Practical means to identify encroaching vessels should be developed and agreed upon including routines to report to near port authority, local government and, if applicable, to neighboring country. There is a consensus on the need to reduce the encroachment of larger vessels (also foreign) into coastal waters, including the development of plans to manage fishing capacity, combat illegal and destructive fishing, improve vessel registration/records, strengthen flag state responsibilities, initiate MCS activities, etc; Follow up with each of the countries on the priorities to establish an action plan (with time lines) to develop joint approaches to monitoring and control encroachment, illegal and destructive fishing.

VII. CLOSING OF THE MEETING

33. *Dr. Chumnarn Pongsri*, Secretary-General of SEAFDEC thanked the participants for their active participation in the Consultative meeting. He reiterated the outputs of the Meeting will pave the way for concerned institutions to fine-tune activities in term of food security and sustainability in the region. Consider the ASEAN community building by 2015 which means a unified effort for all aspects. After all then he declared the Meeting closed.

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OPENING REMARKS

by Dr. Chumnarn Pongsri, SEAFDEC Secretary-General

Distinguished participants from Indonesia, Malaysia and Thailand
Honorable guest from the Bay of Bengal Large Marine Ecosystem project, Dr. Rudolf Hermes, representatives from academia, Prince of Songkhla University
Colleagues from SEAFDEC; Ladies and Gentlemen, Good morning!

It is indeed my great pleasure to welcome all of you to Phuket and to the Sub-regional Consultative Meeting of the Southern Andaman Sea.

May I recall that the effort was initiated in 2009 when SEAFDEC in cooperation with the BOBLME organized the First Meeting of the Andaman Sea Sub-region also here in Phuket. The aim was to start a process of dialogue to promote sub-regional arrangements for the Andaman Sea Region. The meeting addressed key concerns on fisheries and habitat management, fishing capacity, IUU fisheries, vessel registration, port monitoring among others matters within the broader frame of building upon opportunities to implement an “ecosystem approach to fisheries”, or EAF. The meeting emphasised need to address these concerns when aiming towards sustainable management actions for the Andaman Sea Sub-region.

In 2010 and 2011, SEAFDEC followed up on the expressed need for improved implementation at local level. Therefore a series of on-site trainings and information sharing events were convened in Medan, Indonesia, Langkawi, Malaysia and Satun, Thailand. The events aimed to provide information and raise awareness on key areas for improved and effective fisheries management including habitat management, the management of fishing capacity; Monitoring Control and Surveillance (MCS) networks; and systems for registration of vessels and to provide licenses to fish also at the local level as important tools in the process to strengthen efforts to integrate fisheries and habitat management.

To better improve of fisheries and habitat management and to deal with illegal and destructive fishing on limited resources and in restricted areas, there is a crucial need for cooperation among agencies at national and sub-regional level in order to monitor fisheries activities, restore and maintain important habitats, enforce rules and regulations for the long-term sustainability of habitats and the utilization of fisheries resources. This time, the Meeting brings together participants who are responsible, or otherwise involved, in different areas related to fisheries and habitat management from Indonesia, Malaysia and Thailand. We hope that the meeting will provide a venue that will facilitate dialogue in follow up to earlier events and to provide room for a meaningful discussion on issues of importance for the Southern Andaman Sea. Participants are encouraged to try to explore possible solutions and directions leading to common approaches and agreements between the three countries.

In this respect, I wish to encourage all of you to actively express your views and exchange experiences during the discussion that would be able to achieve the envisaged outcomes to enable us to cooperate on further steps for the better management of fisheries and habitats, to manage fishing capacity and in combating illegal and destructive fishing,

or IUU fishing, to the benefit and improved well-being of the people in this part of the Andaman Sea.

Before we move further into work ahead of us I would like to thank all of you again for sparing you valuable to be here. I do hope that you will enjoy the next two days. Now I hereby declare the Sub-regional Consultative Meeting of the Southern Andaman Sea Meeting open.

Thank you, and once again, a very warm welcome to everyone.

PROSPECTUS

Background

Over the last couple of years, SEAFDEC together with ASEAN-SEAFDEC Member Countries with support from the Swedish International Development Cooperation Agency (Sida) have organized regional and sub-regional meetings and on-site trainings at provincial level addressing key aspects of fisheries and habitat management including the need for sub-regional and/or bi-/tri-lateral agreements. SEAFDEC started a process to promote sub-regional cooperation with the organization of the First Gulf of Thailand Meeting (March 2008). The initiative was based on recommendations from ASEAN-SEAFDEC Member Countries and the agenda was developed in follow up to the cooperation with the UNEP/GEF/South China Sea Project as well as with the Regional Plan of Action (RPOA) to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region. With the support through SEAFDEC-Sida cooperation, the process moved in 2009 ahead to the Andaman Sea area and during the First Andaman Sea Meeting (October 2009) participants were addressing key important aspects including integration of fisheries and habitat management, fishing capacity, local knowledge and climate change and to provide a basis for an ecosystems approach to fisheries.

In October 2009, SEAFDEC in cooperation with the BOBLME organized the First Meeting of the Andaman Sea Sub-region in Phuket, Thailand. The approach of the meeting was to build upon the experiences from the process of promoting sub-regional management arrangements, similar to the Gulf of Thailand sub-regional meetings in 2008 and 2009. Aspects has been emphasised that need to be addressed when aiming towards suitable management actions for the Andaman Sea Sub-region. Specifically, it is suggested to explore options to lay the foundation for the introduction of larger fisheries resources conservation areas (*refugia*) around the Andaman Sea as well as promoting collaboration among agencies and organizations working on fisheries, environment and marine and coastal resources management in the Andaman Sea. In the process a focus should be given to key issues of regional concern such as fisheries/habitat management, fishing capacity, IUU fisheries, vessel registration, among others, thus building upon opportunities to implement an “ecosystem approach to fisheries” (EAF). In order to move forward to initiate a process to promote the build-up of a management mechanism for the sub-region SEAFDEC would like to seek cooperation and collaboration with participating countries in strengthening fisheries and habitat management at all levels.

During the process initiated by SEAFDEC in the Gulf of Thailand and Andaman Sea (in cooperation with the BOBLME) a number of actions/activities were indicated as a basis to designate areas for special management measures, such as:

- a. Setup and agree on criteria for the definition of boundaries for selected areas
- b. Review existing management systems and map the established areas or managed zones
- c. Cooperate and link up with projects and organizations to generate and provide information on the spawning areas, nursery grounds and other important habitats
- d. To promote and build awareness at various *fora* on the need to integrate fisheries management into habitat management (and the institutional implications thereof) in line with an ecosystems approach to fisheries (EAF).

Reviews of fisheries management systems and mapping of existing defined management areas or zones need to be on-going activity. A general finding shows that in some countries defined “management” areas might be shared or designated by more than one agency for different purposes such as wildlife sanctuary, natural heritage, environmental protection, marine park areas (MPA), etc. The boundaries and rules that are not clearly explained by the responsible agencies may confuse the fishermen which are operating in and around the designated areas. The responsible agencies must also alert the fisheries communities with regard the any observed impact of species migration with migration patterns to other areas, including new movements across boundaries (due to increased sea surface temperature or other changes in oceanographic features). As a result some fishing areas might experience increases while other areas might face decreases in availability of fisheries resources.

National and Provincial authorities and agencies responsible natural resources utilization, environment, fisheries, etc need to cooperate to prepare for the possible effects of climate change through human resources development, capacity building to diversify household income, develop improved safety at sea measures, ensure policy change where needed, etc. including needed budget allocations as and when needed. At the same time fisher-folk and coastal communities, on their side, should be responsive and actively strengthen the community organization and local initiatives to broaden income generating opportunities as steps to build capacity to adapt to climate changes, and other changes.

Countries like Malaysia, Indonesia and Thailand share some of the same fish resources in the southeast Andaman Sea/Malacca Strait, such as *Rastrelliger spp* and related species which are moving across boundaries of the three countries. The similarities of habitats and ecosystems also cut across boundaries. To ensure the sustainability and the benefits to people in coastal provinces there is a need for the three countries to compare their sets of rules and restrictions (closed seasons, etc) to find a path the agree on common approaches and agree on rules applicable to the whole sub-sub-sub-region. There is a continuous need to monitor the migration pattern of particular species and oceanographic changes in order to identify any changes in location of breeding grounds, nursery areas, spawning season and etc. in the sub-sub-region. In monitoring the life-cycle patterns it is important to be observant on any changes in the migration paths and spawning patterns that might change due to impacts of climate change. To be able to manage fishing capacity the countries should initiate and strengthen vessels registration for commercial and small scale vessels, followed by improved licensing systems, in order to manage and control fishing capacity to maintain a balance of fisheries resources availability with the active fishing capacity – and to combat illegal and destructive fishing.

The encroachment of commercial vessels in coastal waters affects the availability of resources and, subsequently, directly influences the income and resources available to the traditional fishermen. The commercial fishing in coastal waters is, in all countries illegal (either illegal, unreported or unregulated, and considered as IUU fishing). To deal with illegal fishing on limited resources and in restricted areas there is a crucial need for cooperation among agencies at national and regional level in order to monitor fisheries activities, enforce rules and regulations, and to combat IUU fishing.

In support to efforts to monitor and control fishing activities improvements are needed in a whole range of fields. Within the application of an EAF related approach improvements are needed in areas such as vessel registration, licensing of vessels, gear and people (ban

destructive gears), port monitoring, catch certification/validation, documentation of transshipment of catches, control of trade in endangered species, designation of fishing areas and conservation areas, etc. In responding to the action required to combat illegal and destructive fishing the countries in the sub-sub-region need to observe both the requirements of being a flag state and the requirements of being a port state. Collaboration among the agencies can be seen as one of the main mechanisms to fill in the hole in managing fisheries activities by providing means to share information, to facilitate discussion on common issues, to review laws and regulations (national and international) and, in general, to solve problems that are common to two or more countries - or a whole sub-region.

SEAFDEC convened during 2010 and 2011 a sequence of On-site events in Medan, Indonesia, Langkawi, Malaysia and Satun province, Thailand with the aim to provide information and to raise awareness at provincial levels on the importance of coastal habitats like mangrove, coral reef and sea grass and the need to integrate the fisheries management with habitat management and to provide the basis for the application of an EAF.

During the events, issues of concern that need to be addressed were highlighted. The issues raised during the events include matters such as the management of fishing capacity, encroachment of larger fishing vessels and the need to combat IUU fishing, the conservation and utilization of migratory fish species, the improvement of vessel registration and the process to issue fishing licenses, the adaptation to climate change, the build-up of Monitoring, Controlling and Surveillance (MCS) networks, port monitoring, trade/catch documentation as well as the importance to facilitate information sharing, etc. The participants in all events emphasized the importance to promote collaboration among agencies and organizations working on fisheries, environment, livelihoods and the management of marine and coastal resources utilization and protection.

