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**Report of the Sub-regional Consultative Meeting on the Collaborative Fisheries  
Management around the North Andaman Sea/Myeik Archipelago**

**Phuket, Thailand**

**27-28 May 2014**



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**Southeast Asian Fisheries of Development Center**

**The Secretariat**

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# Report of the Sub-regional Consultative Meeting on the Collaborative Fisheries Management around the North Andaman Sea/Myeik Archipelago

Phuket, Thailand, 27-28 May 2014

## I. Introduction

1. The Sub-Regional Consultative Meeting on the Collaborative Fisheries Management around the North Andaman Sea/Myeik Archipelago was co-organized by the Southeast Asian Fisheries Development Center (SEAFDEC) with financial support from the Government of Sweden and the Bay of Bengal Large Marine Ecosystem (BOBLME) Project, from 27 to 28 May, 2014 in Phuket, Thailand. The main objectives of the event were: 1) to confirm the so called working model for a collaborative management structure which had been initiated by the CORIN-Asia (through the support of the BOBLME project), 2) to review progress and results of actions being implemented by BOBLME, SEAFDEC, contracted partners and/or member countries and 3) to discuss priority areas and an initial set of collaborative (thematic) working groups including: Trans-boundary and migratory species (*Rastrelliger* spp, neritic tunas), habitats and protected areas, port monitoring and landing across boundaries (including aspects of necessary documentation), catch documentation, product certificates, MCS networks, and/or other similar matters.

2. The Meeting was attended by the officers from central and provincial governments of Myanmar and Thailand as well as representatives from collaboration organizations namely: Bay of Bengal Large Marine Ecosystem (BOBLME) Project, Asian Coastal Resource Institute Foundation (CORIN-Asia), International Union for Conservation of Nature (IUCN) and the Prince of Songkla University (PSU). The officials from SEAFDEC/Secretariat, SEAFDEC/Training Department (TD), SEAFDEC/MFRDMD and Regional Fisheries Policy Network (RFPN) members also attended the Meeting. The list of participants is shown in **Annex 1**.

3. The Secretary-General of SEAFDEC, *Dr. Chumnarn Pongsri* welcomed all participants and acknowledged the presence of both countries attending the Meeting in order to finalize a collaborative workplan for both countries. He expressed his concerns about key issues such as IUU fishing, trans-boundary migratory species and the need to develop fisheries habitat management system. He hoped that these issues would be finally addressed during the Meeting through the development of sub-regional management approaches and strategies for the North Andaman Sea/Myeik Archipelago. Finally, he encouraged all participants to actively participate during the discussions by sharing their information and experiences in order to meet the common objectives of the Meeting. The Opening speech attached as **Annex 2**.

4. The head of delegates from Myanmar, *Mr. Myo Aung*, Director, Department of Fisheries (DOF), expressed his gratitude for having a chance to participate and thanked all the participants and organizers of the Meeting. He emphasized that a systematic rehabilitation of mangrove forests would urge the two countries to jointly set up long-term targets for the development of mangrove forests. Also, he pointed out that it is important that several projects/initiatives help the two countries to increase their awareness and understanding of the important role of trans-boundary fish species. Myanmar warmly welcomed concrete initiatives for collaboration between the BOBLME

and other institutions on the protection of the marine environment, the promotion of sustainable fisheries development and in particular cooperation in the implementation of efforts to the elimination of IUU fishing.

5. The representative from Thailand, *Mr. Pirochana Saikliang* thanked the organizer SEAFDEC-Sweden for conducting the Meeting. He hoped for the two days meeting that the participants would share experiences and ideas to provide solutions to the underlying problems and issues in the region. He also expected that this Meeting between Thailand and Myanmar will encourage the countries to work together for better cooperation in the future.

## **II. Background, objectives of the Meeting and Adoption of the Agenda and Meeting Arrangement**

6. *Ms. Pattaratjit Kaewnuratchadasorn*, the SEAFDEC-Sweden Project Manager, firstly provided the background, information and the overall thrust of the five-year, SEAFDEC-Sweden project. She also presented the background and objectives of the Meeting. She reminded the participants that during the past few years the activities implemented by SEAFDEC, BOBLME project and other organizations to support Myanmar and Thailand, focused on the integration of fisheries and habitat management and the management of fishing capacity. This Meeting would again enable for relevant agencies and two countries to update the progress and follow-up on the activities and facilitate the bilateral cooperation between Myanmar and Thailand. The prospectus is shown in **Annex 3**.

7. The Meeting adopted the Agenda, which appears as **Annex 4**.

## **III. Review information from the previous meetings**

8. The representative from CORIN-Asia, *Ms. Rebeca Fontanilla Andong* gave a presentation on the results achieved during the First Meeting of the Myeik/Mergui Archipelago Trans-boundary Planning and Management Committee that was convened on 14 March 2012. The Meeting was conducted in parallel to the Sub-regional Consultative Meeting of the Northern Andaman Sea that between 13 and 14 March 2012. She briefed on the collaborative management structure that was composed of an Executive Committee, a Technical Advisory Group, a Planning and Management Committee and Working Groups for various activities. The set-up of working groups will be decided by the Planning and Management Committee. The Committee will also indicate the composition and responsibilities of each of the Working Groups. She also recalled the prioritized activities that were agreed during the previous meeting and hoped that the committee would be able to move forward to more practical actions. Her presentation appears in **Annex 5**.

9. *Ms. Pattaratjit Kaewnuratchadasorn*, gave a review of the Sub-regional Consultative Meeting of the Northern Andaman Sea that was held from 13 to 14 March 2012 (**Annex 6**). She informed specifically on the activities that were conducted during the meeting. The participants were divided into four (4) thematic groups i.e. critical habitat management; management responses to cooperation on trans-boundary and migratory of fish stock; management of fishing capacity; and port monitoring and landing across boundaries. She highlighted the identified gaps, recommendations and activities that were proposed by each of the groups during the previous meeting. Meanwhile, the



Meeting was also updated on the status of implementation of projects related to catch documentation, port monitoring and trans-boundary landings and well as on capacity-building, awareness-raising and the strengthening of local capacity and local involvement in planning and management in terms of habitats/fisheries management and socio-cultural/economic monitoring. At the end of the presentation, the Meeting was invited to consider the recommendations from the previous meetings for further discussion during the group break out session in Agenda 7.

10. A review was provided by the recommendations made during the 2<sup>nd</sup> Meeting of the Andaman Sub-Region conducted on 28-29 August 2012. The 2<sup>nd</sup> Meeting was attended by representatives from four countries namely: Indonesia, Malaysia, Myanmar and Thailand. The Meeting was trying to address issues related to integration of fisheries and habitat management; conservation measures for important migratory species (mackerel species); and the management of fishing capacity as well as IUU fisheries in the region. Some of the key recommendations that the four (4) countries need to address to provide resolutions for the Andaman Sea Sub-Region were highlighted. After the presentation *Ms. Pattaratjit Kaewnuratchadasorn* suggested that these recommendations should be further discussed and considered during group discussions for the preparation of the future work/action plan. See **Annex 7** for the list of recommendations.

11. *Dr. Rudolf Hermes*, Chief Technical Advisor of the BOBLME project provided an overview of BOBLME related activities in Myanmar and Thailand. He informed on important activities that had been conducted by the BOBLME project including the conduct of assessments, reviews and capacity development as well as an ecosystem survey using the research Dr. Fridtjof Nansen. He described in more detail the ecosystem survey that was carried out. The survey extended along the full length of the Myanmar coastline and across the Myanmar EEZ up to 500 meters depth in surveyed areas. Survey results were provided in three (3) regional zones namely: the Rakhine coast, the coastal area of the Delta and the Tanintharyi coast. Different tools were used, such as acoustic survey, oceanography, survey of conductivity temperature and density, plankton (biology) surveys and bottom and midwater trawl to assess the resource status. Overall, results indicate a strong decrease in catch rates and much lower estimates in pelagic and demersal fish biomass compared to earlier surveys. He mentioned that the ecosystem characterization that will be generated from the survey is still “work in progress”. BOBLME will have a second workshop on ecosystem characterization in India in August/September 2014 and another joint workshop for countries across the entire Bay of Bengal after the India workshop. Capacity development work on seagrass assessment and conservation, as well as monitoring of socio-economic information (SocMon) was implemented in partnership with Fauna and Flora International, while other ecological assessment work leading towards improved MPA management was undertaken in collaboration with IUCN. This work also supports the establishment of a National Coordination Body in Myanmar for Mangrove for the Future (MFF). Finally, he informed on the development of short MPA policy briefs that would aim to describe the MPAs and MPA functions in few words for policy makers and for the general public for both Myanmar and Thailand. The presentation is available at **Annex 8**.

12. In addition, he also introduced the Ecosystem Approach to Fisheries Management (EAFM) with focus on the development of the training course “Essential EAFM”. The approach is already familiar in parts of the regional and introduction has been made for SEAFDEC officials. The introductory course focuses on the capacity development of

professional planning, analytical and interpersonal skills needed for structured and more informed decision-making. See **Annex 9** for the detailed presentation.

#### **IV. Update on Integration of fisheries and habitat management and the importance of trans-boundary stocks and habitats**

13. The representative from the Department of Fisheries Myanmar, *Mr. Soe Win*, Deputy Fishery Officer presented the pelagic fisheries in Myanmar. The target species are consisting mainly of mackerels, hilsa shad, sardines and scads. He also provided some information with regards to the spawning ground, migration route and fishing season of hilsa shad and mackerels. The Meeting was also briefed on the conservation measures for trans-boundary stocks in Myeik Archipelago such as the tagging program for mackerels and some other important pelagic fish species that was carried out in collaboration with SEAFDEC. Furthermore, tissue sampling for stock identification was also conducted in 2011 and 2012. Finally, he pointed out some of the constraints faced by Myanmar in carrying out the conservation programs. He concluded that more support is needed in terms of knowledge, technical expertise, fund allocation and cooperation from regional and international agencies to successfully manage the fishery resources of Myanmar.

14. The Meeting noted that some of the activities, especially the tagging programs was stopped due to low recovery rate. The initiative than switched to genetic studies. However, the genetic studies required high end equipment and methodology which is costly. In this regard, the Meeting agreed that simple tools and manual techniques should be applied to conduct the population study which would be adequate for small geographical areas.

15. The representative from the Department of Fisheries Thailand, *Mr. Kumpon Loychuen* informed the Meeting on some of the important trans-boundary stocks abundant along the Andaman Sea Coast of Thailand, such as Indian Mackerel (*Rastrelliger kanagurta*). He also provided information on the biological aspects, the fishing grounds, landing ports as well as on the common fishing gear used to catch Indian mackerels. The data showed that the catch of Indian mackerel in the Andaman Sea had declined due to overfishing. He emphasized the importance of resource management by prohibiting the use of surrounding nets (mesh size less than 2.5cm) with light luring, restrictions with regards to zoning and timing, the need for management of fishing capacity as well as to increase monitoring, control and surveillance. Furthermore, he informed that Thailand also conducted genetic studies on stock structures of Indian Mackerel in the West Coast of Thailand by using the mitochondria DNA . The results showed that the stock structure could not be identified by using the method . However, the study was not completed due to lack of funding . The details of his presentation is included in **Annex 10**.

16. The Meeting was informed that the Indian mackerel stock structure in the Andaman Sea could not be identified using the mitochondrial DNA. A better method to use would be the nuclear DNA microsatellite method, but that technique is far more expensive. There was a suggestion to conduct basic research on DNA sequencing and marker identification for population study. In this connection, the Meeting agreed that basic research should be carried out by academicians and the results could be applied for further research on the ground.

17. The Meeting was informed that there is a law in Thailand that allows the prohibition of surrounding net with mesh size less than 2.5 cm. The provision was justified in that the mesh size is appropriate for species like sardines. However, it is difficult to establish and identify the appropriate mesh size for each species due to the mixed and multi-species characteristics in the Andaman Sea. In line with this, it would be more appropriate to apply a system of closed seasons. However, scientific information/evidence is needed in order to impose such kind of restrictions at the right time and place.

18. The Policy and Program Coordinator from SEAFDEC Secretariat, *Dr. Somboon Siriraksophon*, introduced the concept on “Regional cooperation for sustainable utilization of neritic tunas in Southeast Asia”, which is on-going activities by SEAFDEC (through SEAFDEC-Sweden project). He informed on the status of the exploitation of neritic tunas distributed in Southeast Asian waters, including the Andaman Sea and Malacca Strait. He pointed out that the areas of main concern are in the Southern Andaman Sea and Malacca Strait. The three main species caught was eastern little tuna (ELT), longtail tuna (LT) and frigate tuna (FT). While noting that the biggest tuna producers in the Andaman region were Indonesia, Malaysia and Thailand he mentioned that there are limited data from Myanmar.

19. He expressed the importance to improve for Regional Cooperation on Neritic tuna Fisheries Management in response to the directives given by Council Directors during the 45<sup>th</sup> SEAFDEC Council Meeting. The directives including request to develop a regional plan of action (RPOA) focusing on neritic tuna. He informed the Meeting on identified priority issues and an outlined work plan for the developments of the RPOA-Neritic Tuna at national and regional level. The Meeting was informed that with financially support by Sweden, SEAFDEC will organize the Expert Group Meeting on Regional Plan of Action on Sustainable Utilization of Neritic Tuna Resources in the Southeast Asia Waters on 18-20 June 2014.

20. The Meeting took note of concerns raised with regards to stock assessments and data collection of neritic tunas. One important point is the need to have accurate information in particular on the fish identification of neritic tuna species. Moreover, the representative from Thailand informed the Meeting that the 4<sup>th</sup> IOTC Working Party on Neritic Tunas will be organized from 29 June to 2 July 2014 in Phuket, Thailand

21. The representative from IUCN/MMF, *Mr. Petch Manopawitr*, Deputy, Southeast Asia Group presented his research on “Building ecosystem resilience and fisheries refugia through the development of MPA networks in the Andaman Sea”. Mr. Petch recognized the effectiveness of MPAs in mitigating coral disease, preventing coral loss and as a means to restore marine resources and habitats highly affected as result of human activities and the effects of environmental phenomenon. He identified critical issues impacting on fish habitats (corals, seagrass and mangroves) and nesting grounds for sea turtle. Protection of endangered species (dugong and sea turtle) should be strengthened. In his presentation he observed that during year 2010 there was a severe coral bleaching of about 30-90% corals bleached across the region. To allow the corals to recover access to coral areas for tourism and recreational activities were regulated. However, after 2 and 3 years photo survey results shows a very promising recovery of corals in some areas. He recommended that there is an urgent need for trans-boundary conservation and management with Myanmar to protect Thailand’s coral MPAs. His presentation is shown in **Annex 11**.

22. *Dr. Panwad Wongthong*, Coastal and Marine Consultant, IUCN, briefed the Meeting on what IUCN had been doing, including consultations with government agencies, NGOs, universities, and different stakeholders' participation, in order to come up with a situational analysis of the current state of marine protected areas in Myeik Archipelago. She explained briefly that the MPAs in Andaman Sea are valuable to the resource users by providing a variety of goods and benefits to both of countries in the Northern Andaman region. Furthermore, she informed on the status of sharks within the proposed marine shark management areas. In 2004 there were 24 species of sharks in the area while only two (2) shark species were found in a recent survey. This is very alarming and calls for strict conservation measures to ensure the survival of remaining sharks. To support conservation measures of endangered species she stressed the need to give more emphasis to combating illegal (IUU) and destructive fishing, to regulate tourism development, to fisheries and habitat management measures, to improve awareness to generate acceptance (of conservations measures) of the local people and to address capacity limitations within the (local) fisheries agency. Furthermore, she informed that 16 development projects had been chosen for Myeik Archipelago that could threaten conservation efforts including two proposed project sites that included areas for turtle nesting at sea shores. Finally, she made a general recommendation to look into the need to protect and restore critical marine habitats and important fishing grounds in efforts to maintain food security and sustainable livelihoods, to manage MPAs, to implement regulations and management measures, and to engage the tourist industry in a sustainable tourism approach. Her presentation appears as **Annex 12**.

23. *Dr. James True*, Lecturer, at the Prince of Songkla University presented the "Preliminary data survey cruises in the Myeik Archipelago", based on involvement on the ecological assessment by SCUBA surveys of fringing reefs in the Southern part of the Archipelago conducted February and March 2014. The survey was supported by IUCN/BOBLME and Fauna and Flora International (FFI). He informed on the design of the survey routes within the exploration area. The assessments involved sites that have high public accessibility included loops of high biodiversity and high biomass as well as areas used as recreational diving sites. He pointed out that the coral health indicators showed that many reefs were under pressure because of natural phenomenon (climate change) and unfavorable fishing activities. However, in other areas there were evidence of recovery and diverse and healthy coral reefs were found in shallow waters and protected areas. Lastly he concluded that, in his initial observation on replenishment patterns in the Andaman Sea he found that these patterns appear to be correlated to surface currents generated by the Andaman Gyre and the Indonesian through-flow. The recovery of corals is promising around the Myeik Archipelago. His presentation appears as **Annex 13**.

#### **V. Country update on Promotion of more effective management of fishing capacity and to reduce illegal and destructive (combat IUU) fishing in the North Andaman Sea**

24. The representative from Myanmar, *Mr. Myint Shwe*, Assistant Director, Department of Fisheries, Tanintharyi Region, gave an update on the status of capture fisheries operating in the offshore area of the region. Fishing operations are based on six types of fishing practices involving a total of 1,268 fishing vessels only in Tanintharyi Region. He informed the Meeting that the port monitoring system in the region included activities undertaken by a range of fisheries and enforcement agencies such as the DOF,

Immigration Police, Port Authority, Custom, and Police Force. The monitoring and control activities performed include the following: fishing vessel and gear inspection (in and out), provision of sailing order, fishermen on-board checklist, fish catch monitoring/control, actual on-board inspection at sea and special inspections of fish and fishery products to be exported to other countries.

25. Export related documentation such as catch documentation (with information on species, volume, origin and status), product trade movement document that should follow the product from the port and throughout the supply chain (export and locally consumed products) and the process to issue catch certificate had been discussed thoroughly in the Tanintharyi Region. He also informed the participants on other relevant management systems implemented in the Region, such as environmental management, management measures for fisheries operations, conservation measures for sharks, marine fisheries research and mangrove forest conservation schemes.

26. *Mr. Myint Shwe* explained further that effort to develop MCS networks in the Andaman Sea Sub-Region involving four countries (Indonesia, Malaysia, Myanmar and Thailand) had been hampered by many constraints in the implementation, including lack of financial support, difficulty in accessing remote area and limited inter-agency cooperation. He concluded that for coordinated efforts to be successful the involved partners need to consider that, a) strategies and principles of marine fisheries management may not be similar between countries in terms of climatic conditions, culture and national policies, b) marine fishery resource conservation needs to be followed up with the implementation of closed area, closed season and restriction in the use of fishing gear and regulations on mesh sizes, c) there is a need to establish an efficient MCS system for effective control of fishing capacity and to combat IUU fishing, and d) collaboration and cooperation of adjacent coastal nations would be most effective in combating IUU fishing. His presentation is shown in **Annex 14**.

27. The representative from Thailand, *Mr. Pirochana Saikliang*, Senior Expert on Marine Fisheries, Department of Fisheries presented his country update on the effective management of fishing capacity and the efforts to reduce illegal and destructive fishing in Andaman Sea. He informed that for the establishment of MCS networks in the Andaman Sea Thailand must base that on the Thai Fisheries Act of 1947. This is not very effective as the law is obsolete and was mainly developed to regulate freshwater fisheries with limited references to marine fisheries. Furthermore, registration of fishing vessels is done by the Marine Department while DOF issue licenses for fishing gear. Enhancing the capabilities of fishery inspection officers of DOF had been included in the department's capacity-building programs. He also mentioned that the DOF actively supports efforts to strengthen regional/international cooperation through organizations such as FAO, IOTC, SEAFDEC, BOBLME, etc.

28. With regards to monitoring at fishing ports (port monitoring) he informed the Meeting that inspections of vessel safety was the mandate of the Marine Department (that also register fishing vessels) while inspections at ports of fishing gear, species and amount of caught as well as the control of CITES-listed species, is under the jurisdiction of the DOF. As a mean to follow-up on the catches and landings he briefed the Meeting on the simple catch documentation scheme that was implemented by the DOF. The scheme is based on a logbook system that contains important data on the kind of fishing gear that has been used, the type and amount of species that has been caught and the location of the fishing ground. Prior to issuing a product certification, the DOF will

inspect the product sample to check its quality after which a health/quality certificate can be provided to inform the importing country on the safe quality of the Thai product. His presentation is shown in **Annex 15**.

29. As input to the discussion, *Ms. Jenny Nord*, Results Monitoring Expert from the SEAFDEC Secretariat gave a presentation on the Catch Reporting and Fisheries Enforcement in Trans-boundary Areas of the EU (**Annex 16**). Her presentation included a background of EU fisheries laws and regulations including the Common Fisheries Policy as well as on regulations to control fisheries activity within the EU. The Meeting was informed that only marine capture fisheries are included in the EU policy and that the inland fisheries falls under the national policy of each EU member states. She also informed that a system for catch reporting in trans boundary areas exists within the EU. Within this system provisions to submit catch documentations (logbooks) to both the port and flag state when landings are made in foreign ports, are implemented. Meanwhile, the control and enforcement in trans-boundary areas includes the inspection at shore/landing site, at-sea surveillance and inspections at marketing places. She also added that in order to improve the monitoring system, collaboration on these issues between the countries at various level is needed. The Meeting was also informed that within the EU the implementation of law enforcement is a national responsibility that is mostly covered by national funds. However, certain parts of the national enforcement costs can be covered by EU funds.

## **VI. Enhancing communities' resilience and capacity to adapt to change**

30. *Mr. Sompoch Nimsantijareon* shared his experiences working with the local fisheries communities, especially those involved in small scale fisheries. He highlighted some issues that are affecting the fisheries and availability of fish such as destructive fishing, over fishing, tourism and coral bleaching. Following the depletion of fisheries resources the community had initiated resource recovery activities i.e. mangrove restoration, coral plantation, sea grass plantation, fish release, artificial reef deployment, etc. In this regard, DOF Thailand and local authorities supported the local community in the Ranong area to help them set up the crab bank program together with the declaration of protected areas for crab. While noting that data collection, information sharing, networking and cooperation among communities and authorities are crucial, monetary support from the government and private sector participations are also essential in order to undertake the activities for better resource management. He provided information on a range community activity in various districts in Ranong province. The detail of his presentation appears in **Annex 17**.

## **VII. Second Meeting of the Planning and Management Committee for the Myeik Archipelago between Myanmar and Thailand**

31. The 2<sup>nd</sup> Meeting of the Planning and Management Committee for transboundary management between Myanmar and Thailand was conducted and attended by three representatives from each country. The Meeting was facilitated by *Ms. Rebeca Andong* (CORIN-Asia), *Dr. Magnus Torell* (SEAFDEC) and *Dr. Rudolf Hermes* (BOBLME). The objective of this Meeting was to finalize the structure and composition of the Planning and Management Committee for the North Andaman Sea/Myeik Archipelago. During the Meeting each of the countries provided indications on the range of institutions to be involved in the Committee. Suggested Committee, including members, should later be

confirmed, identified and/or indicated by higher level officials. The output of the discussion is attached in **Annex 18**.

### **VIII. Discussion on the collaborative Action Plan/Activities**

32. After the presentation and inputs from countries and organizations, the participants were divided into groups by country. The groups were tasked to brainstorm and discuss on basic requirements to be considered as inputs to the preparation of a prioritized plan for collaborative actions involving the two countries. The discussions focused on two main topics namely; a) the integration of fisheries and habitat management and the management of trans-boundary stocks and habitats, and b) promotion of more effective management of fishing capacity and to reduce illegal and destructive (combat IUU) fishing in the North Andaman Sea/Myeik Archipelago. The consolidated outputs of both countries were presented and discussed among the participants and finalized as both sides agreed on common activities to be conducted. Based on the agreed activities they could come up with a detailed priority action plan to be implemented in the near future. The work plan matrix is attached as **Annex 19**.

### **IX. Establishment of the Working Groups (WG) and mechanisms to share experiences**

33. The Meeting took note of the proposed strengthening of the Planning and Management Committee together the establishment of thematic Working Groups which would include concerned agencies and organizations of each country. However, the formalized Planning and Management Committee and working groups should be endorsed together with the appointment of Committee members by higher levels within the fisheries administration of the two countries.

### **X. Conclusion and way forward for Sub-Regional and bilateral cooperation in fisheries and habitat management including efforts to combat illegal and destructive (IUU) fishing around North Andaman Sea and Myeik Archipelago**

34. The Meeting agreed on the framework and work plan developed during the Meeting and the countries confirmed their ambition to continue the discussion and cooperation on habitat management, trans-boundary fish stocks and management of fishing capacity, including port monitoring with a focus on the Northern Andaman Sea and Myeik Archipelago, in order to strengthen the collaborative arrangement between Myanmar and Thailand.

35. The Meeting suggested that the Report of the Meeting, including annexes and work plan, should be submitted to higher level officers within the fisheries administration of Myanmar and Thailand through the National Focal Points for BOBLME Project. The Focal Points would follow-up within the administration to seek confirmation of committee member/s to be officially designated to perform the indicated roles and functions of the Planning and Management Committee.

### **XI. Closing of the Meeting**

36. *Dr. Rudolf Hermes*, stressed the importance of bilateral cooperation as a means to address cross-cutting issues in trans-boundary areas since it is much more effective than

going alone in a national way. He noted that the work plan have a focus on capacity-development and knowledge-management with regards to fish, corals, and sea-grass. These points are important highlights of priority aspects in the work plan. He disclosed that the countries are not alone in implementing suggested activities, but there is a range of supporting partners around such as SEAFDEC, BOBLME, CORIN-Asia, IUCN, GEF, etc. Although, the group has developed an ambitious work-plan it is still doable and worthwhile to carry out. Lastly, he expressed his gratitude that BOBLME is still associated to this initiative as they have been since 2009. BOBLME is happy work hand in hand with the partners attending this meeting with an aim move towards sustainability of marine fishery resources.

37. *Dr. Magnus Torell*, on behalf of the Secretary-General of SEAFDEC thanked all participants for their active participation and for sharing their ideas during the Meeting. He then declared the Meeting closed.



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## Opening Remarks

*By Dr. Chumnarn Pongsri, SEAFDEC Secretary-General*

Distinguished delegates from Myanmar and Thailand, my colleague from the Bay of Bengal Large Marine Ecosystem (BOBLME) Project, Dr. Rudolf Hermes, representatives from organizations, academic, colleagues from SEAFDEC, Members of the Regional Fisheries Policy Network, Ladies and Gentlemen, a very good morning,

I am very pleased to be here once again with you all for this Sub-regional Consultative Meeting on the Collaborative Fisheries Management around the North Andaman Sea and Myeik Archipelago, which is co-hosted by SEAFDEC with financially supported by the Government of Sweden in collaboration with the BOBLME Project. I would like to express my sincere thanks to all of you for sparing your valuable time for joining us today.

Many of you may recall that during the past few years, both the SEAFDEC-Sweden project and the BOBLME project partnership continuously support their Member Countries in the process of managing their fisheries resources and its ecosystem, building up consensus and general understanding of mutual interest among countries around the Andaman Sea, Myeik Archipelago and extend to the Bay of Bengal.

Going back to the previous outputs of the meeting, there were numbers of challenges includes the trans-boundary concerns such as fisheries and habitat management, fish migration, fishing capacity, encroachment of vessels, vessel registration, and landing across boundaries between neighbouring countries has been repeatedly to addressed within these sub-region. It is not surprised that many of our fish species are found migrating from one neighboring countries to another, as a result, the management of trans-boundary fisheries resources is needed to be considered in the cooperative manners between neighboring countries. Through sub-regional management approaches and strategies, a process has been facilitated by the SEAFDEC-Sweden Project in cooperation with the BOBLME project and other partners to promote and build-up a management system for trans-boundary fisheries resources and related concerned for the Andaman Sea region, with a focus on sub-regional arrangements for Southern Andaman Sea (Indonesia, Malaysia and Thailand) and Northern Andaman Sea (Myanmar and Thailand), respectively.

With the effort to strengthen the bilateral cooperation between two (2) countries and support from organizations, today, it is a good opportunity to facilitate Thailand and Myanmar to confirm their dedication on collaborative works for the effective fisheries management around North Andaman Sea/Myeik Archipelago. I encourage everyone to share your information's and experiences on what had been done so far, and what would be the next step for both countries and partner agencies to step and move forward for achieving the aim goals for the sustainability of the resources in this sub-region.

Ladies and Gentlemen,

Even though time is limited, I hope we could meet our objectives in this meeting and I encourage everyone to try your best to participate and come up a fruitful and meaningful discussion to continue the unfinished work for this sub-region that can lead to substantial changes in the management of habitats and resources.

Lastly, on behalf of the organizers, thank you for coming. Wish you all the best. I look forward a very successful Meeting. Without further ado, I now therefore declare that this Sub-regional Consultative Meeting on the Collaborative Fisheries Management around the North Andaman Sea/Myeik Archipelago open.

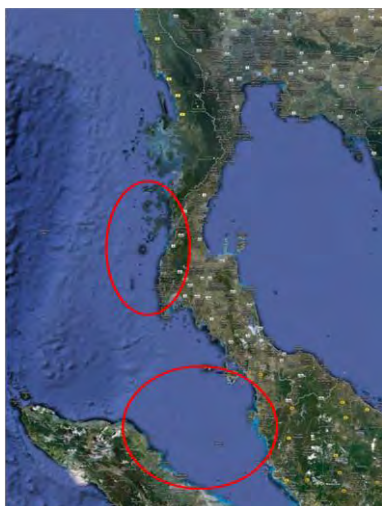
Thank you once again and good day.

## Annex 3

### PROVISIONAL PROSPECTUS

#### I. BACKGROUND

Since 2009, SEAFDEC together with the Bay of Bengal Large Marine Ecosystem (BOBLME) project has been working with countries in and around the Andaman Sea in promotion of efforts to safeguard the sustainable utilization of the marine and coastal resources for the benefit of people living in coastal areas around the Andaman Sea. The promotion of an Ecosystem Approach to Fisheries Management (EAFM) through the integration of habitat and fisheries management provides a sound basis for joint efforts to work towards the sustainability of fisheries and the conservation of important habitats.



In the process, a focus should be given to key issues of regional and trans-boundary concern such as fisheries/habitat management, fish migration, fishing capacity, encroachment of larger vessels in coastal waters, IUU fisheries, vessel registration, landing across boundaries, among others, thus building upon opportunities to implement an EAFM.

In moving towards suitable management actions for the Andaman Sea Sub-region, a sequence of consultations/events to build up consensus and general understanding among countries around the Andaman Sea by SEAFDEC and BOBLME project during 2009-2012. The options were explored to lay the foundation for the introduction of larger fisheries resources management and conservation areas around the Andaman Sea as well as promoting collaboration among agencies and organizations working on fisheries, environmental protection and marine and coastal resources management around the Andaman Sea. During the Andaman Sea Meetings it was shown and recognized that - *due to migratory movements of important fish species, due to interconnectivity and links among important habitats and due to oceanographic patterns* - the (eastern) Andaman Sea feature two distinct loops, one from Phuket down into Malacca Straits (Indonesia, Malaysia and Thailand) and the other from Phuket into the waters of Myanmar (Thailand and Myanmar, including the Myeik and Surin Archipelago/Islands). The events highlighted the importance of improved monitoring of spawning season, migration patterns of the trans-boundary and (highly) migratory fish species such as *Rastrelliger* spp. and related species.