Rationale and objectives of the Meeting

The intention with this sub-sub-regional event is to follow up on the three on-site events held during 2010 and 2011 in Indonesia, Malaysia and Thailand, respectively, as well as with reference to the First Andaman Sea Meeting held in October 2009 in cooperation with the BOBLME. The Meeting, or the Consultation, aims to provide a venue to update information delivered during earlier meetings and to provide an option to synthesize and agree on priority issues common to all three countries (with respect to these parts of the countries).

Furthermore, the aim is to seek guidance from the three countries on priority action-oriented recommendations for the development of joint approaches and agreements to address problems/issues common to all three countries in this triangular area of the southeast part of the Andaman Sea. This could involve key elements of both national and regional concern that have been raised as priority areas during national and regional events, such as:

- The encroachment of larger vessels (also foreign) into coastal waters (indicating a need to manage fishing capacity, combat illegal and destructive fishing, improve vessel registration/records, initiate MCS activities, etc);
- Landings of catches in neighbouring countries (need for improved port monitoring and catch documentation); and
- To build up MCS network by, initially, share information.

- Furthermore, look for possible cooperation and agreements on bi-/trilateral approaches to identified areas of importance to fisheries and habitat management. This includes the follow-up on options for joint approaches to fisheries and conservation of *Rastrelliger spp* (Indo-Pacific mackerel (Pla too) and Indian mackerel (pla lang), and related species.
- To provide awareness on climate change and how that might add to the concerns raised during the meeting, including need to improve community organization and the restoration of important habitats (mangroves, etc)

Objectives:

With an ambition to support the development of sub-sub-regional agreements/arrangements based on an ecosystems approach to fisheries through the integration of fisheries and habitat management, including the streamlining of responses to climate change, the meeting should look for action-oriented recommendations for the development of joint approaches and agreements to address problems/issues common to all three countries in this triangular area of the southeast part of the Andaman Sea. The specific objectives of the meeting are:

- To provide a framework for the development of cooperation on Monitoring, Control and Surveillance and the build up of MCS network including designation of key areas for cooperation/agreements (information sharing, monitoring of (illegal) fishing activities, port monitoring, vessel records, including vessel registration and fishing licenses)
- Establish an action plan (with time lines) to develop joint approaches to regulate fishing activities on key trans-boundary migratory species, such as *Rastrelliger spp* and related species (limit number of vessels, closed seasons, protected areas, larger fisheries resources conservation areas, etc)
- Develop a plan for the conservation/rehabilitation and management of important and protective habitats, including efforts to strengthen the capacity of communities and local organizations to more responsibly use and manage resources and habitats (including perspectives of diversified household incomes to reduce pressure on resources)

The Meeting should indicate suitable actions, and time-lines, as possible, for continued work and cooperation at the sub-sub-regional level. Recommendations from on-site events conducted in Indonesia, Malaysia and Thailand will be reviewed as a basis to indicate areas and steps to take to facilitate sub-sub-regional cooperation and to support and build upon good/promising local organisations and initiatives.

Expected Outcomes

The Meeting aims, as stated above, to provide an option to synthesize and agree on priority issues common to all three countries (with respect to these parts of the countries). As a background for discussions and recommendation updates on fisheries and habitat related activities will be provided – building upon on the information delivered during earlier on-site events and the first Andaman Sea Meeting. Recommendations and action points will be provided for SEAFDEC, BOBLME and other relevant bodies on directions to take in planning for future activities, including cooperation on managing fishing capacity, fisheries and the protection and restoration of habitats in this sub-sub-region.

The main outcomes would include:

- a. Recommendations, based on an understanding of the benefits of integrating fisheries and habitat management, support to an EAF and the importance to respond to effects of climate change, provided on suitable actions, and time-lines, as/if possible, for continued work, cooperation and potential areas for agreements at the sub-sub-regional level based on reviews of the recommendations from on-site events conducted in Indonesia, Malaysia and Thailand.
- b. Action points provided on the strengthening of institutional collaboration and sharing of information among the agencies and other partners at provincial, national and sub-regional levels.
- c. Consensus on the need to reduce the encroachment of larger vessels (also foreign) into coastal waters, including the development of plans to manage fishing capacity, combat illegal and destructive fishing, improve vessel registration/records, strengthen flag state responsibilities, initiate MCS activities, etc.
- d. Steps identified to address the need to build capacity for improved port monitoring including measures to verify catch documentations (and to improve monitoring of catches landed in sub-sub-regional landing sites, including catches from neighbouring countries).
- e. Action points developed on the build-up of a MCS network in the sub-sub-region by, initially, sharing information with steps identified to establish an MCS team among the three countries (refer to the MCS “matrix” for relevant institutions)
- f. Action plans for areas, identified during on-site events, of importance to fisheries and habitat management, such as
 - Suitable areas for the promotions of the conservation/rehabilitation and management of important and protective habitats (including areas suggested for mangrove rehabilitation).
 - Strengthen the capacity of communities and local organizations to more responsibly use and manage resources and habitats (including perspectives of diversified household incomes to reduce pressure on the resources) – this linked to suggested rehabilitation areas.
- g. Identified steps and actions to follow-up on options for joint sub-sub-regional approaches to regulation of the fisheries on, and for the conservation of *Rastrelliger spp.* (specifically Indo-Pacific mackerel (pla too) and Indian mackerel (pla lang), and related species).
- h. Gaps identified indicating areas for continued review and the need to strengthen the institutional procedures, local policies, implications to the sub-sub-region of national and international laws with regards to the fisheries and habitat management including the management of fishing capacity and the improved human well-being in the sub-sub-region.
- i. Awareness provided on how climate change might add to the concerns raised during the meeting, including need to build adaptive capacity, to prepare mitigation measures, to improve community organization and to restore important habitats (mangroves, etc).

STUDY TRIP

The Meeting will arrange a half day visit the Phuket Fishing Port.

An Ecosystem Approach to Fisheries-ways for Sustainable of fisheries resources

Mrs. Nopparat Nasuchon

The Regional Fisheries Policy Network Member for Thailand

An Ecosystem Approach to Fisheries-ways for Sustainable of fisheries resources



Sub-Regional Consultative Meeting of the Southern Andaman Sea
11-13 October 2011, Phuket, Thailand

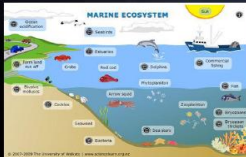
Selected International Instruments for EAF

- ❖ 1971 Ramsar Convention
- ❖ 1972 World Conference on Human Environment
- ❖ 1982 United Nations Law of the Sea Convention
- ❖ 1992 United Nations Conference on Environment and Development and its Agenda 21
- ❖ 1992 Convention on Biological Diversity
- ❖ 1995 United Nations Fish Stocks Agreement
- ❖ 1995 FAO Code of Conduct for Responsible Fisheries

Ecosystem Approach to Fisheries (EAF)

Definition, FAO 2003

“An ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries.”



Integrated management of fisheries to promote sustainable development

EAF management should respect the following key Principles

- ❖ Fisheries should be managed to limit their impact on the ecosystem to the extent possible;
- ❖ Ecological relationship between harvested, dependent and associated species should be maintained;
- ❖ Management measures should be compatible across the entire distribution of the resource (across jurisdictions and management plans);
- ❖ The precautionary approach should be applied because the knowledge on ecosystems is incomplete; and
- ❖ Governance should ensure both human and ecosystem well-being are equity.

Ecosystem Approach to Fisheries management

To minimize habitat damage, changes in food chains in natural ecosystem, and loss environment, and develop and establish inter-agency collaboration (fisheries, environment, tourism) as well as within fisheries agency cooperation to promote the concept of ecosystem approach to fisheries. It also necessary to recognize the value of “local common” to work towards improving habitat and fish production where “front of the sea in one’s own garden under the one’s responsibility, and fish is one’s own property to be conserved for next generation”

Conclusion

Sustainable of Fisheries Development

Ecosystem Approach to Fisheries context

Participation of all stakeholders, relevant agencies

Human

Social well-being

Ecological well-being

Towards suitable management actions for the Andaman Sea Sub-region

- Strengthening cooperation and collaboration with participating countries in strengthening fisheries and habitat management at all levels.
- Build awareness at various *fora* on the need to integrate fisheries management into habitat management.
- Support efforts to monitor and control fishing activities improvements
- In apply an EAF related approach, improvements are needed in areas: vessel registration, licensing of vessels, gear and people, port monitoring, catch certification/validation, documentation of trans-shipment of catches, designation of fishing areas and conservation areas, etc.

Thank you

AGENDA

11 October 2011 (Tuesday)

- | | |
|-------------|--|
| 08.30-09.00 | Registration |
| 09.00-09.15 | Agenda 1: Opening of the Meeting |
| 09.15-09.45 | Agenda 2:
2.1 Background of the Meeting, objectives of the Meeting
2.2 A short introduction of an ecosystems approach to fisheries
2.3 Adoption of the Agenda and Arrangement of the Meeting |
| 09.45-10.00 | Agenda 3: Review on On-site events in Indonesia, Malaysia and Thailand |
| 10.00-10.30 | Coffee break and group photo |
| 10.30-12.00 | Agenda 4.1: Country presentation on Fisheries and habitat management/ <i>refugia</i> and trans-boundary stocks and habitats and strengthening the fishing capacity management around the Andaman Sea area, focusing the southeast part of the Andaman Sea.
Agenda 4.2: Regional Initiatives on related activities by BOBLME, SEAFDEC/MFRDMD, SEAFDEC/TD |
| 12.00-13.30 | Lunch |
| 13.30-17.00 | Agenda 5: Group discussion on the improvement/cooperation of fisheries management <ul style="list-style-type: none"> • Group 1: Fisheries and habitat management/<i>refugia</i> and trans-boundary stocks and habitats • Group 2: Strengthening Monitoring Control and Surveillance (MCS) Network/ Port Monitoring and Monitoring of Landings by “neighbouring” vessels • Group 3: Strengthening Cooperation of the Vessel Registration System, Vessel record and inventory |
| 18.00-20.00 | Welcome Dinner |

12 October 2011 (Wednesday)

- | | |
|-------------|---|
| 09.00-12.00 | Visit Phuket Fishing Port |
| 12.00-13.30 | Lunch |
| 13.30-15.00 | Agenda 5: Group discussion on the improvement/cooperation of fisheries management (continued) |
| 15.00-15.30 | Coffee Break |
| 15.30-16.30 | Agenda 5: Group Presentation |

13 October 2011 (Thursday)

- | | |
|-------------|---|
| 09.00-10.30 | Agenda 6: Facilitated plenary discussion aiming at finding areas of consensus, priority action suitable for joint approaches and agreements, including references to cross-cutting issues, such as the impacts of |
|-------------|---|

	climate change
10.30-10.45	Coffee Break
10.45-11.45	Agenda 7: Conclusion and Way forward for sub-regional and bilateral/trilateral cooperation
11.45-12.00	Agenda 8: Closing of the Meeting

Review on-site events on the Integration of Fisheries and Habitat Management and the Management of Fishing Capacity in 2010-2011

Dr Ahmadi

The Regional Fisheries Policy Network Member for Indonesia



Review

On-site events on the Integration of Fisheries and Habitat Management and the Management of Fishing Capacity in 2010-2011

THE SUB-REGIONAL CONSULTATIVE MEETING OF
THE SOUTHERN ANDAMAN SEA,
11-13 OCTOBER 2011. PHUKET, THAILAND

Background

- 3 On-site Workshops convened in 2010-2011
- Aimed to provide information and raise awareness on the importance of coastal habitats, need to integrate with fisheries management
- Attended by local fishers, officers at central and provincial government and representatives from neighboring countries also attended (Thailand, Malaysia, Indonesia)
- Study visit: community-based management, mangrove areas also included the program




Issues provided in On-site events

- Importance of habitats and integration to fisheries management,
- Management of fishing capacity, need to accurate data and information to improvement
- Reduction of illegal fishing by improve licensing control and monitoring
- Relevant law and regulation of fishing activities
- Status of transboundary species, Mackerel provided
- Fishing vessel record, port monitoring, MCS implementation and local knowledge in each areas provided.