To move forward with the process to promote the build-up of management arrangements for the Andaman Sea region, recommendations was made by countries in the region to give attention to the respective sub-regions within the Andaman Sea, Subsequently, events have been organized with a focus on sub-regional arrangements for Southern Andaman Sea (Indonesia, Malaysia and Thailand) and Northern Andaman Sea (Myanmar and Thailand), respectively.

#### **Preceding events (2009 to 2012) for the strengthening of sub-regional cooperation in the Northern Andaman Sea**

In follow up to recommendations from earlier Andaman Sea Sub-regional Meetings (2009 and 2012) a sequence of events has been organized with a focus on the promotion of joint arrangements between Myanmar and Thailand in the Northern Andaman Sea.

The first set of meetings was initiated by the BOBLME project and organized by CORIN-Asia to discuss and consult about joint approaches to management of important habitats in and trans-boundary waters of Myanmar and Thailand with an aim to explore options for a management plan for the Myeik Archipelago and related water bodies. The sequence of events led by CORIN-Asia included:

- Ranong, 13-14 July 2010 (on-site)
- Yangon, 11-12 October 2010 (on-site)
- Phuket, 18-19 January 2011 (sub-regional)

The second set of events was initiated by SEAFDEC-Sweden Project and developed in cooperation with



BOBLME. So far two on-site workshops, two training session (Ranong and Myeik) have been held on the Integration of Fisheries and Habitat Management, Species Identification and the Management of Fishing Capacity, namely:

- Myeik, Myanmar (3-5 March 2011), (on-site)
- Ranong, Thailand (26-27 July 2011) (on-site)
- Ranong (species identification 2012) (on-site)
- Myeik (species identification 2012) (on-site)
- Bangkok, (12-14 March 2012) (sub-regional)

During the January 2011 meeting in Phuket a framework for a collaborative management structure started to emerge (facilitated by CORIN-Asia) and based on discussions with Myanmar and Thailand, respectively a “working model” has been defined that includes an executive committee, a planning and management committee and a technical advisory group as well as a number of collaborative working groups.

The Sub-regional Consultative Workshop of the Northern Andaman Sea (Mergui Archipelago) in Bangkok, Thailand (13 – 14 March 2012) was co-organized by the Southeast Asian Fisheries Development Center (SEAFDEC), with financial support by the Swedish International Development Cooperation Agency (Sida) through SEAFDEC-Sweden Project, the Bay of Bengal Large Marine Ecosystem (BOBLME) Project, and the Asian Coastal Resources Institute Foundation (CORIN-Asia).

The objectives of the Workshop were to develop a platform for agreements between Myanmar and Thailand on joint approaches to the management of habitat and fisheries, to improve the dialogue among key institutions involved; and to provide an opportunity for a group of “legal advisors” to get feedback on the scope, purpose and context of existing and planned legal and regulatory framework as basis for agreements.

The meeting had a “dual structure” in that parallel sessions would be organized to follow up on:

- A) The “working model” of a collaborative management structure (for the Myeik Archipelago) that was starting to emerge during the January 2011 meeting in Phuket (facilitated by CORIN-Asia) and based on discussions with Myanmar and Thailand, respectively a “working model”
- B) Four thematic areas to be the focus of group discussions, namely:
  - a. Critical habitat management (seagrass, mangrove, others);
  - b. Management responses to cooperation on trans-boundary and migratory fish stock (*Rastrelliger spp.*);
  - c. Management of fishing capacity (vessel record, MCS); and
  - d. Port monitoring and landings across boundaries.

To move ahead in making elements of the *working model* “operational”, primary focus was given to the **Planning and Management Committee** and the **Activity Teams** (or working groups) and the first meeting of the Planning and Management Committee was held on the 14 March 2012 during the Sub-regional Consultative Meeting of the Northern Andaman Sea organized in Bangkok 13-14 March 2012. The first meeting of the Committee had representatives drawn from meeting participants to sub-regional consultative meeting with an aim to start collaboration and to promote cooperation with SEAFDEC, IUCN and other regional programs working in the same region.

The following list of people from Myanmar and Thailand (drawn from Sub-regional Consultative Meeting Myanmar/Thai representatives) participated in **the first meeting of the Planning and Management Committee** for the Myeik Archipelago:

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It was also indicated that there was a need to further clarify or more clearly define the geographic scope of the collaboration. Determining the precise geographic area of the collaboration was seen as an important task during the first stages of the cooperation and joint action. Four activities were prioritized by the first Planning and Management Committee for an initial period of collaboration that also should focus on formalizing the operation the collaborative management structure (the Planning and Management Committee), developing professional competency at the local level and undertaking resource assessments and consultations to prepare for further activities relating to improved livelihood interventions and information sharing. The prioritized activities or areas for action included:

- Formalize Planning and Management Committee
- Sea-grass and coral training
- Catch certificate workshop
- Sea-grass and coral resource assessment

#### **Summary of continued actions priority matters since the March 2012 meeting on the Northern Andaman Sea**

The activities, as indicated during the March 2012 meeting has been further developed in dialogue with partners, and as appropriate/practical, also including all the four countries of the eastern Andaman Sea – Malaysia, Indonesia, Myanmar and Thailand and in cases India through the cooperation with the BOBLME.

A short indication of actions and events of relevance to the four thematic areas since March 2012, include:

- **Trans-boundary/migratory stocks**
  - *Rastrelliger spp*
    - a) Bay of Bengal working group on mackerels (Indian Mackerel) is established (with support through the BOBLME)
    - b) Two training events (Ranong and Myeik in 2012) for species identification organized for DOF staff in Myanmar and Thailand (by DOF Thailand and SEAFDEC)
  - Neritic tunas (longtail tuna/tonggol)
    - a) BOBLME has in cooperation with DOF Malaysia and DOF Thailand embarked on a program on genetic stock structure (DNA) identification, that includes samples taken from Myanmar
    - b) SEAFDEC has initiated a process to develop a regional plan of action for the management of neritic tuna in Southeast Asia. Following recommendations for a consultation in Songkla (October 2013) that will include the whole supply chain including capacity-building, stock assessment, catches, landings, processing and trade. Sub-regional approaches, including the Andaman Sea, will be part of the follow-on actions. An Andaman neritic tuna working group to be established before the end of 2013
- **Habitats**
  - Sea-grass

- a) The seagrass conservation training was held 26 April to 3 May 2013 at Mawlamyine University and in the field (facilitated by Palawan State University (PaSU) and FFI (Flora and Fauna International), Supported through the BOBLME
  - Corals
  - Indications provided by BOBLME that they will support training on coral assessments – Mangroves
- a) Indications provided by SEAFDEC-Sweden that they will support efforts towards improved management of mangroves, including restoration and conservation in identified areas -
- **Catch documentation/catch certificates**
  - In March 2012, it was decided to “*organize a workshop to share experiences on catch certificates issuing and processing and develop a joint plan of action for developing a complementary system at the local level in each country*” –
  - The second Andaman Sea Meeting (August 2012) recommended that there is a need to “*strengthen capacity of personnel groups in fishing ports to be improve port management and to be able to handle more detailed taxonomic identification, specifications and different types of gears/vessels, etc. and specific aspects related to quality, health and environmental standard*” –
  - SEAFDEC and member countries are working together to try to develop an ASEAN Catch Certification Scheme
- **Port monitoring and trans-boundary landings**
  - The second Andaman Sea Meeting (August 2012) recommended that there is a need to “*establish working group(s) on the development of monitoring functions and routines in ports and landing sites, including capacity-building (ensure that partners/institutions with responsibility for port management and port inspections are involved)*”
  - Information (October 2013) by FAO is that they have developed a manual, or module, for training of port inspectors
- **Capacity-building, awareness-raising and a strengthening of local capacity and involvement in planning and management in terms of habitats/fisheries management and socio-cultural/economic monitoring**
  - a) SocMon: SocMon training will be organized through Mawlamyine University with partners (FFI and PaSU, contracted by BOBLME) to strengthen capacity on social, cultural and economic monitoring in coastal and MPA management, take place from 9 to 20 January 2014.
  - b) IUCN – BOBLME have entered into an LoA with IUCN Asia Regional Office on an “*improved information base and a functional network or coalition of government, non-governmental organizations and universities at local, national and international (bilateral) level addressing conservation an management of the Myeik Archipelago region*”
  - c) Traditional knowledge/strengthening local capacity/communities: Following the recommendations from the Second Andaman Sea Meeting (August 2012) SEAFDEC-Sweden has been contracting Prince of Songkla University (PSU) to “*record and document experiences and information on local indigenous groups of people (Sea gypsies, Moken, etc) together with socio-economic analysis on changes in the community caused by development, etc.*”
  - d) CORIN-Asia, Myanmar: Following-on to a meeting with the new DG of DOF, Myanmar, SEAFDEC has been having initial contacts with CORIN-Asia on their involvement is support of local capacity-building in Myanmar.

Seen that the continued effort to strengthen the cooperation between Myanmar and Thailand by building upon the momentum from the March 2012 event, the **Planning & Management Committee** could become an important factor in spearheading the coordination and management of overall activities with regards to the development of a trans-boundary management plan for the Archipelago. The Committee would facilitate consultations on the development of the trans-boundary Plan(s) with higher authorities in their respective countries.

## II. RATIONALE AND OBJECTIVES OF THE MEETING

The 2<sup>nd</sup> Meeting of the Planning and Management Committee for the Northern Andaman Sea and Myeik Archipelago is aimed to provide a venue to review and follow up on issues, recommendations and activity plans that were identified during the series of workshops and on-site trainings/events organized by

SEAFDEC-Sweden project and BOBLME project as summarised in the points referred to above on the outcome of the “sub-regional consultative workshop on the Northern Andaman Sea” 13 – 14 March 2012 and the first meeting of the Planning and Management Committee.



The common ambitions of Myanmar and Thailand, and with a focus on looking at options to move beyond planning and into action, are important requirements for the success of this joint meeting between Myanmar and Thailand on the management of habitats and fisheries of common trans-boundary interest.

### Map 2: Indicative map of the “larger Mergui/Myeik Archipelago”

The challenges ahead include the development of agreements for cooperation on fisheries and habitat management including options for joint approaches to the regulation of fisheries on *Rastrelliger spp*, hilsa, neritic tuna and related species including the opportunities to develop a management plan for the larger Myeik Archipelago region (see map 2 above). In these respects it is important for the two countries to establish the size and boundaries for areas to be managed and how to link the development of management plans to already established “management areas”. The area(s) could consist of a “core area” that could stretch from the Myeik Archipelago and into Thailand and the Surin Island group and a larger “fisheries resources management and conservation area” that could possibly expand as far as into waters north of Phuket (based on indicated migration path for *Rastrelliger spp* and related species) as seen in map 1 above.

Other matters of common concern are linked to the need to improve monitoring and agree on regulatory steps to be implemented by each of the countries including the need to manage fishing capacity, to combat and reduce IUU fisheries (illegal fishing, destructive fishing and encroachment by larger vessels into coastal waters), information sharing on vessel registration and fishing licenses, and port monitoring with a specific attention to the landings of catches across the border between Thailand and Myanmar.

The ambition to invite participants from different agencies is an attempt to improve the dialogue, not only between countries, but also between key institutions involved in matters such as providing licenses to fish, port monitoring and habitat management and others as considered relevant in support of local capacity-building and awareness-raising. The broader institutional presence will also provide an opportunity for a group of “legal advisors” to get feedback on the scope, purpose and context of existing and planned (under preparation) legal and regulatory framework as basis for agreements between the two countries.

In summary, SEAFDEC in cooperation with BOBLME will co-organize the Meeting aiming to further develop a platform for agreements between Myanmar and Thailand on joint approaches to the management of habitat and fisheries, including options for a management plan for the Myeik Archipelago and related water bodies. The process initiated by CORIN-Asia will provide an important part in the development of joint management plans based on the “working model” indicated above.

The Meeting has three main ambitions:

- 1) To verify and confirm the relevance and development of the “working model”, specifically with regards to the establishment of a **Planning and Management Committee**. Names of appointed persons (to be appointed) as well institutions to be involved in the Committee should be confirmed (based on the list of participants during the first meeting), identified and/or indicated.
- 2) To facilitate implementation of activities in priority areas an initial set of collaborative (thematic) working groups should be agreed upon/confirmed. Recommended areas include:
  - Trans-boundary and migratory species (*Rastrelliger spp*, *neritic tunas*)
  - Habitats and protected areas
  - Port monitoring and landing across boundaries (including aspects of necessary documentation), catch documentation, product certificates, MCS networks, and/or other similar matters.
- 3) To review progress and results of actions being implemented so far BOBLME, SEAFDEC, (contracted) partners and/or member countries since March 2012 with reference to earlier identified priority areas (as indicated above) with an aim to provide an option to synthesize and

agree on continued (and new) priority actions common to the two countries (with respect to this trans-boundary area).

### III. EXPECTED OUTPUTS

It is expected that by the end of the Meeting, the following items will be:

- a) A verification and confirmation of the “working model”, specifically with regards to the establishment of a Planning and Management Committee includes namelist of appointed persons (to be appointed) as well institutions to be involved in the Committee should be confirmed (based on the list of participants during the first meeting), identified and/or indicated. If possible one (or two) Committee Meetings could be held in conjunction with the Consultation.
- b) Sequence and organization of upcoming **Planning and Management Committee** meetings to be established.
- c) Agreement on the establishment of an initial set of collaborative (thematic) working groups. Recommended areas include:
  - Trans-boundary and migratory species (*Rastrelliger spp, neritic tunas*)
  - Habitats and protected areas
  - Port monitoring and landing across boundaries (including aspects of necessary documentation), catch documentation, product certificates, MCS networks, and/or other similar matters.
- d) Activity plans for 2014 developed and agreed upon for the implementation of activities in priority areas common to the two countries (with respect to this trans-boundary area) synthesized and agreed on, with time-lines and expected outcomes. *As/if available, work-plans of sub-contracted partners should be introduced and revised as recommended by participants. Additional partners in support of capacity-building and the facilitation of reaching bi-lateral agreements of relevance to the common objectives of two countries to be indicated and/or recommended.*
- e) An improved common understanding of the benefits of the EAFM, the integration of fisheries and habitat management and the importance to respond to effects of climate change as a basis for cooperation and potential areas for agreements at the sub- regional level between Myanmar and Thailand.

### IV. EXPECTED OUTCOMES

The outcome of the Meeting is an increased understanding of the issues/areas in which joint approaches are necessary for an effective management. In addition, the meeting is expected to facilitate for further and increased collaborations between the countries in technical context for improvement of fisheries management as a basis for cooperation and potential areas for agreements at the sub- regional level between Myanmar and Thailand.

## Annex 4

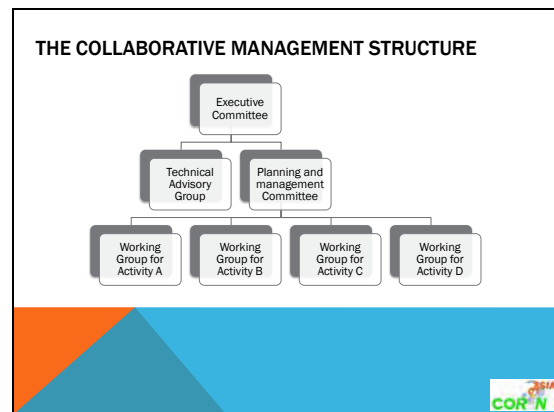
### Agenda

- Agenda 1:** Opening of the Meeting
- Agenda 2:** Background of the Meeting, objectives of the Meeting and Adoption of the Agenda and Meeting Arrangement
- Agenda 3:** Review information from the previous meetings
- 3.1 Review on the Implementation of the decisions from the first Planning and Management Committee Meeting and the second consultation on the northern Andaman Sea, 13 – 14 March 2012. Presentation by CORIN-Asia and SEAFDEC
- 3.2 Review of the Recommendations from the 2<sup>nd</sup> Meeting of the Andaman Sub-region, 28 – 29 August 2012. Presentation by SEAFDEC
- 3.3 Update from BOBLME Project, focus on the work between Thailand and Myanmar Presentation by BOBLME Project
- Agenda 4:** Update on Integration of fisheries and habitat management and the importance of trans-boundary stocks and habitats
- Trans-boundary/migratory stocks
    - *Rastrelliger spp*/hilsa
    - Neritic tuna (Tonggol tuna)
  - Habitats and protected areas (mangroves, sea-grass and coral reefs)
  - Discussion on establishment of fisheries resources management and conservation areas – sub-regional cooperation on conservation and management
- Agenda 5.1:** Country update on Promotion of more effective management of fishing capacity and to reduce illegal and destructive (combat IUU) fishing in the North Andaman Sea
- MCS Networks and the establishment in the North Andaman Sea
  - Port Monitoring and Monitoring of Landings by “neighboring” vessels
  - Catch documentation and certification/validation
- Agenda 5.2:** Catch reporting and fisheries enforcement in trans-boundary areas of the EU
- Agenda 6:** Enhancing communities’ resilience and capacity to adapt to change
- Agenda 7:** Group Discussion on the Joint Action Plan
- Parallel Session: A Meeting of Planning and Management Committee between Thailand and Myanmar*
- Agenda 8:** Finalization of the Joint workplan and plenary discussion
- Agenda 9:** Establishment of the Working group and mechanism to share experiences
- Agenda 10:** Conclusion and Way forward for Sub-Regional and bilateral cooperation in fisheries and habitat management including efforts to combat illegal and destructive (IUU) fishing around North Andaman Sea and Myeik Archipelago
- Agenda 11:** Closing of the Meeting

**Review on the Implementation of the decisions from the first Planning and Management Committee Meeting, 13 – 14 March 2014**

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**DESCRIPTION AND FUNCTION**

**Executive Committee:**

Composition: decision-makers from appropriate levels in each country. In Myanmar, representatives maybe drawn from Department level and it may include representatives from the State

Responsibility: To establish and monitor the strategic direction of the Myanmar/Thailand collaboration under the BOBLME Program

**DESCRIPTION AND FUNCTION**

**Technical Advisory Group**

Composition: multi-stakeholder, broad-based body composed of technical experts; include BOBLME National Task Force (NTF) members. Members can also be members of the Planning and Management Committee and/or the Working Group

Responsibility: To provide technical advice to the planning and management committee as well as to the Working Groups

**DESCRIPTION AND FUNCTION**

**Planning and Management Committee**

Composition: 6 representatives from Myanmar and 6 representatives from Thailand who attended the First meeting during the Sub-regional Consultative Meeting in March 2014 in Bangkok  
- Maximum of 6 representatives from each country

Responsibility:

1. To develop detailed three-monthly workplans;
2. To develop frameworks and guidelines for activity monitoring and reporting
3. To develop frameworks and guidelines modalities for financial management
4. To hold regular Planning and Review Meeting every 3 months
5. To promote collaboration with SEAFDEC/IUCN and other regional programs working in the same region

**DESCRIPTION AND FUNCTION**

**Working Groups/Activity Teams:**

Composition:

1. Include representative from both Myanmar and Thailand
2. Each Team has a Team Coordinator to coordinate activity implementation, ensure timely production of progress reports and oversee financial management

Responsibility: To implement agreed collaborative activities

## THE AGREED WORKPLAN

### Prioritized activities

1. Formalizing the Planning and Management Committee
2. Developing professional competency at the local level (catch certification training)
3. Undertaking resource assessment (seagrass training and assessment)
4. Consultations to prepare for further activities relating to improved livelihood interventions
5. Information sharing







**Review of the Sub-regional Consultative Meeting of the Northern Andaman Sea**



**13-14 March 2012  
Bangkok**



**Background**

**The Sub-regional Consultative Workshop of the Northern Andaman Sea (Mergui/Myeik Archipelago) March 2012, Bangkok**

- ❖ Attended by representatives from relevant agencies from Myanmar and Thailand
- ❖ The Meeting was co-hosted by the SEAFDEC-Sweden Project, BOBLME Project and CORIN-Asia.
- ❖ Dual structure conducted in parallel sessions
  1. The “working model” of a collaborative management structure (for the Myeik Archipelago), facilitated by CORIN-Asia

**Background**

**The Sub-regional Consultative Workshop of the Northern Andaman Sea (Mergui/Myeik Archipelago) March 2012, Bangkok**

- ❖ Dual structure” in parallel sessions were organized
  1. The “working model” of a collaborative management structure (for the Myeik Archipelago), facilitated by CORIN-Asia
  2. Based on expertise and working experiences of participants, the group discussion was divided into 4 thematic concerns:
    - Critical habitat management (seagrass, mangrove, others);
    - Management responses to cooperation on trans-boundary and migratory fish stock (*Rastrelliger spp.*
    - Management of fishing capacity (vessel record, MCS); and
    - Port monitoring and landings across boundaries.

**Three (3) Main Issues**

1. Critical habitat management (seagrass, mangrove, others)
2. Transboundary Stock and Management
3. Management of Fishing Capacity

**1. Critical habitat management (seagrass, mangrove, others)**


**The group suggested on this following actions:**

1. Capacity Building on
  - Survey techniques on coral and sea grass
  - Taxonomy of coral and sea grass, mangrove, fish larvae, endangered species, shark, socio-economic
2. Habitat assessment at Palua Buda Island
3. Rapid assessment to update current status
4. Report the results both research and management and proposed to the Planning and Management Committee.

**Key indications on the works**


**Sea-grass**

- The seagrass conservation training was held 26 April to 3 May 2013 at Mawlamyine University and in the field (facilitated by Palawan State University (PaSU) and FFI (Flora and Fauna International), Supported through the BOBLME



**Corals**

- Indications provided by BOBLME that they will support training on coral assessments



**Mangroves**

- Indications provided by SEAFDEC-Sweden that they will support efforts towards improved management of mangroves, including restoration and conservation in identified areas

## 2. Transboundary Stock and Management

The group identified the lack and requirements for collaborative work

- **Species identification at juvenile stage**
  - The range and morphology is different for these species so morphology and genetic (DNA) studies are required
- **Species identification especially adult stage**
  - Two of these 3 dominant species *R. kanagurta*, *R. brachysoma* and *R. foughni* normally difficult to distinguish
- **Unit stock identification**
  - Genetic study is required
  - Study on fleet fishing area (which follow fish school)
- **Since SEAFDEC have been supported the tagging program and stock assessment (BOBLME) should be continued**

- The group also suggested to include spawning ground and spawning ground and spawning season which related on fish larvae should be studied
- The project proposal on oceanography together with other activities such as fisher livelihood should be developed
- **Capacity building**
  - Stock assessment
  - Fish larvae study
  - Genetic and morphology studies
- **Standardize port sampling scheme in MM and TH**
- **Monitoring on the changes of ecosystem which affected to mackerel species should be conducted**

### Recommendations

ACTIVITIES	TIMELINE (Start-End)	Responsible Agencies
1. Working group/sub-regional WG set up ▪ Using BOBLME existing Mackerel WG to form this Sub-regional meeting	Mar-Jan 2012 (w/in 3 mos)	3 person from DOF-MM & DOF-TH (Donor: BOBLME & SEAFDEC/Sida)
2. Sub-regional meeting for Northern Andaman Sea would follow the BOBLME program ▪ Review Northern Andaman Sub-regional status ▪ Review Northern Andaman Sub-regional status on local wisdom/ knowledge	April 2012 After Apr 2012 1 yr after Apr, 2012	DOF-MM & DOF-TH (Donor: BOBLME & SEAFDEC/Sida) -Sub-regional WG -Sub-regional WG
3. Proposal preparation ▪ MM and TH already submitted the proposal on genetic study, larvae and oceanography survey, fisher livelihood in Myeik Archipelago ▪ Capacity building on stock assessment for Indian Mackerel are now preparing ▪ Capacity building on fish larvae identification	Feb 2011 (done)  w/in 6 mos (from Mar 2012) w/in 6 mos (from Mar 2012)	Joint proposal bet DOF-MM & DOF-TH  -Sub-regional WG -Sub-regional WG

### Recommendations

ACTIVITIES	TIMELINE (Start-End)	Responsible Agencies
4. Survey planning and preliminary survey (marine biodiversity and fish landing) ▪ TH has regular port sampling survey ▪ MM to standardize the port sampling at Kaw Thau and Myeik by adopting TH's methodology (focusing on economically species) ▪ Time series monitoring/study on changes on EAF component (targeted species, bycatch-associated species, ETP, habitat, governance)	Jun 2012  The 1 <sup>st</sup> study: Apr 2013	-Sub-regional WG  -Sub-regional WG
5. Meeting on the survey results and resource mapping	Sep 2012	-Sub-regional WG
6. Training (study protocol)		
7. Awareness building (poster etc.) ▪ Under "Tagging Program" to develop poster and relevant media for public ▪ Poster on the sub-region activities	Jun 2012  Jun 2012	-Sub-regional WG  -Sub-regional WG

### Member of the Sub-Regional WG

THAILAND	MYANMAR
1. Mr. Montri Sumontha, Fisheries Biologist, DOF	The same person as BOBLME existing Mackerel WG from Myanmar
2. Representative from the Provincial Fisheries Office	
3. Representative from the Andaman Marine Fisheries Management and Administration	

### Priority Actions for Establishment of Larger Management Conservation Area (Trans-boundary)

#### Existing MPA

- Marine National Park in Ranong, Thailand
- Shark conservation Area in Myanmar
- Closed area and season (Jun-Aug) for all fishing gears will be implemented in Myanmar starting 2012

#### Future specific conservation area/MPA

- Depends on the study results e.g. seagrass bed as a protected area
- Report on the results to higher authorities (the proposed refugia/closed area/gear restricted area etc. would be discussed later on...)

### Where are we now? on Trans-boundary/ Migratory Stocks

#### *Rastrelliger spp.*

- Bay of Bengal WG on Mackerels (Indian Mackerel) is established (with support through the BOBLME)
- Two training events (Ranong and Myeik in 2012) for species identification organized for DOF staff in Myanmar and Thailand (by DOF Thailand and SEAFDEC)

### Where are we now? on Trans-boundary/migratory stocks

#### NERITIC tunas (longtail tuna/tonggol)

- BOBLME has in cooperation with DOF Malaysia and DOF Thailand embarked on a program on genetic stock structure (DNA) identification, that includes samples taken from Myanmar
- SEAFDEC has initiated a process to develop a regional plan of action for the management of neritic tuna in Southeast Asia. Following recommendations for a consultation in Songkla (October 2013) that will include the whole supply chain including capacity-building, stock assessment, catches, landings, processing and trade. The Expert Group Meeting on the draft RPOA will be convened 18-20 June 2014.
- Sub-regional approaches, including the Andaman Sea, will be part of the follow-on actions. An Andaman neritic tuna working group to be established.

### 3. Management of Fishing Capacity

#### Lack/Requirements for Collaborative Work

- Facilitate the process on catch certification between Myanmar and Thailand e.g. simple catch certificate procedure
- Inadequate of understanding on the important information report bycatch
- Inadequate information sharing between Myanmar and Thailand.

#### Recommendations

ACTIVITIES	TIMELINE (Start-End)	Responsible Agencies
1. Encourage information sharing e.g. catch data and species level	1 year	DOF
2. Establishment of Working Group/focal point between Myanmar and Thailand at Provincial/local level	1 year	Relevant Agencies
3. Enhance certificate procedure between Myanmar and Thailand (simple process issue catch certificate)	3 m	Relevant Agencies

#### Recommendations

ACTIVITIES	TIMELINE (Start-End)	Responsible Agencies
4. Encourage awareness on relevant issues: <ul style="list-style-type: none"> <li>➤ Vessel registration</li> <li>➤ VMS</li> <li>➤ Fishing gear method</li> </ul>	1 time/month	Relevant Agencies
5. Follow-up activities through meeting/ consultations	Once a year	Relevant Agencies

#### Review on the Status of Implementation of the Project

##### Catch documentation/catch certificates

- In March 2012, it was decided to “organize a workshop to share experiences on catch certificates issuing and processing and develop a joint plan of action for developing a complementary system at the local level in each country” –
- The second Andaman Sea Meeting (August 2012) recommended that there is a need to “strengthen capacity of personnel groups in fishing ports to be improve port management and to be able to handle more detailed taxonomic identification, specifications and different types of gears/vessels, etc. and specific aspects related to quality, health and environmental standard” –
- SEAFDEC and member countries are working together to try to develop an ASEAN Catch Certification Scheme

#### Review of Status of Implementation of the Project

##### Port monitoring and trans-boundary landings

- The second Andaman Sea Meeting (August 2012) recommended that there is a need to “establish working group(s) on the development of monitoring functions and routines in ports and landing sites, including capacity-building (ensure that partners/institutions with responsibility for port management and port inspections are involved)”
- Information (October 2013) by FAO is that they have developed a manual, or module, for training of port inspectors

#### Review of Status of Implementation of the Project

##### Capacity-building, awareness-raising and a strengthening of local capacity and involvement in planning and management in terms of habitats/fisheries management and socio-cultural/economic monitoring

- SocMon: SocMon training will be organized through Mawlamyine University with partners (FFI and PaSU, contracted by BOBLME) to strengthen capacity on social, cultural and economic monitoring in coastal and MPA management, take place from 9 to 20 January 2014.
- IUCN – BOBLME have entered into an LoA with IUCN Asia Regional Office on an “improved information base and a functional network or coalition of government, non-governmental organizations and universities at local, national and international (bilateral) level addressing conservation an management of the Myeik Archipelago region”

#### Review of Status of Implementation of the Project

- Traditional knowledge/strengthening local capacity/communities: Following the recommendations from the Second Andaman Sea Meeting (August 2012) SEAFDEC-Sweden has been contracting Prince of Songkla University (PSU) to “record and document experiences and information on local indigenous groups of people (Sea gypsies, Moken, etc) together with socio-economic analysis on changes in the community caused by development, etc.”
- CORIN-Asia, Myanmar: Following-on to a meeting with the new DG of DOF, Myanmar, SEAFDEC has been having initial contacts with CORIN-Asia on their involvement is support of local capacity-building in Myanmar.

- The Meeting is invited to take note of status of the update and use of these recommendation for further discussion during the break group discussion Agenda 7 to agree on the collaborative plans between Thailand and Myanmar

## Annex 7

### List of Recommendations from the Report of the Second Meeting of the Andaman Sea sub-region Phang-Nga province, Thailand 28-29 August 2012

#### Recommendation

The Meeting was participated by representatives from relevant agencies of countries bordering the Andaman Sea, namely Indonesia, Malaysia, Myanmar and Thailand; and representatives from organizations/institutions, namely SEAFDEC (Secretariat, TD and MFRDMD), BOBLME Project, the Swedish Agency for Marine and Water Management and Prince of Songkla University of Thailand. The Meeting was also attended by members of the Regional Fisheries Policy Network (RFPN) for Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam.