Common issues raised during the On-site events

- Poor condition of fisheries and habitat resources
- Local realised the importance of coastal habitats, and support for conservation and resource rehabilitation.
- With respect to conservation of fisheries resources such as *Rastrelliger spp* and related species, should more scientific-based information to support for the management measure (closing season)
- Support the installation of Artificial reef, with the involvement local fishers
- Strengthening the capacity and improve the integration of fisheries and habitat management at all levels.




Common issues raised during the On-site events






- Encroachment of larger fishing vessel into coastal waters addressed.
- A need to manage fishing capacity and combat illegal fishing and destructive fishing.
- suggested controlling of the use of fishing gear needs to be improved to avoid conflicts between fishermen
- suggested data collection of fishing boats data size and shape should be improved
- Improving the fishing licensing process



Common issues raised during the On-site events

- Participation and collaboration of all stakeholders for better improvement of fisheries management around the Andaman Sea
- Strengthening the role of fishers groups to actively participate in fisheries planning and management.



Annex 7

Management of fish resources in North Sumatra Province

Dr Matius Bangun

The Head of Marine and Fisheries Agency of North Sumatra Province


MANAGEMENT OF FISH RESOURCES NORTH SUMATERA PROVINCE

WELL COME TO NORTH SUMATERA
Presented at the sub-regional Consultative of the Southern Andaman Sea
By SEAFDEC
11- 13 Oktober 2011
in Phuket Thailand



MARINE AND FISHERIES OFFICE
NORTH SUMATERA PROVINCES, INDONESIA
Sel Batu Gicing no. 6 Medan

I. INTRODUCTION



- Total Area = 181.680 km²
- Land Area = 71.680 km² (39.5 %)
- Sea Area = 110.000 km² (60,5 %)
- Total Length of Costline = 1300 Km
 - East Coast 545 Km,
 - West Coast 375 Km,
 - Nias Island Coast 380 Km
- The Number of small Islands = 419 pieces
 - East Coast 6 pieces
 - West Coast 413 pieces

Indonesia Comit Of II WPP Min Regulations KP No. PER.01/MEN/2009

1	WPP-RI 571	Malacca Strait & Andaman Sea
2	WPP-RI 572	Indian Ocean West Sumatera and Sunda Strait
3	WPP-RI 573	Indian ocean, South of Java Sea, East Nusa Tenggara, Sava Sea and Timor West Sea.
4	WPP-RI 711	Karimata Strait and Natuna Sea
5	WPP-RI 712	Java Sea
6	WPP-RI 713	Makasar Strait,, Bay of Bone, Flores and Bali Sea
7	WPP-RI 714	Bay of Tolo and Banda Sea
8	WPP-RI 715	Teluk Tomini, Maluku, Halmahera and Seram Sea, Bay of Bone
9	WPP-RI 716	Sulawesi and North Halmahera Sea
10	WPP-RI 717	Bay of Cendrawasih and Pasifik Ocean Sea
11	WPP-RI 718	Teluk Aru, Arafura and East Timor Sea



Estimasi Potensi SDI di masing-masing WPP-RI (2010)

Kelompok Sumberdaya Ikan	SI Mala-ka	S. Hindia	L. Cina Sela-tan	Laut Jawa
	571	572	573	711 712
Ikan Pelagis Besar	27.7	164.8	201.4	66.1 55.0
Ikan Pelagis Kecil	147.3	315.9	210.6	621.5 380.0
Ikan Demersal	82.4	68.9	66.2	334.8 375.2
Udang Penaeid	11.4	4.8	5.9	11.9 11.4
Ikan Karang Konsumsi	5.0	8.4	4.5	21.6 9.5
Lobster	0.4	0.6	1.0	0.4 0.5
Cumi-cumi	1.9	1.7	2.1	2.7 5.0
Total Potensi (10³ ton/th)	276,0	565.2	491.7	1,059.0 836.6

Ket. : Data/Angka tersebut masih memerlukan verifikasi dari Komisi Nasional Pengkajian SDI

The Main problem in the Management of Marine and Fisheries WPP 571

- Overfishing,
- Illegal fishing,
- Destruction of mangrove, seagrass beds, estuaries,
- Pollution,
- Siltation,
- Sedimentation,
- Low enforcement and
- Poverty of fishermen

III. FISHERIES ENVIRONMENT

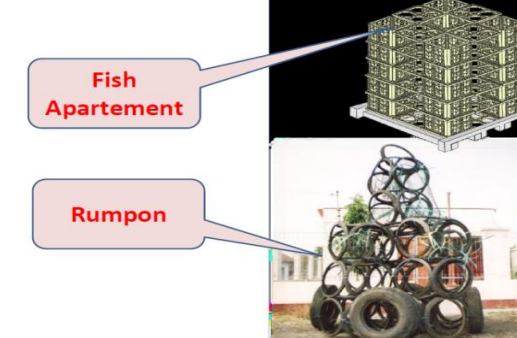
a. Restocking

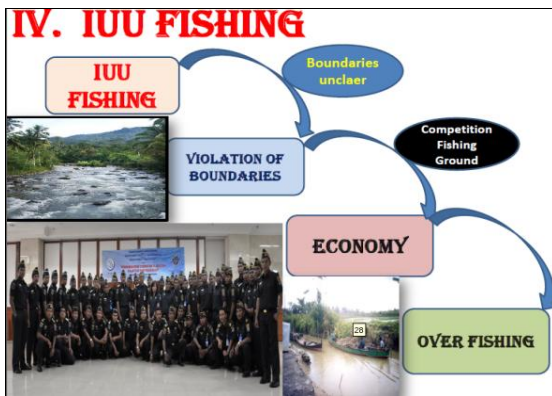
One Man One Thousand Fries:
"suatu gerakan yang diinisiasi oleh Kementerian Kelautan dan Perikanan untuk mendukung upaya pengkayaan sumberdaya ikan di perairan umum daratan dan laut dalam rangka mempercepat pemulihan stok dan peningkatan produksi sumberdaya ikan melalui penebaran benih ikan yang melibatkan pemerintah (pusat dan daerah), pelaku usaha penangkapan dan pelaku usaha budidaya ikan, asosiasi perikanan, serta masyarakat"



Fish Apartement

Rumpon



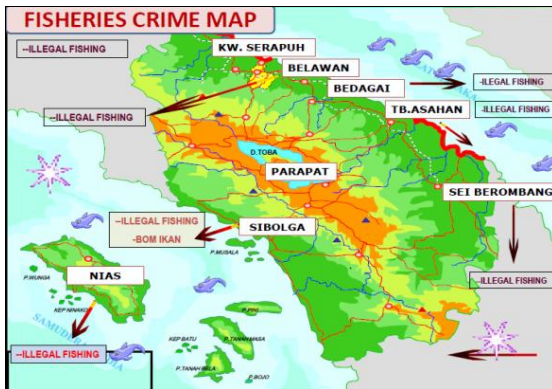


CATCH CERTIFICATE

(Regulation of Maritime Affairs and Fisheries Minister No. PER.28/MEN/2009 about Catch Certificate Considered by EC REGULATION No. 1005/2008)

Goal :

- Increase Eksport Of Fishery Products,
- To Prevent IUU Fishing
- Traceability of Fishery Products
- Supports conservation and Management of Fisheries Resources.



V. VESSEL REGISTRATION

In Indonesia there are 516 Fishing Port:

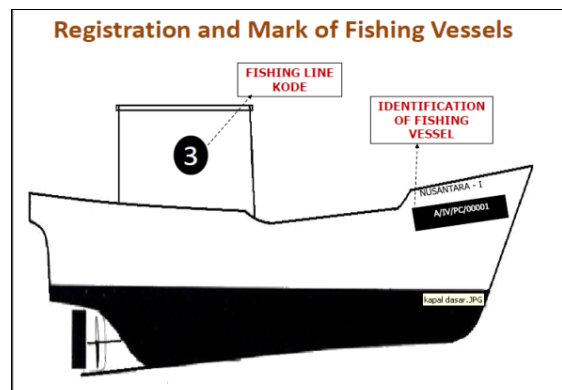
1. Ocean Fishing Port (Type A)
2. Archipelago Fishing Port (Type B),
3. Coastal Fishing Port (Type C),
4. Fish Landing Base (Type D),

In North Sumatera there are 26 Fishing Port :

1. Belawan Ocean Fishing Port (Type A) .. 1 unit
2. Sibolga Archipelago Fishing Port (Type B) ... 1 unit,
3. Pulau Tello Coastal Fishing Port (Type C) 1 unit,
4. Fish Landing Base (Type D) ... 23 unit,

THE AUTHORITY OF PERMISSION

1. **CENTRAL GOVERNMENT**
→ Vessel Size > 30 GT;
2. **PROVINCE GOVERNMENT**
→ Vessel Size > 10 - 30 GT;
3. **REGENCY / CITY**
→ Vessel Size 5 - 10 GT;



MARKING FISHING VESSEL

3 → 5

A/IV/PC/00001

1 2 3 4

Keterangan :

1. A = Central Government Authority
2. IV = Regional Fisheries management
3. PC = Pukat Cincin
4. 00001 = Registration Serial Number
5. 3 = Line 3 (> 12 mil)

Registration Vessel :

- 1) Vessel Name
- 2) Registration Number
- 3) Place of Vessel Building
- 4) Type Vessel and Fishing Gear
- 5) Tonnage,
- 6) Length and Width of Vessel,
- 7) Engine Power,
- 8) Vessel Photo
- 9) Name and Address Of Vessel Owner
- 10) Previous Owner Name

IDENTITY OF FISHING VESSEL BOOKS

- RED COLOR**
Issued By Central Government
- YELLOW COLOR**
Issued By Governors
- GREEN COLOR**
Issued By Regent / mayors

BASE LINE OF CATCH FISHINGG

(Regulation By Minister No. 392/1999)

Jalur I 0-6 mil Jalur II 6-12 mil Jalur III >12 mil

Jalur I a 0-3 mil Jalur I b 3-6 mil

Kab/Kota 0-4 mil Provinsi 0-12 mil Pusat > 12 mil

Kapal 5 - 10 GT Kapal 10 - 30 GT Kapal > 30 GT

Kewenangan Berdasarkan UU No.32/2004

V. PORT MONITORING

1. PERMEN KELAUTAN DAN PERIKANAN NO : 16/MEN/2006 tentang PELABUHAN PERIKANAN
2. SK DIREKTUR JENDERAL PERIKANAN TANGKAP No : 432/DPT3/OT.220/D3/II/2008 tentang Pedoman Evaluasi Kinerja Unit Pelaksana Teknis Pelabuhan Perikanan

Center Of Fisheries Activity in North Sumatera

Belawan Oceanic Fishing Port, Center of Fisheries Activity in East Coast North Sumatera.