The Meeting discussed and came up with recommendations on activities that should be considered and/or undertaken by relevant stakeholders in the future as follows:

#### I. Strengthening bilateral and multilateral cooperation and sub-regional arrangements

Recommendations	Actions to be taken by
<p>1. Develop <b>cooperative agreements within and among countries with relevant agencies</b> (e.g. agencies responsible for fisheries, enforcement, and environment, including NGO's/independent organizations) on dialogues for information sharing, capacity building and in the process build upon existing cooperative arrangements (including customs, navy, police, etc) in border provinces</p> <p><i>Update lists and inventory of existing arrangements including informal national, bi-lateral and regional agreements, (including customs, navy, police, etc).</i></p> <p><i>Establish cooperative arrangements between countries to resolve conflicts (where possible) on trans-boundary issues, e.g. transfer/landing of fishery products across borders, etc.</i></p>	<p>Relevant national/regional agencies</p> <p>SEAFDEC and BOBLME</p>
<p>2. Enhance cooperation by <b>strengthening institutional responsibility within countries and among neighboring countries</b> to include trans-boundary dialogue with an aim to come up with (sub-) sub-regional agreements and bi- and multi-lateral arrangements</p> <p><i>Incorporate or, to the extent possible, build upon informal local (provincial) bi- and trilateral practices and arrangements, even though they are not fully recognized by the national centers</i></p>	<p>Relevant national/regional agencies</p> <p>SEAFDEC, BOBLME and others</p>
<p>3. Enhance coordination between SEAFDEC and SEAFDEC-Sida Project with other projects and other organizations, e.g. BOBLME, SEAFDEC/Japanese Trust Fund, CORIN-Asia (Wetlands Alliance), IUCN to ensure that activities in the Andaman sub-region are undertaken in coherent manner and reduce duplication of effort</p>	<p>Relevant regional organizations /agencies</p>
Recommendations	Actions to be taken by
<p>4. Encourage involvement of high-ranking officials of the Member</p>	<p>Relevant</p>

Countries in future regional/sub-regional consultations to ensure political will/support to the implementation of fisheries management for sustainability of  <i>Working with and among countries to define “high level” meetings (in principle a “two tier” process: policy and working levels</i>	national/regional agencies BOBLME and SEAFDEC
5. Enhance analysis and “packaging” of results from research, studies and recommendations from technical consultations/meetings to <b>provide and communicate simplified information</b> packages that are more understandable for policy makers and general public  <i>“Communication” is of key importance</i>	Relevant national/regional agencies
6. Involve other countries, e.g. India (Andaman and Nicobar Islands), etc, in future activities as relevant and appropriate through bi-lateral or multi-lateral dialogue and other arrangements	BOBLME

## II. Enhancing communities’ resilience and capacity to adapt to change

Recommendations	Actions to be taken by
7. Establish mechanism to enhancing resilience of local communities and to facilitate income diversification and to reduce dependence on fishery resources by capacity building for local people on non-fishery alternative livelihoods, e.g. tourism, diving trips, handicraft, etc.	Relevant national agencies and (local) NGOs
8. Further studies on local fishing communities, including documentation of the traditional livelihood, indigenous knowledge, indigenous fishing practices, etc, with an aim to strengthen their involvement in planning and management of habitats, fisheries and other developments (tourism, etc.)  <i>Record and document experiences and information on local indigenous groups of people (Sea gypsies, Moken, etc.) together with socio-economic analysis on the changes in community caused by development, etc.</i>	Relevant national and regional agencies

## III. Integration of fisheries and habitat management and the importance of trans-boundary stocks and habitats

Recommendations	Actions to be taken by
9. Implementation of coordinated fisheries management measures for trans-boundary stocks, e.g. closed areas and closed seasons and designation of “larger fisheries resources conservation areas” based on available reliable (scientific and anecdotal) information, while applying a precautionary approach, in order to limit catching of juveniles, to rebuild depleted stocks and to conserve critical habitats.  <i>Establish larger fisheries resources conservation areas, building upon and incorporate existing “managed” areas (MPAs, Ramsar sites, Heritage sites, etc.), including trans-boundary agreements on management, rules and regulations among neighboring countries, e.g. for restrictions on fishing activities, closed seasons and conservation of critical habitats</i>	DOFs and Relevant national/regional organizations



<p><i>Agreements between countries on the establishment of <b>task force(s) and working groups</b> to define reliable (scientific and anecdotal) information and to indicate appropriate management measures and to develop coordinated research, capacity-building and information sharing</i></p>	
<p>10. Increase knowledge on trans-boundary stocks (particularly Mackerels) through biological studies, studies on life history and life cycle, genetic analysis, studies on linkages between oceanographic data and fish productivity data, etc. The information obtained will support a better understanding on the status and structure of stocks, spawning-and nursery grounds, routes of migration, etc.,</p> <p><i>Follow-up on recommendations from previous consultations on <i>Rastrelliger spp.</i> and Tongol (Long Tail) Tuna</i></p> <p><i>Develop appropriate management measures (e.g. rules and regulations, closed seasons, closed areas etc.) in consultation with stakeholders by building on available and obtained.</i></p>	<p>Respective countries and relevant organizations (BOBLME, MFRDMD, SEAFDEC/TD)</p>
<p>11. Undertake studies and joint actions on important habitats, including actions for rehabilitation and conservation of mangrove areas, sandy beaches/mud flats, sea-grass beds, coral reefs, etc.</p> <p><i>Establish task forces, working groups and trans-boundary agreements in sub-sub regions or in the sub-region as applicable</i></p>	<p>Relevant national/regional organizations (BOBLME, SEAFDEC and IUCN)</p>
<p>12. Develop informative records and publications (with cooperation from partners) on MPAs, heritage sites and other “managed” areas, including references to the importance to fisheries, to be published and shared among countries and interested parties (to be updated regularly)</p>	<p>Relevant national and regional organizations (MFF, IUCN, WWF, etc)</p>

**IV. Promotion of more effective management of fishing capacity and to reduce illegal and destructive fishing (combat IUU fishing) in the Andaman Sea**

Develop capacity of officers and personnel in agencies responsible for management of fishing capacity (registration, licensing etc), port monitoring/inspection and other relevant institutions to meet higher expectations including ability to cooperate with other institutions and across boundaries. There is a general need to support required cooperation among relevant national and regional organizations (BOBLME, RPOA and SEAFDEC).

Recommendations	Actions to be taken by
<p><b>4.1 Establish and promote collaboration in MCS networks</b></p>	
<p>13. Establish and strengthen MCS Networks at provincial and local level, involving relevant agencies/stakeholders (within defined trans-boundary areas) to facilitate sharing of experiences among countries as well as among local communities in design, establish and undertake <b>cooperation within MCS networks</b> to support enforcement measures and implementation of management actions</p> <p><i>Develop <b>trans-boundary and sub-regional agreements</b> on rules and regulations between neighboring countries for the cooperation and responsibilities of partners involved in MCS network</i></p>	<p>Relevant national and regional organizations</p>

<p><i>for the landing of resources harvested at sea and in this sense being on the “threshold” between the sea and the land.</i></p>	
<p><b>21. Building up of working relations for institutions and entities responsible for the management of fishing ports and landing sites</b></p> <p><i>Establish working group(s) on development of monitoring functions and routines in ports and landing sites, including capacity building – ensure that partners/institutions with responsibility for port management and port inspections are involved</i></p> <p><i>Support cooperation and strengthen the role of concerned authorities, e.g. of custom office, immigration office, fishing port authorities, etc. in port monitoring, inspections on-board vessels and to collect relevant data and information</i></p>	<p>Relevant national/regional organizations (with support from BOBLME and SEAFDEC)</p>
<p><b>22. Strengthen the capacity of personnel groups in fishing ports to improve port management and to be able handle more detailed collection of data and information, such as detailed taxonomic identification, specifications on different types of gears/vessels, etc. and specific aspects related to quality, health and environmental standard.</b></p> <p><i>Improve basic management of fishing ports and landing sites, e.g. enhancing the quality of catch, safety and hygiene of the port, etc. (not only focusing on measures in order to comply with requirements of global instruments)</i></p> <p><i>Develop and improve catch monitoring systems in existing ports and landing sites, including quantity (catch values) and quality (species or species group) of the catch, vessels records (lists of vessels, entry and exit from the ports. Improve inputs from ports into statistics and catches and landings</i></p>	<p>Relevant national/regional organizations (with support from BOBLME and SEAFDEC)</p>
<p><b>23. Explore the application and relevance of the PSM Agreement and agreement to validate the legal status of catches from small-scale fishing vessels landing the catch at border fishing ports –</b></p> <p><i>Establish necessary bi- and trilateral institutional cooperation to negotiate and establish agreements on the status of artisanal catches</i></p>	<p>Relevant national/regional organizations (SEAFDEC)</p>

<p><i>Introduction of Vessel Monitoring Systems (VMS) where applicable</i></p>	
<p>14. Establish and facilitating trans-boundary dialogues among countries, at national and at local level, in monitoring, control and sharing of information on the movement/encroachment of fishing vessels, as well as in resolving of conflicts.</p> <p><i>Potential conflicts among fishermen should be assessed.</i></p> <p><i>Enhance cooperation among agencies concerned and local organizations/communities to deal with illegal and destructive fishing within countries and across boundaries</i></p>	<p>DOFs and relevant national organizations. SEAFDEC and relevant regional organizations</p>
<p><b>4.2 Vessel registration and fishing licensing</b></p>	
<p>15. Establish national and regional cooperation between agencies responsible for fishing vessel registration and for the process to issue licenses to fish (vessel, gear and/or people).</p> <p><b><i>Cooperate to develop and implement appropriate measures to limit fishing capacity in responding to the status of fishery resources</i></b></p> <p><i>Explore and develop mechanisms for trans-boundary cooperation and information sharing on registered fishing vessel, numbers and type (if available) of unregistered fishing vessels and on issued licenses to fish (vessels, gear and/or people)</i></p>	<p>Relevant national/regional agencies</p>
<p>16. Facilitate the comparing of data/information on registered fishing vessels among countries in the Andaman Region and specifically in the northern and southern sub-regions by identifying minimum data <b>requirements needed to monitor movements of fishing vessels</b> within countries and across boundaries, taking into consideration already existing vessel registration systems and practices.</p> <p><i>Set up one working group for each sub-region to develop a better understanding on active fishing capacity in the sub-regions and to facilitate sharing/exchange of data/information to provide better basis for the monitoring of vessels movements and reporting among neighboring countries (as needed study ways of converting data to become comparable among countries)</i></p>	<p>Relevant national/regional agencies</p>
<p>20. Review existing or the existence of local (trans-boundary) practices and informal arrangements on registration of fishing vessels and on processes to issue licenses to fish (such as double registration, double licenses, etc).</p> <p><i>Explore, or assess, steps needed to align and build upon (if possible) such trans-boundary practices for sub-regional efforts to agree on restrictions and regulations on allowable active fishing efforts (vessel type, gears and people)</i></p>	<p>Relevant national/regional agencies</p>
<p><b>2.3 Port Monitoring</b></p> <p><i>There is a growing need to provide awareness and understanding on the important roles and functions of ports and landing places while recognizing the large amount of institutions involved management and activities related to ports and landing sites. This should also be recognized in terms of being the point of “entry” (and control) of goods being transported by seas and</i></p>	



<p><i>for the landing of resources harvested at sea and in this sense being on the “threshold” between the sea and the land.</i></p>	
<p><b>21. Building up of working relations for institutions and entities responsible for the management of fishing ports and landing sites</b></p> <p><i>Establish working group(s) on development of monitoring functions and routines in ports and landing sites, including capacity building – ensure that partners/institutions with responsibility for port management and port inspections are involved</i></p> <p><i>Support cooperation and strengthen the role of concerned authorities, e.g. of custom office, immigration office, fishing port authorities, etc. in port monitoring, inspections on-board vessels and to collect relevant data and information</i></p>	<p>Relevant national/regional organizations (with support from BOBLME and SEAFDEC)</p>
<p><b>22. Strengthen the capacity of personnel groups in fishing ports to improve port management and to be able handle more detailed collection of data and information, such as detailed taxonomic identification, specifications on different types of gears/vessels, etc. and specific aspects related to quality, health and environmental standard.</b></p> <p><i>Improve basic management of fishing ports and landing sites, e.g. enhancing the quality of catch, safety and hygiene of the port, etc. (not only focusing on measures in order to comply with requirements of global instruments)</i></p> <p><i>Develop and improve catch monitoring systems in existing ports and landing sites, including quantity (catch values) and quality (species or species group) of the catch, vessels records (lists of vessels, entry and exit from the ports. Improve inputs from ports into statistics and catches and landings</i></p>	<p>Relevant national/regional organizations (with support from BOBLME and SEAFDEC)</p>
<p><b>23. Explore the application and relevance of the PSM Agreement and agreement to validate the legal status of catches from small-scale fishing vessels landing the catch at border fishing ports –</b></p> <p><i>Establish necessary bi- and trilateral institutional cooperation to negotiate and establish agreements on the status of artisanal catches</i></p>	<p>Relevant national/regional organizations (SEAFDEC)</p>

## Annex 8

### Overview of BOBLME related activities in Myanmar and Thailand, with reference to the Myeik Archipelago

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#### Overview of BOBLME related activities in Myanmar and Thailand, with reference to the Myeik Archipelago

Indian Mackerel, Hilsa shad,  
Marine Protected Areas, Socio-economic monitoring, Seagrass conservation, Ecosystem survey and characterization

#### Training courses and meetings

- Training course on Seagrass Conservation and Monitoring in Myanmar Coastal Zone, Mawlamyine, Myanmar, Ngapali Beach (Thandwe), April/May 2013 (FFI, PSU)
- Socio-economic monitoring (SocMon) training, Myanmar, Mawlamyine, January 2014 (FFI, SocMon)
- RV Dr Fridtjof Nansen cruise planning meeting and launch, Myanmar, Yangon, November/December 2013
- EAF Nansen Cruise workshop, Myanmar, Yangon, May 2014
- SocMon survey (FFI), Seagrass mapping (FFI), Sharks conservation and NPOA (FFI), MPA workshop (IUCN)

#### Assessments, reviews, capacity development

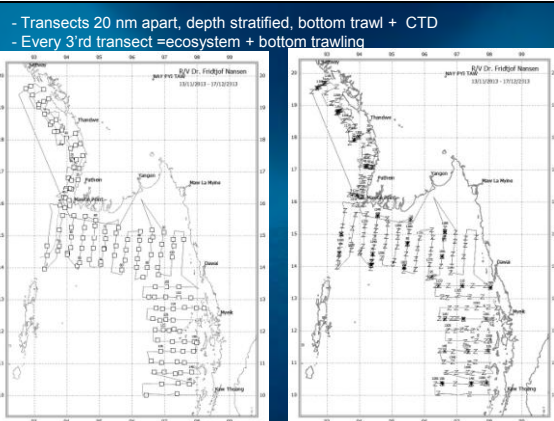
- Fish stock assessment training (hilsa shad)
- Hilsa Fisheries Assessment Working Group meeting
- Support to Indian mackerel sampling for genetic study
- Assessment of the vulnerability and resilience of the Irrawaddy Delta (Delta Alliance)
- Enhancing capacities of fishing communities for resource management (ICSF)
- Assessment of the status of the hilsa resources
- Monitoring marine pollution and water quality (NIVA)
- Research and capacity development in Myanmar with focus on hilsa resources (WorldFish)

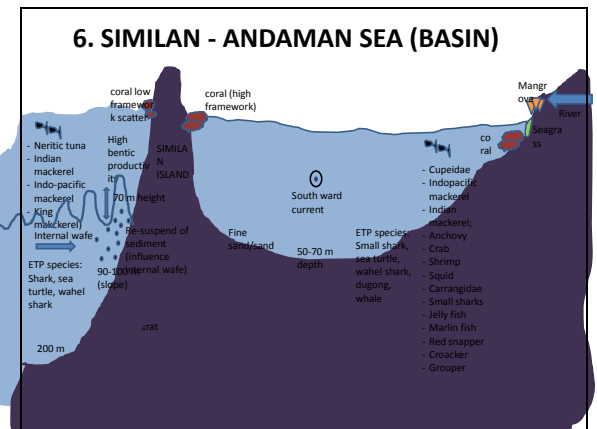
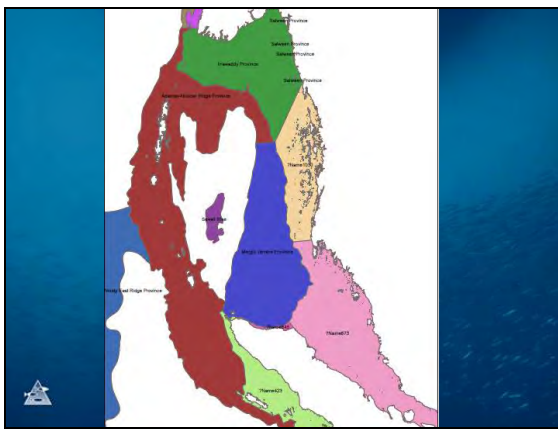
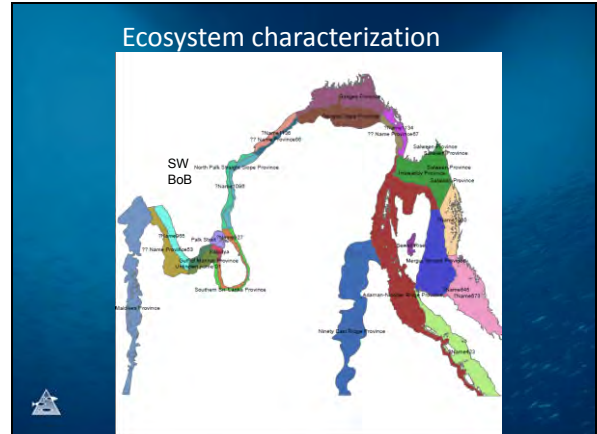
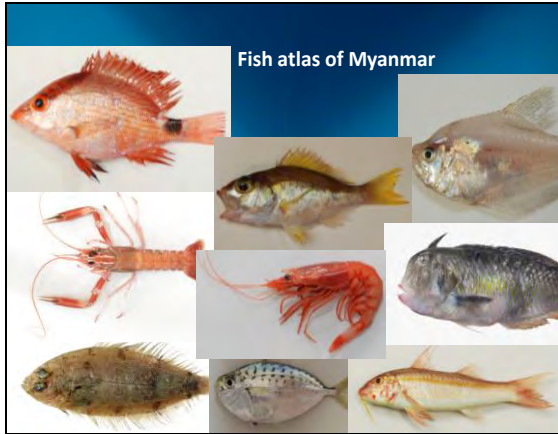
#### RV Dr Fridtjof Nansen Ecosystem Survey

- Survey stations extended the length of the coastline and across the EEZ
- Transects were performed at a series of depths, separated by 20nm
- Survey results were split into 3 regional zones: Rakhine coast, Delta coast, Thanintharyi coast
- 145 bottom trawls at various depths according to a stratified sampling pattern
- 3 Pelagic trawls were performed to identify acoustic targets not identified by acoustic survey. Abundance of pelagic fish relatively low and most covered by the bottom trawls.