Sibolga Archipelago Fishing Port, Center of Fisheries Activity in West Coast North Sumatera.

VI. LAW ENFORCMENT

- a. Conflict Between Fishermen
- b. Industrial Wastes
- c. Decstrution of Mangrove
- d. Illegal Fishing

TERIMA KASIH

Thank You
SEAFDEC, SIDA

Overview of Fisheries Sector in Malaysia

Mrs. Tan Geik Hong

Head of International Relation Section, DOF Malaysia



1. OVERVIEW OF THE FISHERIES SECTOR IN MALAYSIA

General Features

- Coastlines – 4,490 km
- Extension of Malaysian fisheries waters from 47,000 sq.nm to 160,000 sq.nm after EEZ declaration in 1980.
- EEZ comprises part of the Andaman Sea, the Straits of Malacca, the South China Sea, the Sulu Sea and the Celebes Sea.

Number Of Fishing Vessels And Fishermen

Year	Inshore Fishery	Deep Sea Fishery	Total	Fishermen
2000	30,930	601	31,531	81,994
2001	31,237	543	31,780	84,496
2002	30,136	615	30,751	82,630
2003	34,645	813	35,458	89,433
2004	35,303	833	36,148	89,453
2005	35,161	836	36,035	90,702
2006	37,317	926	38,309	97,947
2007	38,248	926	39,268	99,617
2008	43,301	1059	44,421	110,000
2009	47,666	1079	48,745	125,632
2010 ^p	48,500	1354	49,854	129,622

p= preliminary data

Fish Landing

Year	Inshore Fishery (tonnes)	Deep Sea Fishery (tonnes)	Total Landing (tonnes)
2000	1,114,669	171,027	1,285,696
2001	1,063,363	167,926	1,231,289
2002	1,081,337	190,741	1,272,078
2003	1,084,802	198,453	1,283,255
2004	1,060,150	271,495	1,331,645
2005	988,313	221,288	1,209,601
2006	1,128,439	251,331	1,379,770
2007	1,117,068	246,400	1,363,468
2008	1,091,200	286,500	1,377,700
2009	1,081,491	296,471	1,377,962
2010 ^p	1,101,418	334,336	1,435,754

p= preliminary data

2. HABITAT MANAGEMENT

- Payar Island, Segantang Island, Kacha Island, Lembu (Marine Parks) – Establishment of Marine Parks Order 1994
- Singa Besar Island, Langkawi (sea cucumber) – Fisheries (Protected Area For Sea Cucumber) Regulations 2010
- KPEP Tanjung Berembang, Penang – restocking *Macrobrachium rosenbergii*
- KPEP Tanjung Berembang, Penang (in collaboration with NGO – Penang Inshore Fisheries Welfare Association) & Kuala Teriang, Langkawi - replanting of mangrove
- Yan, Langkawi (Kedah) & Kendi Island, Aman Island (Penang), Kuala Sanglang (Perlis) - Artificial reefs – soft bottom artificial reefs
- Kerachut beach, Penang – Turtle Conservation and Information Center: No development within 800 metres from sea front

3. MANAGEMENT OF FISHERIES RESOURCES

3.1 Legal Framework

- Legislation adopted to sustain fisheries resource and to regulate fishing activities are spelt out in The Fisheries Act 1985 and its regulations and other relevant laws.



No.	Fisheries Regulations Under Fisheries Act 1985
1.	Fisheries Maritime Regulations 1967
2.	Fisheries (Prohibition Of Method Of Fishing) Regulations 1980
3.	Fisheries (Maritime) (Licensing Of Local Fishing Vessel) Regulations 1985 Amendment 2010
4.	Fisheries (Marine Culture System) Regulations 1990
5.	Fisheries (Prohibition Of Import, Etc., Of Fish) Regulations 1990
6.	Establishment Of Marine Parks Malaysia Order 1994
7.	Fisheries (Prohibited Areas) Regulations 1994
8.	Fisheries (Control Of Endangered Species Of Fish) Regulations 1999
9.	Fisheries (Cockles Conservation And Culture) Regulations 1999
10.	Fisheries (Protected Area For Sea Cucumber) Regulations 2010

3.2 Management Measures

3.2.1 Direct Limitation of Fishing Effort

- Issuance of new fishing license for coastal fisheries was halted since 1982 (moratorium) meant to reduce fishing pressure
- Vessel registration to control their entry into the fishing industry
- Registration of fishermen
- Owner-operator - Zone A and Zone B vessels

Marking And Identifications On Fishing Vessels

- Wherhouse of the fishing vessel must be painted with color specified for the state.
- The permanent letters of the registration number is according to state.

South China Sea

PERAK, KELANTAN, TERENGGANU, PAHANG, SARAWAK, SABAH, JOHOR, NEGERI SEMBILAN, MELAKA, SELANGOR

Marking And Identification Of Fishing Vessels

Fishing Zone marking

Wheel House

Special marking on trawlers

Registration Number: SLFA4887

Tin Plate

Licence Book

3.2.2 Fishing Zones and Closed Fishing Areas

- purpose to reduce friction between the traditional and commercial fishermen and to avoid over-exploitation and is aimed for equitable allocation of resource
- zones designated for specific fishing gears, class of vessels and ownership

0- 5 nm	5 - 12 nm	12- 30 nm	30 nm to EEZ Boundary	High Seas
A ZONE	B ZONE	C ZONE	C2 ZONE	C3 ZONE
0 - <40 GRT	0 - <40 GRT	40 - <70GRT	70 GRT and above	70 GRT and above
For Traditional Fisherman & Traditional Anchovy Purse Seiner (Owner Operator)	Trawlers & Purse Seiner (Owner Operator)	Trawlers & Purse Seiner (Owner Operated & Non Owner Operated)	Trawlers & Purse Seiner	Tuna Longliners & Tuna Purse Seiner

* There is no restriction for vessels operating in the inner zones to fish in the zones further up e.g. vessels in Zone A are allowed to fish in Zone B, C and C2.

The Transboundary Stock of Indo-Pacific Mackerel (*R.brachysoma*) in the Andaman Sea Coast of Thailand

Mr. Wudtichai Wungkhahart

Director, Andaman sea Fisheries Research and Development Center

The Transboundary Stock;
Indo-Pacific Mackerel,
Rastrelliger brachysoma (Bleeker, 1851):
Status & the Instruments of Management
in the Andaman Sea Coast of Thailand

The Sub-Regional Consultative Meeting of the Southern Andaman Sea
11-13 October 2011

Wudtichai Wungkhahart
Director of
The Andaman Sea Fisheries Research and Development Center

Introduction

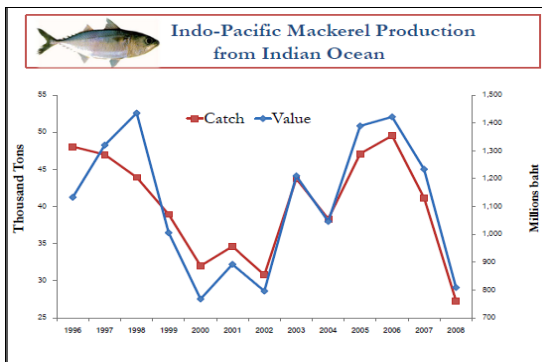
- + Scientific name
Rastrelliger brachysoma (Bleeker, 1851)
- + Common name
Indo-Pacific mackerel, Indo-Pacific chub mackerel, Short-bodies mackerel, Short mackerel
- + Thai name
ปลาทู **Plǎ -Too**

How important of the fish?

- + Food Security Aspect
 - Household consumption
 - Protein supply
 - Culture of food
- + Economic Aspect
 - Fresh fish market
 - Salted fish market
 - Steamed fish market

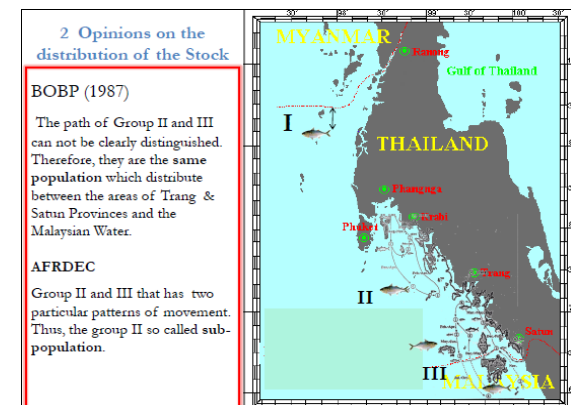
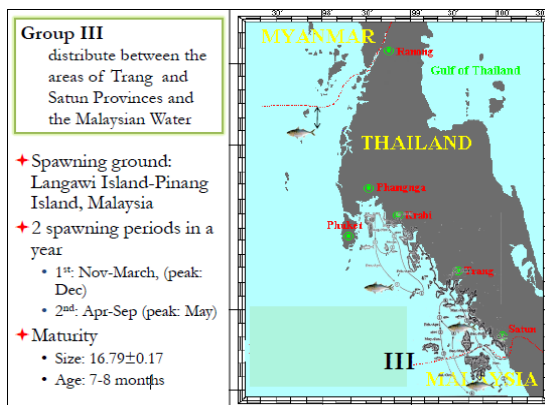
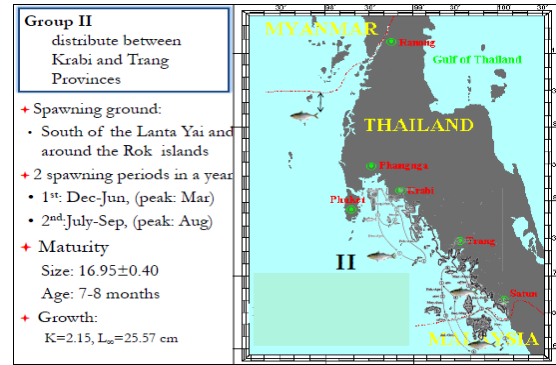
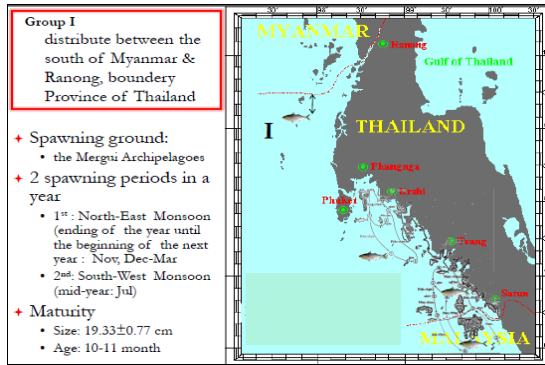
How important of the fish?