#### RV Dr Fridtjof Nansen Ecosystem Survey

- Acoustics for fish ID and sonar for bottom scanning
- 214 stations recorded CTD conductivity, temperature, density, oxygen, nutrients, chlorophyll-a
- 38 plankton stations (phytoplankton, zooplankton); 145 sediment stations (type and carbon content).
- Photographic records (>500 species) as a species collection





### MPA Policy briefs

#### Marine Protected Areas - Myanmar

**MPAs are critical to ecological integrity and human well-being**

Myanmar has the largest marine MPA in the world. It covers 1.2 million km<sup>2</sup> of the Andaman Sea. The MPA is a critical component of Myanmar's marine biodiversity and provides a wide range of ecosystem services, including food, income, and employment.

**MPAs provide valuable ecosystem services**

MPAs provide a wide range of ecosystem services, including food, income, and employment. They also provide a safe haven for marine biodiversity and a source of genetic resources.

**MPAs need a strong regulatory framework**

MPAs need a strong regulatory framework to ensure their effectiveness. This includes clear boundaries, zoning, and enforcement mechanisms.

**MPAs face serious challenges**

MPAs face serious challenges, including illegal fishing, overfishing, and climate change. These challenges threaten the ecological integrity and human well-being of the MPA.

**MPAs require improved governance and effectiveness**

MPAs require improved governance and effectiveness to ensure their long-term sustainability. This includes strengthening legal frameworks, improving monitoring and enforcement, and involving local communities in MPA management.

### MPA Policy briefs

#### Marine Protected Areas - Thailand

**MPAs are critical to ecological integrity and human well-being**

Thailand has a rich marine biodiversity and a long history of marine resource management. MPAs are a key component of this management and provide a wide range of ecosystem services.

**MPAs provide valuable ecosystem services**

MPAs provide a wide range of ecosystem services, including food, income, and employment. They also provide a safe haven for marine biodiversity and a source of genetic resources.

**MPAs need a strong regulatory framework**

MPAs need a strong regulatory framework to ensure their effectiveness. This includes clear boundaries, zoning, and enforcement mechanisms.

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**MPAs require improved governance and effectiveness**

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## Annex 9

### **Ecosystem Approach to Fisheries Management (EAFM) with focus on the development of the training course “Essential EAFM”**

*Dr. Rudolf Hermes*

Chief Technical Advisor, BOBLME C/-Andaman Sea Fisheries Research Development Center  
77 Moo 7 Sakdidej Raod , Makham Bay Tambol Vichit, Muang District Phuket 83000, Thailand  
E-mail: rudolf.hermes@boblme.org



#### **Why EAFM?**

The ecosystem approach offers a practical and effective means to manage complex fisheries.

It represents a move away from fisheries management that focuses on target species, towards systems and decision-making processes that balance environmental, human and social well-being within improved governance frameworks.

For many, these are new skills and the Essential EAFM course responds to the need for regional capacity development in this regard.

#### **The Essential EAFM training course**

- The course focuses on the development of professional planning, analytical and interpersonal skills needed for better structured and more informed decision-making.
- The Essential EAFM course will help current (and future) practitioners ensure that their approach to fisheries management is more ecologically sound and accounts for human needs while promoting good governance.
- This course will equip trainees to:
  - develop and implement an effective EAFM plan
  - manage fisheries more holistically
  - better resolve fisheries issues and challenges
  - reduce user group conflicts
  - work cooperatively with other stakeholders
  - help unlock financial resources

#### **Who is the course suitable for?**

- This Essential EAFM course targets mid-level managers and staff working with fisheries, environment, economic development and planning departments who are responsible for administering or managing fisheries and the associated marine environment.
- The course is equally suitable for junior-level staff or students at fisheries research institutes and colleges.

### What fisheries can the EAFM course be applied to?

- The EAFM course can be applied to any fisheries system.
- Teaching material focuses on Asian coastal marine capture fisheries, however by changing the focus and examples, it could equally be applied to inland or offshore fisheries as well as aquaculture.
- The principles and the approach to management planning are the same.

### Who should deliver the course?

- The Essential EAFM course would ideally be delivered by institutions or departments involved in capacity development.
- This could include government agencies, fisheries colleges and universities as well as environmental bodies or non-governmental organizations.

### How is the course delivered?

- Essential EAFM is delivered in a highly interactive manner, featuring numerous activities to fully engage participants.
- By the end of the course trainees will have a firm understanding of how and why EAFM can be used to sustainably manage fisheries.
- They will also have hands-on experience of the steps needed to develop an EAFM plan.

### What course materials are available?

- A complete set of Essential EAFM course materials has been developed and is available free of charge.
- These include learning modules, presentations, tools to be used at different stages in the EAFM process, a resource guide, handbook, session plans and workbooks.

### Where to look for more information?

Please see [www.boblme.org/eafm-training.html](http://www.boblme.org/eafm-training.html)  
or contact: [rcu@boblme.org](mailto:rcu@boblme.org)

### Who developed Essential EAFM?

The development of Essential EAFM is a collaboration between:





# Annex 10

## Trans-Boundary Stocks Along the Andaman Sea Coast of Thailand, Indian Mackerel

*Mr. Kumpon Loychuen*

Chief, Ranong Marine Fisheries Station Marine Fisheries Research and Development Bureau  
Department of Fisheries 157 Sapanpla Road, Moo 1 Tambol Paknam, Muang District  
Ranong Province 85000, Thailand, E-mail: k\_loychuen@yahoo.com


**Important trans-boundary stock in the Andaman Sea Coast of Thailand**  
**Indian Mackerel (*Rastrelliger kanagurta*)**



KUMPON LOYCHUEN - Ranong Marine Fisheries Station, 157 Moo 1, Paknam Sub-district, Muang District, Ranong Province, 85000 Thailand  
Department of Fisheries, Thailand

**Contents of Presentation**

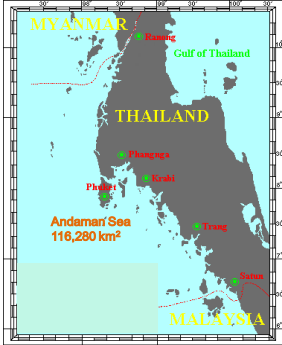
1. Introduction
2. Biological, Fisheries and Status of Indian Mackerel
3. Instruments of Management
4. Activities/projects which were implemented based on mutual agreement



**1. Introduction**

**Andaman Sea Coast of Thailand**

- Coastal Provinces: 6 Provinces
- Length of coastline: 865 km.
- Exclusive Economic Zone (EEZ) : 116,280 km<sup>2</sup>
- Shared border: Myanmar in the west, Malaysia in the south



**1. Introduction (continued)**

Number of important fishing in Andaman Sea, Thailand (2011) 821 boats




marine capture fisheries in Andaman Sea, Thailand (2011) 545,646 tonnes



**2. Biological, Fisheries and Status of Indian Mackerel**

**Biological**

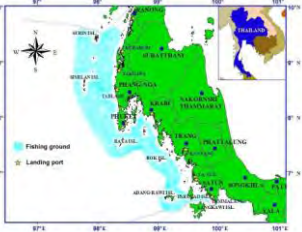
- The fish spawned all year round with 2 highly spawning phase, during December-March and August-September.
- The average size at first maturity of males and females were 17.83 and 18.92 cm (smallest size were 16.30 and 16.20 cm) respectively,
- Sex ratio of male:female was 1:1.31



Krajangdara, T., Puntalang P., Chalee P. and Hussadee P. 2007. Reproductive Biology of Short mackerel *Rastrelliger brachysoma* (Bleeker, 1851) and Indian mackerel *R. kanagurta* (Cuvier, 1816) in Thai water. Technical paper No. 19/2007. Marine Fisheries Research and Development Bureau, Department of Fisheries, Ministry of Agriculture and Cooperatives. 36 p.

**2. Biological, Fisheries and Status of Indian Mackerel (continued)**

**Fisheries and Status of Indian Mackerel**



Fishing ground and landing port of the Indian Mackerel

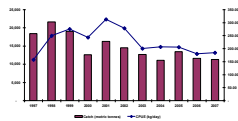
## 2. Biological, Fisheries and Status of Indian Mackerel (continue)

### Fisheries and Status of Indian Mackerel

- Production showed the highest peak, 21,654 tonnes in 1998, while the highest peak of CPUE was 243.04 kg/day in 2001.

- Overall trend of both catch and CPUE were declined

- The total length of Indian mackerel caught by purse were in range from 4.00-30.50 cm, ( $16.44 \pm 3.75$  cm)
- The size at first capture was 15.36 cm
- Overfishing 30%



Annual variation of catch and CPUE of Indian mackerel by purse seine fisheries along Andaman Sea coast of Thailand between 1997-2007

Somntha M., Boonsak S., Panjarat S., Juyen T., and Rathsiaman J. 2010. Stock Assessment of Indian mackerel (*Rastrelliger kanagurta* (Cuvier, 1816)) along the Andaman Sea Coast of Thailand. Technical paper No. 13/2010. Marine Fisheries Research and Development Bureau, Department of Fisheries, Ministry of Agriculture and Cooperatives, 38 p.

## 3. Instruments of Management

- Prohibition on use of surrounding nets (mesh size less than 2.5 cm) with light luring fishery
- Zoning and Timing of restriction
- Fishing Capacity Management
- Monitoring, Control & Surveillance



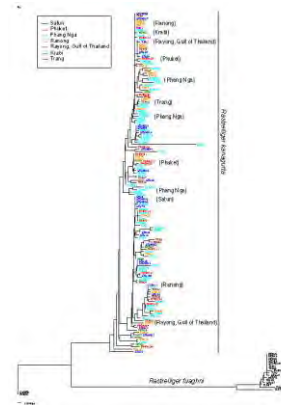
## 4. activities/projects

### Stock structure of Indian Mackerel in the West Coast of Thailand

#### Progress

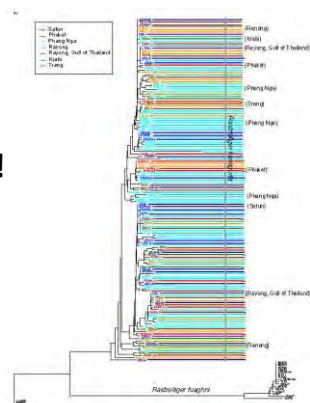
- Total 511 extractions:
  - 295 PCR reactions
  - 219 submitted for sequencing (exclude initial primer design)
  - 160 good sequences
- Completely desimated fund
- Loss two research assistance due to noncontinuous funding (funding does not come according to the plan)

No stock structure !



No stock structure !

161 sequences



#### Instrument of management

The data information showed that the production on Indian Mackerel in the Andaman sea has been declined due to over fishing. It is important to emphasize on management of Indian mackerel

Thailand is located in tropic zone. There are varieties of fish species caught by fishing gears. In fact, fisheries management by focusing specific fish is impossible. Recently, Thailand has managed holistically, this may affect positively to stocks of Indian Mackerel. Presently, instruments of Management in the Andaman Sea Coast of Thailand, including

- Prohibition on use of surrounding nets (mesh size less than 2.5 cm) with light luring fishery
- Zoning and Timing of restriction
  - In terms of Zoning and timing I would like to show the instance of the regulations that are in use including: the restricted zone of 1,000 m from the shore line. In this restricted zone trawlers and push netters are all prohibited and the establishment of the Spawning and Nursing Seasonal Closed Measure: SCM where in this particular area trawlers, purse seiners and gill nets with smaller mesh size than 4.7 cm are all prohibited during 1 April to 30 June.
- Fishing Capacity Management
  - Survey of fishing vessels. This activity has been conducted since 2010 that reflected in the Fishery Management Master Plan of the Department of Fishery including
    - \* Types (e.g. purse seiners, trawlers, etc.)
    - \* Size of vessel (length in meters, bread in meters, GT, etc.)
    - \* Capacity of engine (HP, in-board, out-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
- And MCS in Monitoring, Control & Surveillance
  - \* The cooperation among related stakeholder will enhance
  - \* Communication: transfer & exchange of standard information
  - \* Involving of fishers in fisheries governance e.g. traditional knowledge and wisdom: increase trustness, 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 11

## Building Ecosystem Resilience and Fisheries Refugia through the Development of MPA Networks in the Andaman Sea

Mr. Petch Manopawitr


Deputy, Southeast Asia Group Chief, IUCN Asia Regional Office 63 Sukhumvit 39, Wattana, Bangkok 10110, Email: petch.manopawitr@iucn.org

**Building ecosystem resilience and fisheries refugia through the development of MPA networks in the Andaman Sea**



**mpag**  
University of Victoria


**Petch Manopawitr, Philip Dearden, Niphon Phongsuwan, James True, Rudolf Hermes**



### Contents

- Introduction:
  - what is an MPA
  - why do we need MPA networks
- Method:
  - Synthesizing long-term database
  - Resilience assessment
  - Systematic spatial planning
- Result
  - proposed optimal Resilient MPA network (ongoing)
- Recommendation
  - The need for transboundary conservation and large scale marine spatial planning

MPA and fisheries management, FAO 2011



*A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (IUCN, 2008)*

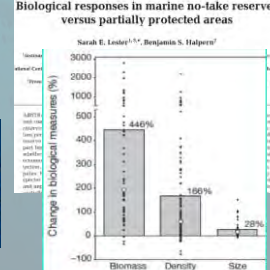
### Evidence of MPA benefit

**MPAs have proven effective in restoring marine resources**

Lester et al. 2009 compiled data from 124 no-take areas from 29 countries and showed that

Reserve Effect	Value
↑ size	28%
↑ density	166%
↑ biomass	466%

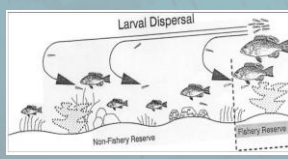
**Biological responses in marine no-take reserves versus partially protected areas**



### Evidence of MPA benefit

**MPAs have proven effective in supporting nearby fisheries**

Halpern et al. 2010 analysed 16 independent MPA survey and showed that spillover is a common phenomenon for species that respond positively to reserve protection. Although at relatively small scales, detectable on average up to 800 m from reserve boundaries.