- + Fishery Aspect
 - Small scale fishery
 - Gill nets
 - Strake trap
 - Large Scale fishery
 - Purse seines



Distribution of the Stock

- Group I**
distribute between the South of Myanmar & Ranong, boundary Province of Thailand
- Group II**
distribute between Krabi & Trang Provinces
- Group III**
distribute between the areas of Trang & Satun Provinces and the Malaysian Water



Instruments of Management

The establishment of the effective instruments that are not only suitable for the Indo-Pacific Mackerel but also compatible with other marine resources

- Zoning and Timing of restriction
- Fishing Capacity Management
- Monitoring, Control & Surveillance

Zoning and Timing

- The restricted zone of 3,000 m from the shore line.
- The prohibited zone for trawlers and push-netters.
- The establishment of the Seasonal Closed Measure: SCM
 - 3 months: 1 Apr-30 Jun
 - Prohibited: trawlers, purse seiners, gill nets ($\phi < 4.7$ cm)

Fishing Capacity Management

- Survey of fishing vessels (in progress)

This activity is conducted this year that reflected to the Fishery Management Master Plan of the Department of Fishery including

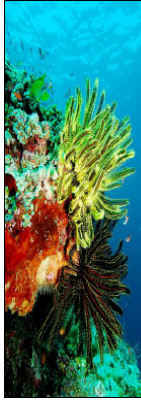
- Types (e.g. purse seiners, trawlers, etc.)
- Sizes of vessel (length in meters, broad in meters, GT, etc.)
- Capacity of engine (HP, in-board, out-of-board, etc.)
- Total no. of fishing vessels: as so far 15,155 vessels

- Registration of fishing vessel and fishing gear
 - Issuing of fishing gear's license
 - Issuing ship's license (cooperate with the Marine Department)
- Log book (filling by Fishers)
 - Catch record
 - Fishing ground record

MCS: Monitoring, Control and Surveillance

Related Stakeholder

- Patrol
- Voluntary Fishers and Local Administration offices (Or-Bor-Tor) Joint patrolling
- Network of Coastal Communities



MCS: Monitoring, Control and Surveillance

- **Communication:** transfer & exchange of standard information
- **Involving of fishers** in fisheries governance e.g. traditional knowledge and wisdom: increase trustiness, co-operation and social network
- **Joint patrolling:** decrease budget but increase capacity of patrol to monitor a vast area of restriction
- **Public awareness promotion** of the conservation of fisheries resources



Annex 10

Critical Habitat Management Marine Ecoregion Andaman Sea/Malacca Straits

Dr. Rudolf Hermes
Chief Technical Advisor of BOBLME

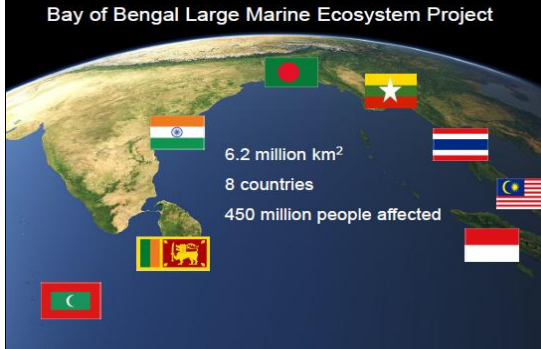


The Bay of Bengal Large Marine Ecosystem (BOBLME) Project:
Critical Habitat Management
Marine Ecoregion Andaman Sea/Malacca Straits

Dr. Rudolf Hermes
Chief Technical Advisor

Sub-regional Consultative Meeting of the Southern Andaman Sea
Phuket, Thailand, 11-13 October 2011

Bay of Bengal Large Marine Ecosystem Project



6.2 million km²
8 countries
450 million people affected

Rapid population growth and high dependence on aquatic resources for food, trade, livelihoods, and increased land use are having major impacts on the marine ecosystem



The Bay of Bengal is experiencing

- over exploitation of fish stocks
- habitat degradation
- land based pollution

➤ uncertainty whether the ecosystem will be able to support livelihoods in the future




Large Marine Ecosystems of the World



www.lms.noaa.gov
www.boblme.org

5 MODULES WITH INDICATORS

Modular Assessments for Sustainable Development



- PRODUCTIVITY MODULE INDICATORS**
 - Photosynthetic activity
 - Zooplankton biodiversity
 - Oceanographic variability
 - Zooplankton biomass
 - Ichthyoplankton biodiversity
- POLLUTION & ECOSYSTEM HEALTH MODULE INDICATORS**
 - Eutrophication
 - Bioxenosis
 - Pathology
 - Emerging disease
 - Health indices
 - Multiple marine ecological disturbances
- FISH & FISHERIES MODULE INDICATORS**
 - Biodiversity
 - Fishfish
 - Shellfish
 - Demersal species
 - Pelagic species
- SOCIOECONOMIC MODULE INDICATORS**
 - Integrated assessments
 - Human forcing
 - Sustainability of long-term socioeconomic benefits
- GOVERNANCE MODULE INDICATORS**
 - Stakeholder participation
 - Adaptive management

Bay of Bengal Large Marine Ecosystem: Exclusive Economic Zones (EEZ)



Eight countries, connected by one ecosystem, working together to secure its future.

The BOBLME Project has five (5) Components




Development of an Action Plan
Resources Management
Understanding the Environment
Ecosystem Health
Communications and M&E
(total of 16 Sub-components)

BOBLME has 10 Major Areas of Work




Transboundary Diagnostic Analysis and Regional Strategic Action Plan
Integrated Coastal Management
Policy Harmonization
Fisheries Resources Assessment and Management
Collaborative Critical Habitat Management
Ocean Dynamics, Productivity and Climate Change
Marine Protected Areas
Ecosystem Health Indicators
Land-Based Sources of Pollution
Communications


Component 2: Coastal / Marine Natural Resource Management and Sustainable Use

- Promote community-based management and co-management (2.1)
- Improve policy harmonization (2.2)
- Regional fishery assessments and management plans (hilsa shads, Indian mackerel, sharks - RPOA) (2.3)
- Collaborative critical habitat management (2.4)




Expected Outputs of the BOBLME Project

1. Transboundary Diagnostic Analysis
2. Establishment of an institutional arrangement which is financially sustainable
3. Commitment from the BOBLME countries to implement a Strategic Action Programme (SAP)



Expected Outcomes of the BOBLME Project

- **Stronger governance:**
 - Improvements in policy development
 - Processes for planning and dialogue
- **Better knowledge of:**
 - Fisheries for hilsa shad and Indian mackerel
 - BOBLME's large-scale processes and ecology
 - Likely effects of climate change
 - Basic ecosystem health indicators in the BOBLME
- **Improved resource management:**
 - Better understanding of small-scale fisheries issues
 - Co-management - Multi-sectoral involvement
 - Healthier habitats and ecosystems
 - Sustainable fisheries
- **Improved well-being, greater resilience of coastal communities**

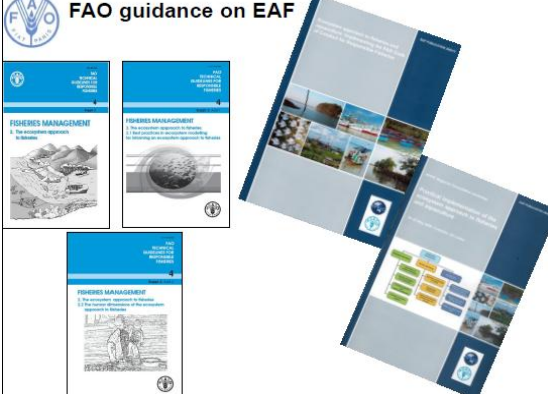


The Ecosystem Approach to Fisheries (EAF)
is the approach BOBLME is using to promote sustainable development

Sustainable Development (EAF)

Ecological well-being Human well-being Governance - ability to achieve -

FAO guidance on EAF



Collaborative Critical Habitat Management



Gulf of Mannar (India and Sri Lanka)


Mergui Archipelago (Thailand and Myanmar)

Malacca Strait (INS, MAL, THA)

"promote multi-national approaches to manage and address issues affecting transboundary coastal / marine ecosystems"

Collaborative Critical Habitat Management Southern Andaman Sea – Malacca Strait

- **Confirm major common issues / priorities**
 - Shared fisheries resources and management of transboundary fish stocks
 - Habitat management, fish refugia or MPAs
 - Ecosystem Health monitoring, pollution prevention
 - Oceanography and large-scale processes
- **Identify existing initiatives to build on**
- **Decide on a collaborative way forward**
- **Draft proposals for related activities**



Thank you for your attention

www.boblme.org

Annex 12

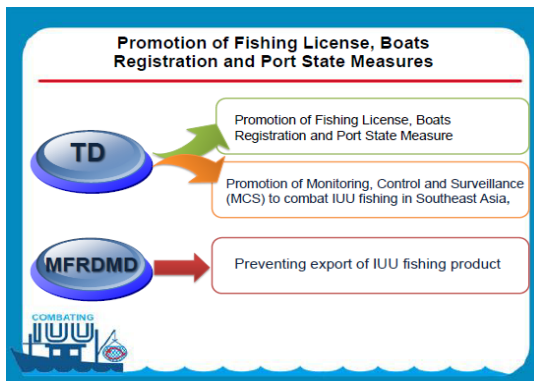
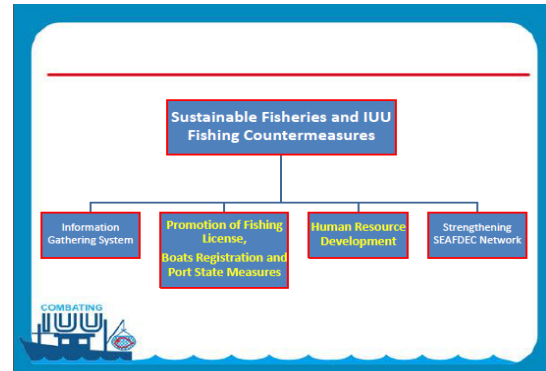
Promotion of Fishing Licensing, Boats Registration and Port State Measures

Mr. Kongpathai Saraphaivanich

Head of Information and Communications Technology Section

Regional Initiatives on related activities


Training Department

Promotion of Fishing License, Boats Registration and Port State Measures

Project Objectives

- To promote fishing license, boats registration and port state measures to combat IUU fishing
- To develop regional guidelines on fishing license and boats registration in Southeast Asia
- To promote MCS management for sustainable fisheries in the region
- To develop regional guideline to prevent IUU fishing and its products from being exported
- To assist the SEAFDEC Member Countries in application and implementation of IUU fishing related countermeasures