### Evidence of MPA benefit

**MPAs have proven effective in supporting nearby fisheries**

Russ & Alcala. 2011 used 25 years' worth of data from marine reserves in Philippines to show that;

- species richness increases with time outside of the reserve as well as inside
- the change is not (primarily) due to habitat change
- the effect tapers off with distance from reserve (as has been shown before)
- large, predatory fish are more common inside and just outside reserves than farther away
- the community composition outside the reserves becomes more like that inside over time

**Enhanced biodiversity beyond marine reserve boundaries: The case of spillover**

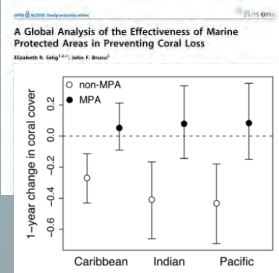
*(Small text block containing scientific details and references)*



Evidence of MPA benefit

MPAs have proven effective in preventing coral loss

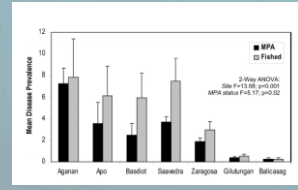
Selig & Bruno 2010 compiled a global database of 8534 live coral cover surveys from 1969–2006 and compared annual changes in coral cover inside 310 MPAs to unprotected areas.



Evidence of MPA benefit

MPAs have proven effective in mitigate coral disease

Raymundo et al. 2009; surveyed reefs across the central Philippines, including well-managed (MPAs), and found that disease prevalence was significantly negatively correlated with fish taxonomic diversity



MPA and fisheries management, FAO 2011

**FIGURE 2**  
Protecting different life stages through network connectivity

Such connections could be currents transporting fish eggs and larvae, thus potentially adding to more-sustainable fish populations. Networks may act synergistically relative to a single MPA. Thus the whole is greater than the sum of the parts

**Thailand's Andaman MPAs**

- A string of 17 Marine National Parks, 3 non-hunting areas and 1 biosphere reserve
- Protect 62% of coral areas, 41% of seagrass and 20% of mangroves
- About 400 hard coral species
- ~1/3 of total marine fisheries
- ~10 million visitors/year
- Under World Heritage Nomination

Synthesize long-term data Long-term monitoring program on coral cover since 1986 by coral biologists at PMBC (Phongsuwan&Chansang, 1992, Brown&Phongsuwan 2004, Phongsuwan&Chansang 2012)

**174 sites across Andaman 18 long-term monitoring sites**

Line intercept transect: 100m permanent transect

Manta-tow survey

Resilience assessment by semi-quantitative method (after Maynard et al 2010)

Factors	1	2	3	4	5
1 Live coral cover	0-20	21-40	41-60	61-80	81-100
2 Abundance of herbivorous fish (Parrotfish, Surge wrasse, Surge wrasse, Surge wrasse)	<10%	11-20%	21-30%	31-40%	>40%
3 Extent of sea urchin cover	none or <5%	5-25%	26-50%	51-75%	(76-100%) high cover
4 Survival of sea urchin	none or <10%	11-20%	21-50%	51-75%	(76-100%) high cover
5 Seeding potential (area of seeding level to be specified, self-seeding coral cover of 100m transect, local seeding (10 km) and distant seeding (100 km))	<100 km <sup>2</sup>	100-500 km <sup>2</sup>	500-1000 km <sup>2</sup>	1000-1500 km <sup>2</sup>	>1500 km <sup>2</sup>
6 Presence of other functional habitat (mangrove, seagrass) leading to be specified	none	in proximity (0-25 km) to patch of mangrove/seagrass	Adjacent (26-75 km) to patch of mangrove/seagrass	In proximity (76-100 km) to patch of mangrove/seagrass	Adjacent (>100 km) to patch of mangrove/seagrass
7 Disturbance (level) with fish monitoring data	none	low	moderate	high	very high
8 Anthropogenic physical impacts	none	low	moderate	high	very high


Resilience factors (PSU 2011)

Factors	1	2	3	4	5
9 Pollution level (nutrient input)	none	low	moderate	high	very high
10 Herbivore abundance (macroalgae)	none	low	moderate	high	very high
11 Management practice	none	low	moderate	high	very high
12 Abundance of juvenile coral	none	<1 colony/100m	2-4 colony/100m	5-10 colony/100m	>10 colony/100m
13 Size of mature coral (clonal massive)	<0.8 m	0.8 - 1.0 m	1.1 - 2.0 m	2.1 - 3.0 m	>3.0 m
14 Herbivore fish diversity	1	2-5	6-10	11-14	>15
15 Abundance of herbivorous fish (a. Scardinius)	<5	5-16	17-44	45-86	>86
16 Cover factors (water mixing, upwelling, current, wave)	non-reef zone (no-reef zone, fully sheltered)	low (indirectly sheltered)	moderate (exposed to general water)	high (large face on to windward)	very high (tidal channels, patches in high)
17 Physical shading	None	some (some shading)	moderate	high	very high
18 Coral diversity (species richness)	1-10	11-20	21-30	31-40	>40
19 Coral predators (Crown-of-thorns starfish)	none	1	2-7	8-15	>15
20 Abundance/prevalence of space competitor (sponges, corals, algae, sponges, etc.)	none	<10%	10-25%	26-50%	> 50% abundance and negative impact
21 Coral Disease Prevalence (a. large sized)	none	<10 incidence	10-15 incidence	16-30 incidence	> 30 incidence
22 Abundance of top predator (a. large sized)	none	<5	5-10	11-15	>15

**Systematic spatial planning to enhance ecosystem resilience**

Representation and Replication: conducting gap analysis for each ecoregions especially critical habitats that are not currently included in formal MPA system



"Five out of six seagrass national hotspots are not protected"



**Systematic spatial planning to enhance ecosystem resilience**

**Incorporating Critical habitat:** that are not currently included in formal MPA system



*"Dugong habitats are not comprehensively protected"*

**Systematic spatial planning to enhance ecosystem resilience**

Incorporating other critical habitat that are not currently included in formal MPA system

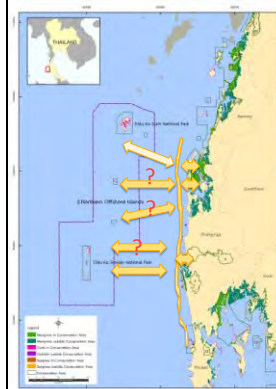
*"Some sea turtle nesting sites are still not well protected including Leatherback turtle"*

**Systematic spatial planning to enhance ecosystem resilience**

Incorporating other types of Marine Managed Areas into conservation planning (different rules and jurisdiction)

- Environmental Protection area (coastal management)
- Fisheries management area (temporal closure)
- Trawling and Push net free zone (3-5 km from shoreline)
- Fish&Plant sanctuary
- Community-based conservation area (not formally recognized)



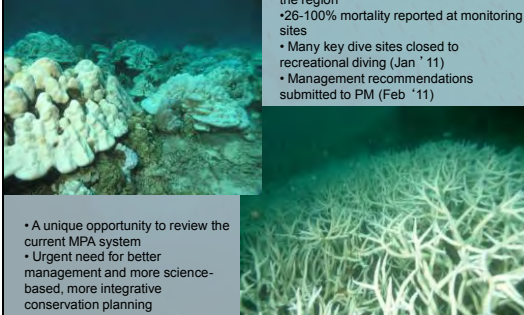
**Systematic spatial planning to enhance ecosystem resilience**

Connectivity: enhancing marine connectivity into MPA system

*Ecological corridor areas/stepping stones to enhance marine connectivity e.g. newly discovered reefs, river mouth areas*

**Unprecedented mass coral bleaching in Thailand: summer 2010**


Pictures by Niphon Phongsuwan PMBC



- 30-90% of coral reefs bleached across the region
- 26-100% mortality reported at monitoring sites
- Many key dive sites closed to recreational diving (Jan '11)
- Management recommendations submitted to PM (Feb '11)

• A unique opportunity to review the current MPA system  
 • Urgent need for better management and more science-based, more integrative conservation planning

There is an urgent need for transboundary conservation and management with Myanmar to protect Thailand's coral MPAs



Burma Mergui Archipelago

Thailand Mu Ko Surin




**Transboundary issues**

Burma reefs are likely to be source for recovery of Thai reefs after bleaching as early evidence post-bleaching survey has shown

Burma fisheries of top predators are suffering from unregulated shark selling in Thai side

There is a need for large scale marine spatial planning in order to build a resilient marine ecosystem for both countries

Multi-national mechanism exist through BOBLME






**Situation Analysis and Current State of Marine Protected Areas in Myeik Archipelago**  
*Dr. Panwad Wongthong*

Coastal And Marine Consultant IUCN Asia Regional Office 63 Sukhumvit 39,  
 Wattana Bangkok 10110, Email: [prae.panwad@gmail.com](mailto:prae.panwad@gmail.com)

**Situation Analysis and Current State of Marine Protected Areas in Myeik Archipelago**




Dr Panwad Wongthong  
 Coastal and Marine Consultant, IUCN

**IUCN projects in Myeik Archipelago**

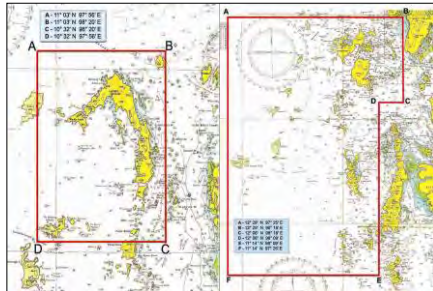
- Situation Analysis
  - Reviewing secondary data
  - Interviews with key people
  - Ground truth surveys
  - Biophysical and socio-economic characteristics
  - Current and future threats
  - Existing management interventions
  - Recommendations
- Next step:
  - Input from Myanmar
  - Workshops

**Existing MPAs in Myeik Archipelago**



- Lampi MNP
- Under both the MOECAP and MLFRD
- Key protected resources: coral reefs, mouse deer and Salone ethnic culture
- No fishing within 2 miles offshore from the low water level around Lampi Island

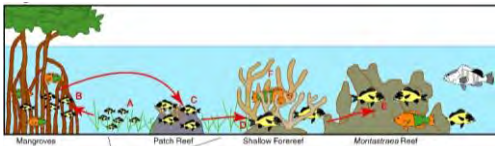
**Existing MPAs in Myeik Archipelago**



Proposed Shark Protected Areas

**Why protect these habitats ?**

- Nursery areas
- Feeding and spawning areas -- > replenishment
- Fishing grounds
- Transboundary stock
- Habitat connectivity
- Source of income
- Food security



**Issues and Concerns**

- Overfishing, IUU fishing, land-use change and a growing number of tourists and tourism development are major threats.
- No restriction, protection measures, management actions or monitoring programs.
- Limited awareness/acceptance of local people.
- Limited capacity of DOF to interdict and arrest illegal fishers, except in partnership with the Myanmar Navy or Army Coastal Defense Group.

### **Key Take Home Messages**

- Regional interest to protect and restore the critical habitats and fishing grounds for food security and sustainable livelihoods.
  - Transboundary marine conservation and management is needed.
  - Conservation efforts should protect connected corridors of mangroves, seagrass beds and coral reefs.
- Maintaining MPAs:
  - Optimum size of MPAs? -- A few large MPAs or a mosaic of MPAs?
- The need for regulations, management measures and effective patrolling and enforcement.
  - Implementation of no-take areas?
  - Set aside certain areas for protection or for tourism activities?
- Engage sustainable tourism approach into fishery management and coastal management as a whole.

### **Marine Protected Areas Workshop**

Yangon or Kawthoung

4-6 August 2014

# Annex 13

## Preliminary data survey cruises in the Myeik Archipelago

Dr. James True

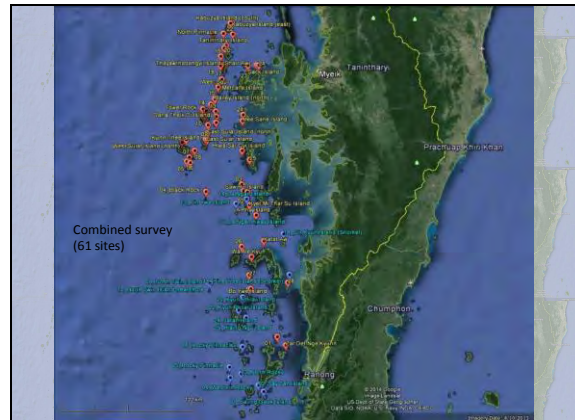
Lecturer, Department of Biology, Prince of Songkla University Hat Yai, Songkla 90112

Email : jaydeeteel@gmail.com, james.tr@psu.ac.th

**Preliminary data from Survey Cruises to the Myeik Archipelago**

SCUBA surveys of fringing reefs supported by IUCN/BOBLME and FFI  
February & March 2014

James True, Prince of Songkla University, Hat Yai



**The IUCN/BOBLME cruise concentrated on the "Liveboard Route"**

These are sites that have high public awareness and accessibility from Thailand

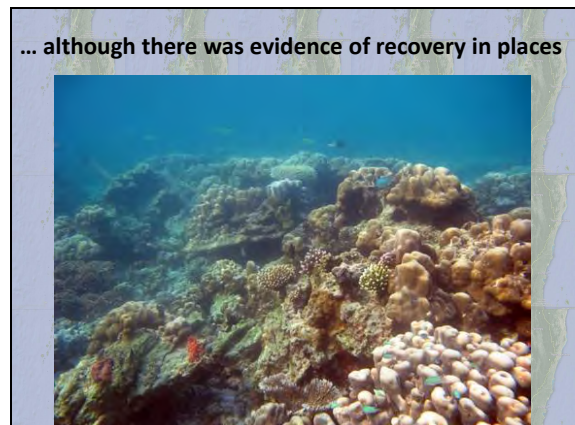
The "outside loop" has the reputation of high biodiversity & biomass – especially amongst the pelagic elasmobranchs and teleosts

Recreational divers have long reported instances of "dynamite fishing", however – particularly in the southern region; NGOs at Lampi MNP have also reported this

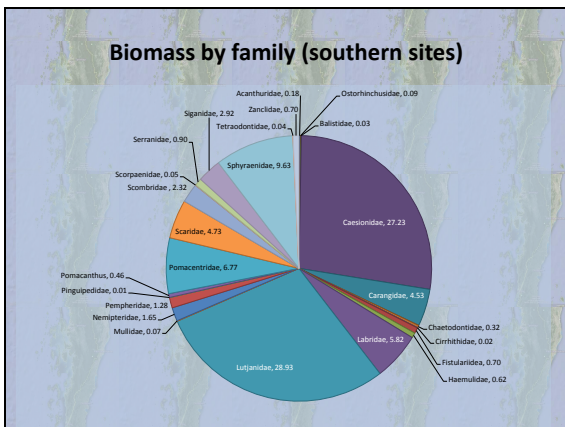
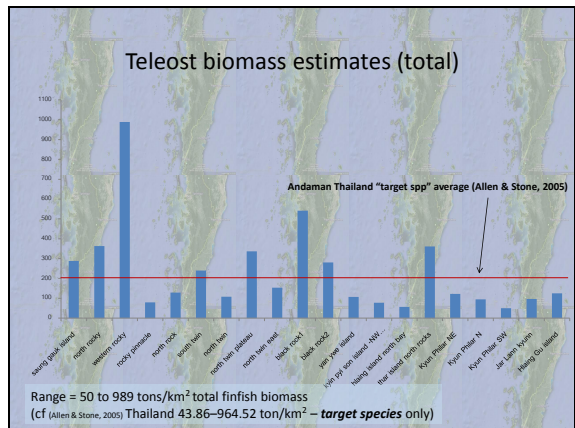
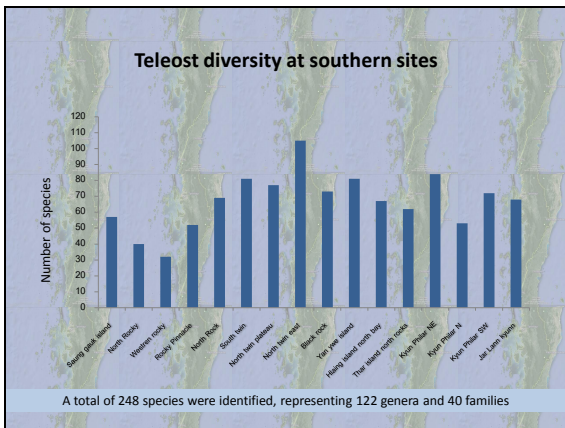