Activities 2011

- Literature review on fishing license, boats registration and PSMs
- Identification list of experts on fishing license, boats registration and port state measures in collaboration with member countries
- Coordination and cooperation with Regional/ International Organizations




Activities 2011



REGIONAL CORE EXPERTS MEETING ON FISHING LICENSE, BOATS REGISTRATION AND INFORMATION ON EXPORT OF FISHERIES PRODUCTS IN SOUTHEAST ASIA 4-7 October 2011

- Issues on Boat Registration, Fishing License and Information on Export-Import of Fisheries Products with Suggested Solutions
- Discussion and recommendation on Boat Registration and Fishing License for development of regional guidelines
- Information requirement for the regional guidelines
- Dedication e-mail of experts group
- Establishment of IUU website



Activities Plan 2012

1. Promotion of fishing license, boats registration system and port state measures to combat IUU fishing (TD)

1.1 Regional/international coordination and cooperation

1.2 Development of regional guidelines on fishing license, boat registration system and other related port state measures in Southeast Asia

- Regional core experts Meeting
- Regional Technical Consultation (RTC) to develop the regional guidelines on fishing license, and boats registration in Southeast Asia

1.3 Production of information and promotional materials



Thank you very much for your kind attention




Annex 13

The HRD and awareness building program for Sustainable fisheries and combating IUU fishing in Southeast Asia


Mrs. Panitnard Taladon
Training and Extension Section Head

HRD and Awareness Building Programs for Sustainable Fisheries and Combating IUU Fishing in Southeast Asia



Project Objectives

- To build and strengthen knowledge of MCs on fisheries management to combat IUU fishing as well as for sustainable fisheries through the use of HRD and awareness building programs
- To build capacity and knowledge of MCs on appropriate tools and methodologies for gathering fishery information and statistics to better present status and performance of marine (coastal) fisheries for development planning and management of fisheries that contribute to combating IUU fishing in the region.



Activities 2011

THE REGIONAL WORKSHOP ON HRD PROGRAMS FOR SUSTAINABLE FISHERIES AND RELATED COUNTER-MEASURES TO COMBAT IUU FISHING IN SOUTHEAST ASIA
6-8 July 2011, Bangkok, Thailand





Activities 2011

Regional Training Course on Fisheries Management to Combat IUU Fishing for Fishery Managers
(6-15 September 2011)




Activities 2011

- Regional Training for the Trainers Course on Ecosystem Approaches to Fisheries and Extension Methodologies (22 Nov. -16 Dec. 2011)



Activities 2012

Activity 1	Regional Training for the Trainers Course on Fisheries Management to Combat IUU Fishing
Activity 2:	Regional Training for the Trainers Course on Ecosystem Approaches to Fisheries and Extension Methodologies
Activity 3	Regional Training Course on Effective MCS System
Activity 4	Regional Training for the Trainers Course on Fishery Information and Statistics for Management of Marine (Coastal) Fisheries
Activity 5	Production of Promotion Materials and Training Toolkits



Part of the Report of the Regional Workshop on related Counter-Measures to Combat IUU Fishing in Southeast Asia, 6-8 July 2011, Bangkok, Thailand

1. A summary of the common needs of the countries in the region for HRD to combat IUU fishing include:

- i. Improvement of vessel monitoring/inspection at national level
- ii. Improvement of capacity for vessel inspection
- iii. Improvement of the capacity of fish inspection officers at landing sites and ports
- iv. Training of trainers to facilitate inspection processes
- v. Development of guidelines and manuals for inspectors
- vi. Development of onboard observer programs
- vii. Strengthen national data/information system to improve catch recording
- viii. Training on MCS
- ix. Development of training modules on combating IUU fishing and catch documentation, targeting the fishers, local communities and local authorities

2. In addition, the technical and non-technical requirements identified for HRD to combat IUU fishing include:

Technical requirements

- i. Materials for future training modules and courses should include information on types and extent of IUU fishing activities, and the available relevant regulations at the national level
- ii. Training on onboard observer program should be developed to minimize IUU fishing
- iii. Certification for port inspectors should be established in order that professionalism would be recognized

Non-technical requirements

- i. Sharing of information on agreements among bordering countries especially in rules and regulations (*e.g.* regional and international agreements)
- ii. Reducing fishing pressure and fishers' involvement in IUU fishing through the introduction of alternative livelihoods, *e.g.* aquaculture activities
- iii. Enhancing involvement of fishers in community-based fisheries management (CBFM) programs to enhance the collection of data and information as well as in monitoring IUU activities
- iv. Improving cooperation among the countries in the region, *e.g.* regional MCS network

3. Moreover, the issues and challenges identified in promoting HRD to combat IUU fishing include:

- i. Overfishing capacity vis-à-vis resources and over investment --- decreasing of catch per unit effort (CPUE)
- ii. Destruction of aquatic ecosystem
- iii. Inadequate information system and sharing mechanism
- iv. Number of inshore fishing boats in the coastal areas should be reduced

- v. Inadequate mechanism on management of conflicts between inshore and offshore (small-scale vs. commercial) fishing boats
- vi. Input control (licensing system) should be established
- vii. Absence of efforts for assessment of resources to assign license quota based on available resources
- viii. Ineffective MCS or non-existence of MCS
- ix. Ineffective surveillance and enforcement
- x. Lack of harmonized definition of IUU fishing (poaching included)
- xi. Inadequate manpower for enforcement
- xii. Lack of framework for implementation of CBFM
- xiii. Insufficient sub-regional and regional management mechanism
- xiv. Weak stakeholders' awareness on IUU fishing

4. Furthermore, the opportunities identified for the promotion of HRD to combat IUU fishing include:

- i. Existing regional training centers and facilities should be availed of
- ii. Bilateral and sub-regional collaboration on enforcement already existing
- iii. Regional Plan of Action on promoting responsible fishing practices to combat IUU fishing
- iv. Resolution and Plan of Action for sustainable fisheries for the ASEAN region towards 2020
- v. Existing regional fisheries management organizations (RFMOs) in the region
- vi. Regional Guidelines on the Code of Conduct for Responsible Fisheries
- vii. FAO port state measures and port inspection guidelines
- viii. Coral Triangle Fishers Forum (CTFF) which allows participant to gain perspective from fishers around the region, learn more about the issues that affect them, and gain a common ground in achieving sustainable and equitable fisheries
- ix. Seafood Savers Program is a coalition of corporations practicing sustainable fisheries, which aims to educate fishing companies and seafood consumers to maintain seafood stocks sustainability
- x. Activities under the Bay of Bengal Large Marine Ecosystem (BOBLME) project
- xi. Global Fishing Record or the Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels, the development of which is aimed at assisting relevant agencies in the battle to prevent, deter and eliminate IUU fishing and related activities

**Part of the Report of the Regional Core Experts Meeting on
Fishing License, Boats Registration and
Information on Export of Fisheries Products in Southeast Asia
Bangkok, Thailand, 4-7 October 2011**

**Summary of Discussions and Recommendations for Development of
the Regional Guidelines**

I. Boat Registration

- 1.1 Strengthen cooperation and establish MOUs among agencies concerned, and enhance exchange of database systems among agencies concerned.
- 1.2 Provide incentives in the form of lower fuel prices, compensations for accidents at sea, adoption of insurance system, promote reduced fee for boat registration of small fishing boats for certain period of time.
- 1.3 Promote stakeholders participation in consultations and in formulating regulations, enhance adoption of legal frameworks by all stakeholders.
- 1.4 Enhance human capacity and awareness building for all stakeholders, intensify information dissemination through the use of media and promotion materials to understand the rules on boats registration, outsource expertise as and when necessary, and conduct study trips to countries for exchange and sharing of experiences and lessons learned.
- 1.5 Adapt similar regulations under MSO (Merchants Shipping Ordinance) of Malaysia for the implementation of all national and international legislations in relation to safety of shipping and the prevention of pollution of the marine environment from ship-based sources.
- 1.6 Establish mobile boat registration units in strategic areas.
- 1.7 Harmonize measurements of fishing boats in the region and develop guidelines for boat registration.
- 1.8 Ensure that life safety appliances (LSA) are provided onboard fishing boats based on the IMO regulations before registration is granted, that safety measures of crew onboard are in play based on ILO regulations, and that boats and equipment are in top conditions through strict inspection before registering fishing boats.
- 1.9 Revive the “genuine and visible link’ concept under the UNCLOS 1982 (between countries and fishing boats).
- 1.10 Ensure that warranty (permit) from countries of origin in the case of imported or purchased vessels from another countries, should indicate that sale of vessel is legal and original registration has already been cancelled in countries of origin (enhance traceability of original registration of boats), identify relevant agencies responsible for checking appropriate records emanating from donor countries, encourage shipbuilders to keep record of and register the boats that they manufacture, and promote self-declaration of small boats manufactured by fishers.

II. Fishing Licensing

- 2.1 Strict implementation of Monitoring, Control and Surveillance activities to mitigate the misuse of fishing licenses by enhancing manpower and providing adequate budget.
- 2.2 Improve standards and systems of inspection and set up Enforcement Units to check all documents prior to issuance of licensing, promote strict enforcement of inspection regulations by concerned officers, and identify the relevant agencies responsible for checking appropriate records emanating from countries of origin.
- 2.3 Enhance collaboration among concerned agencies (e.g. fisheries agencies, navy, marine police, coast guard).
- 2.4 Improve implementation of standard boat marking systems for the region and/or sub-region or transboundary countries.
- 2.5 Enhance awareness and capacity building, information dissemination, conduct pilot studies on the valuation of resources and come up with standard resource rents, and validate and harmonize different fees in different countries.
- 2.6 Provide incentives in the form of lower fuel prices, compensations for accidents at sea, adoption of insurance system, reducing license fees, establish mobile units for licensing, promote the use of fishers' ID.
- 2.7 Establish mobile units for registration and licensing at one time in strategic areas.
- 2.8 Use media and promotion materials to inform boat owners and understand the rules on fishing licensing
- 2.9 Promote the organization of fisheries associations or fishery cooperatives and the listing of fishers.
- 2.10 Display list of registrations authorized by each country in the website and in billboards.
- 2.11 Establish database of registered and licensed fishing vessels including results of research studies on fisheries resource rents to be used as basis to reflect license and permit fees and MSY, improve exchange of relevant databases and information among the countries, lessons learned and experiences, and initiate harmonization of terminologies and definitions.
- 2.12 Promote the use of electronic technologies (e.g. chips, bar code, RFID), and promote the use of fishers IDs.

III. Information on Export of Fisheries Products

- 3.1 Products should be landed at ports and subjected to undergo official inspections by customs and fisheries inspection officers.
- 3.2 Fisheries departments to collaborate with customs department to improve data collection and transparency.
- 3.3 Establish good collaboration between customs departments of exporting and importing countries with transboundary areas.
- 3.4 Enhance awareness and capacity building of all stakeholders to ensure that products are legally landed, inspected and recorded.

- 3.5 Establish formal agreements with relevant countries with transboundary areas to ensure that there is no double reporting of data and that data are properly recorded in countries where catch had been derived.
- 3.6 Upgrade licensing and registration documents as these could be accurate sources of data and information.
- 3.7 Strengthen product monitoring systems in ports, landing sites, local markets or open (weekend) markets (in borders) with stakeholders participation.
- 3.8 Encourage the sharing of information on export and import tax rates to enable countries to adjust acceptable taxes on products to encourage proper declaration of catch.
- 3.9 Strengthen informal arrangements (brother-sister communication) or formal agreements among relevant countries with transboundary areas to ensure that data are properly recorded and compiled by countries where catch had been derived.
- 3.10 Establish and issue simplified catch certificates (e.g. form of product declarations or product documentation) appropriate for ASEAN countries for every fish product trading transaction taking as example the CC under EU Regulation.
- 3.11 Strengthen existing mechanism of each country (e.g., the use of IMD (Import Movement Document) of Thailand or Product Movement Document (PMD) of Myanmar) and make sure that all fish products pass through proper inspection in order that data are properly recorded.
- 3.12 Harmonize data collection and compilation system.
- 3.13 Promote human capacity building (training) on data collection and other relevant aspects.
- 3.14 Establish formal agreements with concerned countries to ensure that data are properly recorded and compiled by countries where catch had been derived.
- 3.15 Promote the use of logbook or similar means of recording data (as much as possible).
- 3.16 Develop capacity of fishers or fish masters to be able to enter data in logbooks as means of assessing the performance of fishing vessels (e.g. Laporan Operasi Vessel (LOV) or Vessel Operation Report of Malaysia—one page logbook system).
- 3.17 Provide forms of incentives to fishers using logbooks, (e.g. provide logbooks free of charge, offer higher price of catch for boats with logbooks, logbook as requirement for renewal of fishing license).
- 3.18 Conduct sampling at ports and landing sites.
- 3.19 Conduct surveys on fishing activities and gears used in inland water bodies.
- 3.20 Promote capacity building on data collection system in inland fisheries.
- 3.21 Strengthen collaboration among multi-user agencies of inland waters.
- 3.22 Consider the development of measures to combat and deter IUU fishing in inland waters (e.g. strengthen co-management and management of inland

fishery resources) taking into consideration the measures used in marine capture fisheries.

- 3.23 Improve legal fisheries framework to include the promotion of the use of product documentation (e.g. MC TD – transshipment document of Thailand) which should be submitted to appropriate inspection authorities in ports or landing sites.

IV. Cross-cutting Issues

- 4.1 Promote the adoption of Catch Certification and implementation of logbook system.
- 4.2 Shipbuilders to keep record of and register the boats that they manufacture.
- 4.3 Ensure that warranty (permit) from countries of origin in the case of imported or purchased vessels from another countries, should indicate that sale of vessel is legal and original registration in countries of origin has already been cancelled (enhance traceability of original registration of boats).
- 4.4 Promote of conduct of stock assessment for commercially exploited fish species to address fishing overcapacity.

V. General Recommendations

- 5.1 In order to accomplish more, promote boat registration and fishing licensing slowly and step-by-step not necessarily 100% at once.
- 5.2 SEAFDEC to develop website design and contents on IUU fishing and make sure that the website is interactive.
- 5.3 Disseminate information or listing of known or observed or potential IUU fishing boats that have been published somewhere, RPOA IUU Secretariat could assist by providing the necessary information and the mechanism of addressing IUU fishing in the region.
- 5.4 Promote the establishment of Regional Record of Fishing Vessels, as a subset of the FAO International Record, and to prepare the region for the compilation of the International Record which could be made mandatory in the future.
- 5.5 SEAFDEC to initiate the compilation of the countries' registration and licensing fees, the results of which can be used by the countries in adjusting their respective fees and address the undervaluation of fees in some countries.
- 5.6 SEAFDEC to compile the minimum requirements for boat registration and fishing licensing from each country which could be used as inputs in the development of the regional guidelines on boat registration and fishing licensing.
- 5.7 Improve and update the list of Core Experts on IUU Fishing prepared by SEAFDEC.
- 5.8 Establish dedicated e-mail for the Core Experts on IUU Fishing.

GROUP 1
FISHERIES AND HABITAT MANAGEMENT/REFUGIA AND
TRANS-BOUNDARY STOCKS AND HABITATS

HABITATS: Indicate important habitat areas in need of management/ restoration (especially mangrove) together to build upon existing management or protected habitats for the development of larger fisheries resources management areas.

Identification of habitats

- ❖ The group identified 3 types of habitats that are important for small pelagic fishes: 1) mangroves, 2) coral reefs, and 3) sea grass beds. Location of important habitats is shown in the map (*mangroves shaded in blue; coral reefs shaded in pink; and sea grass beds shaded in yellow*).

Required Actions

- ❖ Integrated management should be considered in management of habitats, e.g. management of activities should start from terrestrial until water areas -- not focusing only on particular habitats (e.g. MPAs or mangrove forest), but also land based activities that may create impact to the ecosystems such as pollution, etc.

Timeline

-

Responsible agencies (by country)

- ⊙ Thailand
 - Management of all habitat types is under the Department of Marine and Coastal Resources (DMCR). Marine Parks are under the National Park, Wildlife and Plant Department (both under Ministry of Natural Resources and Environment). Mapping of three habitats had already been done, and management plans for the three habitats already exist in Thailand.
 - Monitoring of sea water:
 - Pollution Control Department – monitoring of sea water quality standards for different zone.
 - DMCR – monitoring of physical, chemical and biological parameters of seawaters.
- ⊙ Indonesia
 - Management of habitats is under Directorate General of Capture Fisheries and Directorate General of Marine, Coastal and Small Islands (both are under Ministry of Marine Affairs and Fisheries), Ministry of Forestry.
 - Monitoring of pollution is under Ministry of Environment.
- ⊙ Malaysia
 - Management of mangrove is under State Forestry Department (Ministry of Natural Resources and Environment).
 - Management of sea grass beds is under Department of Fisheries (Ministry of Agriculture and Agro-based Industries).

- Management of coral reefs is under Department of Marine Park (Ministry of Natural Resources and Environment).
- Monitoring of pollution is under Department of Environment (Ministry of Natural Resources and Environment).

RESOURCES: Identify common understanding on movement and lifecycle of the *Rastrelliger* spp and related species, and common steps to regulate fishing activities

Identification of Resources

Mapping of fishing activities/resources:

- ◎ Thailand
 - Thailand can identify both spawning seasons and areas, e.g. spawning ground nearby Adang-Rawi Island and Phang-nga bay.
 - Migratory route of Indo-pacific Mackerel was identified (during the BOBP study in 1987, and some other recent studies).
 - Fishing grounds of Thailand (using purse seine) are identified as shown in the map (shaded in blue).
- ◎ Indonesia and Malaysia
 - Indonesia and Malaysia have information on spawning seasons, but not on spawning areas.
 - Fishing grounds of Indonesia and Malaysia are identified as shown in the map (shaded in blue).

Required Actions

- ❖ Data should be collected to obtain better understanding on spawning grounds of the species:
 - Relevant data that is already available, e.g. from study under BOBP program and studies conducted by the countries, etc., should be explored, collected and collated in order to provide better picture on fish spawning areas, feeding areas, migration patterns, etc.
 - Data from research studies that are planned to be conducted by relevant organizations (e.g. data from genetic study to be undertaken by BOBLME and SEAFDEC/MFRDMD) should also be utilized when available to obtain better understanding on the fish population.
 - Study and data collection (e.g. on fish length, gonad Index study, catch trend over time, etc.) should be further conducted on spawning grounds and migration of small pelagic species in trans-boundary areas (especially in the identified fishing grounds).
- ❖ In addition to fisheries data, relevant oceanographic data should also be incorporated in the study:
 - Study on linkage between important oceanographic parameters (e.g. water circulation, water temperature, precipitation (rainfall in inland areas but flood nutrients into the shore areas) and the movement of fish.
 - Study on linkage between oceanographic phenomenon (such as *el nino*, *la nina* and Indian Ocean Dipole) and fish behavior/migration, in order to have better understanding on reasons for fish behavior and to come up with appropriate management measures/ regulations.
 - Some oceanographic phenomenon such as drastic increase in temperature can cause coral bleaching. However, as coral reefs are considered very important habitats in marine ecosystem/for the pelagic fishery resources, Thailand and Malaysia had

established closed areas after occurrence of coral bleaching. In Thailand, some coral reef areas can recover after the closed areas; Thailand is therefore conducting study on genetic of corals in relation to their ability to recover after bleaching.

- ❖ Establishment of Mackerel Management Areas should be considered in the future.
 - To recognize the highly possible shared stocks by the countries that required jointed actions in managing these resources.
 - Objective of the establishment conservation and management areas (e.g. fishery *refugia*) should focus on improving fishery resources, and should not be “no-take zone”.
 - Mackerel management measures have already existed at country level (e.g. closed areas/seasons for Mackerel in Thailand, and closed areas/seasons in general in Indonesia and Malaysia). To enhance the management of the species in broader areas, establishment of Mackerel management plan at sub-regional level (e.g. involving Thailand, Malaysia, Indonesia, as well as some BOBLME countries) may be considered in the future. Management advice should be formulated and provided to countries, which may also include the necessity for the establishment of joint management body among relevant countries. However, the Mackerel management plan would have to be aligned (and not conflicted) with national plan (if already in existence).
 - Although it is generally recognized that currently scientific data and information on Mackerel resources is still insufficient; precautionary approach should be applied in developing management plan for the sub-region. The relevant data/information that is already available should be mobilized to serve as a basis for the establishment this plan. Data that is already available such as those from pre-assessment report of BOBLME, which includes data on land-based pollution and resources status.

Timeline

Generally, **timeline should in-line with timeline of the BOBLME action plan** (e.g. on gathering of information, formulation/implementation of activities, etc.)

- ❖ Gathering of data/information on spawning areas/seasons should be done by countries – by 1 year -- Thailand had already collected the data on spawning areas/seasons, and will further review the relevant available data. In addition, Indonesia and Malaysia should also formulate and submit proposal to BOBLME by the end of 2011 or by January 2012.
- ❖ Data/information on shared stock (same as BOBLME action plan on DNA study) – As Thailand has already submitted proposal to BOBLME for the study. Malaysia and Indonesia are encouraged to also submit the proposal (by the end of 2011 or by January 2012), following the similar DNA study methodologies of Thailand. As both BOBLME and SEAFDEC are planning to conduct study on DNA study, BOBLME and SEAFDEC will also have to closely cooperate on species to focus on DNA study.
- ❖ When countries had collected information, the information should be further collated by SEAFDEC for compilation and use as a basis for development of regional Mackerel Management Plan.

- ❖ Assessment of status of shared stock (conduct of Workshop on Stock Assessment by BOBLME, following timeline of BOBLME)

Responsible agencies (by country)

- ⦿ Thailand: Department of Fisheries
- ⦿ Indonesia: Directorate General for Capture Fisheries (MMAF)
- ⦿ Malaysia: Department of Fisheries

HUMAN CAPACITY: Step suitable partners to strengthen local organizations

Required Actions

- ❖ Collect and collate historical data and information (including BOBP data)
- ❖ Reviewing of existing data and information
- ❖ Assessment of resources based on available data and information including the oceanography data

Suitable partners

- ❖ Regional Level
 - SEAFDEC
 - BOBLME Project
 - ASEAN Sectoral Working Group on Fisheries (ASWGF_i)
 - ASEAN Sectoral Working Group on Coast and Marine Environment (ASWGCME)
 - ASEAN Fisheries Consultative Forum (AFCF)
 - Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) sub-region
 - World Wildlife Fund for Nature (WWF)

In addition, establishment of Joint Working Group on Mackerel Management could be considered in the future.

- ❖ National level
 - Relevant government agencies (different for each country)
 - Academic institutes/universities, etc.
 - Relevant private sectors (e.g. shipping company, oil palm, etc.)
 - Fishers organizations

Strengthening of local organizations (e.g. local governments, NGOs, fishers organizations) in the following areas:

- ❖ Involvement of local organizations in the whole process of management should be promoted/enhanced (in line with EAF approach).
- ❖ Role of local government in fisheries management should be strengthened, e.g. establishment of closed areas/seasons for fishing activities, etc.
- ❖ HRD on EAF should be conducted by relevant organizations (e.g. SEAFDEC, BOBLME, etc.) e.g. training for the trainers and further extended to local levels.
- ❖ Information dissemination, communication and awareness raising activities should be conducted to enhance understanding of local communities and relevant stakeholders on the importance of fisheries management and the ecosystem approach to fisheries (EAF).
- ❖ Roles of local organizations/communities in providing information and knowledge based on the actual situation should be strengthened, e.g. through training of local researchers in data/information collection. Information should be mobilized and incorporated with other data and information (e.g. from research, statistics, etc.). In order to enhance the provision of such information, awareness on the importance of data/information should also be enhanced among fishers/local communities.

Responsible Agency and Timeline

- ❖ Training on application of oceanographic information on assessment of pelagic resources (SEAFDEC will explore funding support from BOBLME to for human capacity building activity – by 2012)
- ❖ Awareness raising program and capacity building on EAF for fishers/stakeholders should be on-going activities of responsible national agencies. Activities under the

national taskforce should involve stakeholders if possible. If additional budget is required, proposal should be submitted by individual countries to BOBLME.

Report from this Meeting should be submitted to the national coordinator for BOBLME of each country in order that the activities could be incorporated in the work plan.

Annex 17

GROUP 2 STRENGTHENING MONITORING, CONTROL AND SURVEILLANCE (MCS) NETWORK/PORT MONITORING AND MONITORING OF LANDING BY “NEIGHBOURING” VESSELS

Identification of Problem/Issues

1. Information to be shared and suitable for MCS

Required actions

- ❖ The countries identified the following information to be shared among IMT countries
 - Registration No. and size of fishing vessels
 - Fishing gears (type and number)
 - Fishing license
- ❖ Establishment of website to upload the data that can be shared

Timeline

- ❖ Medium term

Responsible agencies

- ⊙ Indonesia : Ministry of Marine Affairs and Fisheries
- ⊙ Malaysia: DOF/Fisheries Development Authority
- ⊙ Thailand: IUU coordinating unit of DOF

2. Monitoring of catch landing of fishing vessels under the law of the flag state (should report to the flag’s authorities)

Required actions

- ❖ Formal mechanism for the materialization of the MOU among the Member Countries of SEAFDEC should be done, e.g. Indonesian vessel fish in Indonesia but land the catch in Thailand should report the data back to Indonesia, Malaysia vessels land in Thailand should report catch to Malaysia (another e.g. Napoleon wrasse fish in Thailand but landed in Sabah)
 - Develop MOU among the IMT countries
 - Reporting of fishing vessels from any of 3 countries that land their catch in any of the countries

Timeline

- ❖ Short and Medium terms

Responsible agencies

- ⊙ Indonesia: Directorate of Fishing Ports under Ministry of Marine Affairs and Fisheries, while Private fishing port report to local government.
- ⊙ Malaysia: Fisheries Development Authority (catch landing record will be collected by DOF officers)

- ⊙ Thailand: local waters landed by Thailand vessel/flag have to submit the logbook indicating the catch from Thai waters, either joint venture or fishing in high seas. For foreign vessel/flag that fish in any country's waters have to submit the catch certificate at the port where catch is landed.

3. Transshipment of catch at sea

Required actions

- ❖ Vessel should report their catch in the form of product documents, e.g. MCTD of Thailand which includes the area where fishing is done and report to authorities in main ports.
- ❖ Another e.g. Malsindo program – Malaysia, Singapore and Indonesia collaboration could be used as example for investigation of fishing vessels.
- ❖ Reporting the fishing vessel from any of 3 countries that landed on any of the 3 countries

Timeline

- ❖ Short term

4. Overlapping of Claim Territorial Waters

Required actions

- ❖ The areas with overlapping borders should be cleared especially territorial waters between Indonesia and Malaysia.
- ❖ Indonesia and Malaysia have a Joint Cooperation Mechanism (JCM) to reduce the conflict about the overlapping claims (but the group decided to not discuss in detail since it didn't our mandate).
- ❖ Grey areas should be cleared among the IMT countries
- ❖ Clarification of boundary areas
- ❖ Thailand and Malaysia have clear the boundary areas since TH and ML have the Joint Development Area (JDA)

Timeline

- ❖ Short and medium terms

Responsible agencies

- ⊙ Joint Cooperation Mechanism between Indonesia and Malaysia.

5. Foreign Vessel Apprehension

Required actions

- ❖ Information to be shared could include: date of arrest, position, type of offense, name of crew, vessel registration, flag state and name, name of crew, fishing gears.
- ❖ Establishment of website to upload the data that can be shared.

Timeline

- ❖ Medium term

Responsible agencies

- ⊙ Indonesia: official investigators at MMAF
- ⊙ Malaysia: Malaysian Maritime Enforcement Agency
- ⊙ Thailand: police station and go through the court and embassy

6. MSC Network Strengthening

Required actions

- ❖ Malaysia, Indonesia and Singapore have the existing mechanism for the joint cooperation among those countries in Malacca Strait which under Maritime Enforcement Coordination Center.
- ❖ Thailand would like to explore the possibility that the country might join the mechanism in the future.
- ❖ Thailand and Malaysia have joint border committee (JBC) for transfer of fish across border
- ❖ Indonesia and Thailand still do not have this mechanism.
- ❖ JBC should be strengthened as an example of a mechanism and the possibility to expand such mechanism to the three countries could be explored
- ❖ Training of port inspection of 3 IMT countries.
- ❖ Annual meeting among 3 countries should be done to discuss issues to combat IUU fishing.
- ❖ Establishment of harmonized method for stock assessment between 3 IMT countries.
- ❖ Establishment of a Secretariat for MCS network.
- ❖ Development of handbook/manual for inspectors of Port State (Regional, Eng-Bahasa-TH).
- ❖ Regular Joint Meeting among patrol officers.
- ❖ HRD program for MCS training in MCS advance country.

Timeline

- ❖ Short and Medium term

Responsible agencies

- ⊙ Customs, Immigration, Fisheries officials.
- ⊙ Indonesia: Directorate of Resources Surveillance, MMAF and community surveillance group (voluntary).
- ⊙ Malaysia: Resource Protection Division, DOF.
- ⊙ Thailand: Marine Fishery Patrol of DOF work with Marine official and Navy

GROUP 3
STRENGTHENING COOPERATION OF THE VESSEL REGISTRATION
SYSTEM, VESSEL RECORD AND INVENTORY

A. Vessel Registration System

1. Inadequate of sharing data and information between related agencies concerning data of fishing vessel registration

- ❖ Enhance database system for improvement the database information on vessel registration/ licensing in national level (on-going)
- ❖ Strengthen cooperation on sharing data and information of fishing vessel registration among countries in the Southern Andaman Sea
- ❖ Enhance on sharing and exchanging information for improving database system among agencies concerned

2. Different agencies to responsible on the vessel registration (More than 1 agencies conduct in vessel registration)

- ❖ Strengthening cooperation among agencies concerned on vessel registration
 - ⊙ Indonesia: MMAF, Ministry of Transportation, Local Provincial Office
 - ⊙ Malaysia: DOF
 - ⊙ Thailand: DOF and Marine Department

3. Inadequate data completion for small-scale fishing vessel registration (Some Countries)

- ❖ Create incentive to fishing boat owner such as subsidization (fuel supply, cash incentive during economic crisis and national disaster)

4. Inadequate of regulation awareness and importance knowledge information on vessel registration between stakeholder and related agencies

- ❖ Promotion and dissemination information via public relation media
- ❖ Delivery information to fishermen for encourage knowledge on vessel registration

5. Inadequate network to coordinate on vessel registration in the South Andaman Sea Countries

- ❖ Establish national focal point to coordinate and facilitate on vessel registration in Southern Andaman Sea Countries

6. Weak/ less penalty enforcement

- ❖ Strict and awareness building penalty enforcement.
- ❖ Reminder for continue vessel registration and licensing.

7. Inadequate of manpower and budget to execute law or regulation enforcement

- ❖ Encourage fisher folk to coordinate with authority by dissemination information via public media.

8. Ineffective database system

- ❖ Improvement of database system in national level

9. Double flag fishing boat

- ❖ To sell boat to other country, recommended that owner or fisher should be get the approval document from authorize agency (MD)
- ❖ Promote system of selling boat approval document before transferring flag.

B. Vessel Record and Inventory

1. No exact number of fishing vessel record and inventory

- ❖ Promotion search program.
- ❖ Dissemination program on encouraging fishermen to register their vessels.

2. Giving false information on vessel registration by the fishermen

- ❖ Strict to inspect boats registration and regulation.

C. Standard format to share information

Items	Indonesia	Malaysia	Thailand
1.Registration number	/	/	/
2.Name of vessel	/	No have	/
3. Port of registration	/	/	/
4. Name of owner	/	/	/
5. Address of owner	No have	/	/
6. Place of built/ buy	/	/	/ (only in large scale)
7. Date/ year of built	/	/	/
8. Kind of Vessel (inboard/outboard)	No have	/	No have
9. Type of Material (wooden, steel, fiberglass)	/	/	/
10. Fishing method/ gear type Thailand - gear license	/	/	/ (under DOF)
Size of vessel			
11. Length	/	/	/
12. Breadth/ Width	/	/	/
13. Depth	/	/	/
14. Gross tonnage	/	/	/

15. Net tonnage	/	/	/
16. Fish storage capacity	/(Unit: m ³)	No have	No have
Energy consumption			
17. Source of power (fuel, wind, manpower)	Brand of engine	Brand of engine	Brand of engine
18. Power of engines	HP	HP	Kilowatt
Other entries			
19. Nationality of flag	/	/	/
20. Number of crews	No	/	/
21. Former vessel name	/	No have	/
22. Former vessel owner	/	/	/
23. Former nationality flag	/	/	/