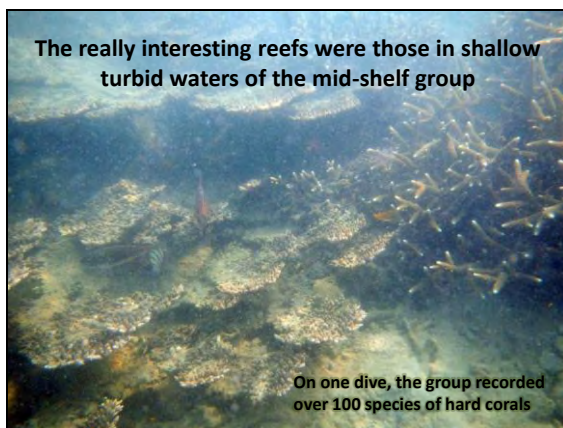
site no	Disease (%)				Health indicators (%)				Legend
	WS	BrB	GA	PR	Pred	BI	AO	PM	
1	-	-	-	10	60	-	-	30	WS= White syndrome
2	-	-	50	40	15	-	-	40	BrB= Brown band disease
3	10	-	60	20	-	-	-	-	GA = Growth Anomaly
4	-	-	-	5	5	-	-	-	PR = Pigmentation response
5	15	-	-	30	-	10	-	30	Pred= Predation scar
6	-	-	-	30	-	-	-	-	BI = Bleaching
7	-	-	-	5	-	5	15	10	AO = Algal overgrowth
8	5	-	5	70	50	10	-	-	PM = Partial Mortality
9	-	-	-	-	-	5	-	-	
10	-	-	-	-	-	5	10	20	
11	-	-	-	50	-	5	30	-	
12	30	-	40	60	-	-	30	40	
13	-	15	-	-	-	10	-	-	
14	-	10	-	5	15	10	-	-	
15	-	-	-	-	10	-	-	-	
16	30	-	10	50	-	-	10	30	
17	5	-	-	70	10	-	-	40	
18	15	-	5	60	50	10	10	15	
19	5	-	-	-	5	-	-	-	
20	20	-	-	40	30	10	30	30	
21	-	-	-	35	-	30	10	40	

**Coral Health indicators showed that many reefs were under pressure from various stressors**





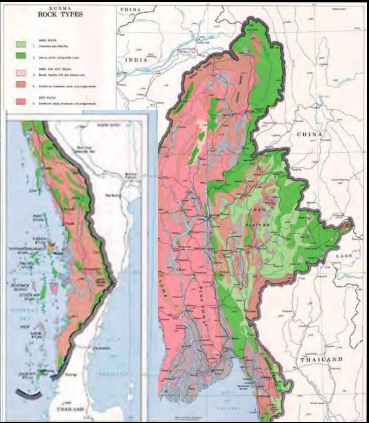






Many of the observed patterns in diversity (and reef type) appear to be related to geology

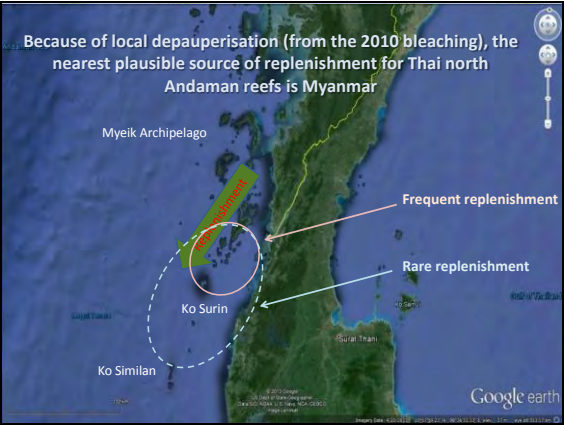
This makes it quite difficult to make broad generalisations (e.g. Inshore/offshore), and means not all sites can capture high levels of diversity



Replenishment patterns in the Andaman Sea appear to be correlated to surface currents



Because of local depauperisation (from the 2010 bleaching), the nearest plausible source of replenishment for Thai north Andaman reefs is Myanmar





**Port Monitoring and Inspection for the Landing of Catch in Myeik Archipelago**

*Mr. Myint Shwe*

Assistant Director, Ministry of Livestock Fisheries and Rural Development Office (36),  
Nay Pyi Taw, Myanmar, Email: myintshwedofgmail.com

The Sub-regional Consultative Meeting on the Collaborative Fisheries Management Around the North Andaman Sea/Myeik Archipelago  
27-28 May, 2014, Phuket Province, Thailand

**PORT MONITORING AND INSPECTION  
FOR THE LANDING OF CATCH IN  
MYEIK ARCHIPELAGO**

DEPARTMENT OF FISHERIES  
TAININTHARYI REGION

**Andaman Sea and the Dynamic Myeik Archipelago**

- Many marine scientists called Mergui Archipelago is the last Eden of the World, because all archipelago around the world were exploited by the human since many years ago. The archipelago is only one of the Andaman sea.
- The Myeik archipelago is composed of some 800 islands in Myanmar.
- Insular waters are characterized by an abundance of coral reefs (an estimated 31 genera and 61 species were identified by Myanmar marine scientist.
- Mergui Archipelago is famous for their sharks, rays, coral reef and other marine creature.

**In Tainintharyi region, Inshore/Offshore vessels based on at Tainintharyi region for operation to fishing grounds.**

**Operation of Offshore fishing vessels at Tainintharyi Region, Totalling (1268) vessels operated on (6) kinds of fishing methods.**

No	Type of Fishing Gear	Numbers of Fishing vessel
1	Trawl	574
2	Purse Seine	216
3	Squid Cast Net	345
4	Drift Gill Net	3
5	Trap	104
6	Long Line	26
<b>Total</b>		<b>1268</b>

**Port Monitoring System for Fishing Vessels**

Check in, check-out of Off-Shore Fishing vessels in Myeik archipelago are as follow:

(1) Local off-shore fishing vessels	-	1268
(2) JV off-shore fishing vessels (Myeik)	-	5
(3) Carrier Vessels	-	46

**Management Measures**

Enforcement agencies with particular activities are listed as:-

- ❖ **Inspection authority at shore**
  - \* Department of Fisheries
  - \* Myanmar Port Authority
  - \* Myanmar Custom
  - \* Immigration Department
  - \* Department of Marine Administration
  - \* Myanmar Police Force
- ❖ **Inspection at sea**
  - \* Myanmar Navy
  - \* Myanmar Coast Guard

### Port Monitoring System for Fishing Vessels

#### Inspection at shore

In Myeik, there is 1 Check Point and 9 landing site. As a daily check-in, check-out fishing vessels, round about 20 fishing vessels a day.

### 9 of Port Landing Sites in Myeik

### Management Measures

#### Inspection at port

- All fishing vessels (national and non nationals) are subjected to inspect at the port.
- The inspection is undertaken by a team composed with DOF, Immigration, Port authority, Custom, Police Force etc.
- The fishing vessels are inspected in priority of port calling
- Generally the port receive registered foreign vessels: JV or licenses fishing rights
- None has been reported on the request of unregistered (illegal) vessels in Myanmar for the port
- There has been no request of vessels registered in foreign countries for one of the port in Myanmar, other than JV or fishing right licensed with Myanmar.

### Port Monitoring System for Fishing Vessels

#### Check out vessel

When Fishing vessels want to go-out to the fishing ground, have to apply the sailing order to the DOF.

The members of OSS ( One Stop Service) inspect the fishing vessels just before depart to the fishing ground.

- Fishing Licence
- Fisherman Registration Card.
- National Registration Card .
- Vessel Registration Certificate.
- Life Saving Appliance (LSA )
- Navigation Certificate.
- Mesh size of Fishing Net.

### Port Monitoring System for Fishing Vessels

### Port Monitoring System for Fishing Vessels

#### Sailing Order

After inspection abovementioned regulation, the of OSS issued the Sailing order.

အမှတ်	အမျိုးအမည်	အရွယ်	အမျိုးအမည်	အရွယ်
၁				
၂				
၃				
၄				
၅				
၆				
၇				

### Port Monitoring System for Fishing Vessels

#### Sailing Order

အမှတ်	အမျိုးအမည်	အရွယ်	အမျိုးအမည်	အရွယ်

### Port Monitoring System for Fishing Vessels

#### Check in

When the Fishing Vessels come back to the Check-Point, as a OSS members inspect again below:

- Whether the Fishermen those come-back to Check Point.
- Check the Fishing log book.
- Whether the fishing vessels have operated in the fishing ground over fishing period.
- Inspection the species of catching.
- After inspection above mentioned, allowed to fishing vessel to proceed their landing site.

### Port Monitoring System for Fishing Vessels

(1) Whether the Fishermen those come-back to Check Point.

### Port Monitoring System for Fishing Vessels

(3) Inspection the species of catching.

### Management Measures

❖ **Inspection at sea**

- \* Myanmar Navy
- \* Myanmar Coast Guard

### Word colour on line colour of fishing vessel

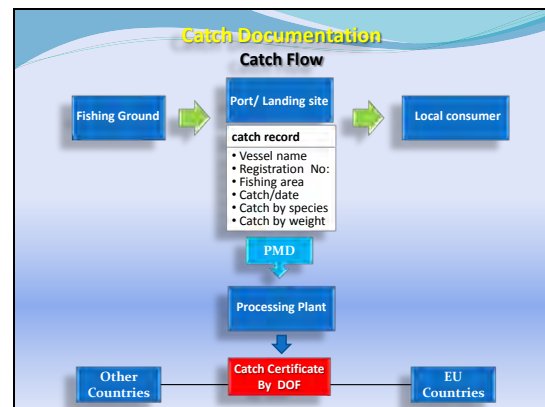
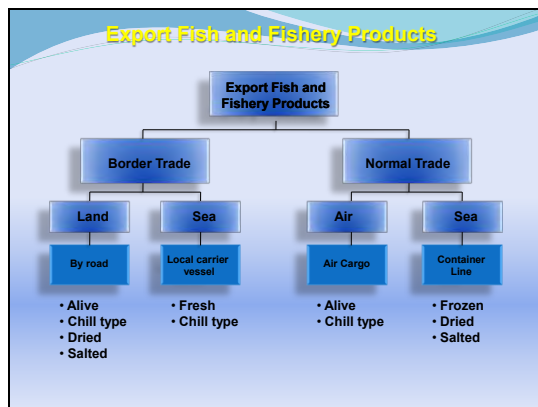
Description	Place of Licence Issue	Word colour on Line Colour of Hull
Off Shore Fishing Vessel	Taninthayi	White
	HO/Ayeyarwaddy/Mon	White
	Rakhine	White
Off Shore Carrier	Local Carrier	Red
	Joint Venture	Red
Foreign Fishing	OTS (Long Line, Squid, Trap)	Red
	Fishing Right	White

### Foreign Carrier Vessels

When Foreign Carrier vessels want to go-out to other countries have to apply the following document to the members of OSS for inspection the Carrier vessels.

(1) Invoice, Packing List	
(2) Export Declaration (ED)	Customs Department
(3) Export Licence (EL)	Department of Border Trade Bank
(4) TT/ Credited	
(5) Foreign Fishing Vessel Licence	Department of Fishery
(6) Mates Receipt, Post Clearance, Shipping Bill for Free Goods, Export Manifest	Myanmar Port Authority
(7) Certificate of Clearance	Department of Immigration Company
(8) Co.Ltd Letter and Crew List	Department of Fisheries
(9) Sailing Order	

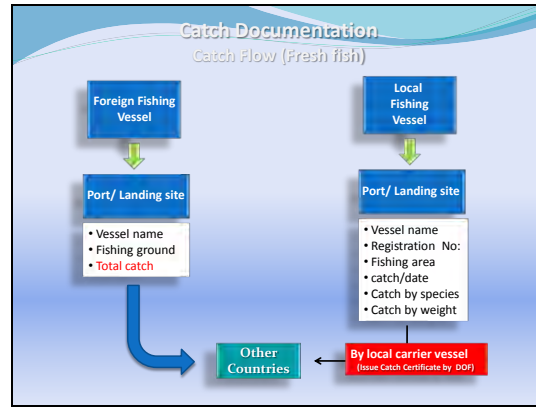
### Foreign Carrier Vessels Licence





### ISSUE CATCH CERTIFICATE

- The export of marine product to EU countries from Myanmar has to be declared that the fish caught was not from the I.U.U vessels in the Catch Certificate and the EU countries have accepted according to their EC regulation.
- Catch made from Myanmar that from the date of 31<sup>st</sup> March 2010 are authorized to export to the EU when accompanied by a valid Catch Certificate.
- In order to issue Catch Certificate the following is required:
  - The Company that will export to the EU must apply to the DOF for the C/C.
  - In the application ED/PMD to be attached together.
  - The PMD will be inspected at the Landing Site and recommendation given.
  - Compile the list of each vessel catches from PMD that have attached with C/C.
  - PMD must be as the evidence of the export document and case file opened and C/C will be issued.
  - All the case files are filed and kept case by case for each C/C issued.



### Catch Documentation

Product Movement Document (PMD)

The image shows two examples of Product Movement Documents (PMD) from Myanmar. Each document contains a header with the Ministry of Fisheries and Aquaculture, a table with columns for vessel name, registration number, fishing ground, and catch details, and a footer with official stamps and signatures.

### Catch Certificate

The image shows three examples of Catch Certificates. An arrow points from the text '3. List of vessel that have provided catches and the quantities by each vessel' to a table listing vessels and their catches.

3. List of vessel that have provided catches and the quantities by each vessel

### Procedure of Normal / Border Trade Inspection

- Assessment of Application Form
  - Must include
    - Application Form
    - Sales Contract
    - Price Confirmation
    - Invoice
    - Packing List
    - Company Registration
    - Collecting License
    - Factory Registration License
    - Membership of UMFCCI
    - Payment voucher for Inspection

### Environmental Management

Myanmar has a number of sectorial laws that are related to protecting and conservation of natural resources and control of pollution. They are

- The Factories act 1951 controls factories involved with chemicals, particularly hazardous or toxic chemicals
- The Forest Law 1992 declared all mangroves forests as protected areas. Fishing within three hundred yards around mangrove area is strictly prohibited
- The pesticide law 1990 monitors and controls the selection, storage, transportation and use of pesticides
- The Myanmar Mines law 1994 controls safe disposal of waste, tailing and fumes
- The Myanmar Pearl Law 1993 protects and conserves water areas of pearl; oyster fishing ground from destruction and oysters from over fishing
- The Ministry of Industry (1) issued a standing order in 1995 on water and air pollution for prevention of pollution and damage to the environment by waste discharged by factories.

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### Environmental Management

The Government of the Union of Myanmar formed the National Commission for Environment affairs (NCEA) in February 1990. NCEA serves as the national focal point and coordinating agency for environmental matters. The Commission was established with the following objectives.

- To develop sound environmental policies in order to safeguard the environment and prevent its degradation
- To set environmental standards, rules and regulations for pollution control
- To formulate environmental plans, programmes and strategies
- To promote environmental awareness and public participation in environmental activities

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### Environmental Management

In the area for achieving sustainable management of coastal, marine and island ecosystems, Myanmar Agenda 21 aims to address the following activities.

- To promote research and monitoring programmes
- To develop and implement strategies for the sustainable use of marine living resources
- To strengthen legal and regulation framework
- To enhance education and awareness campaign
- To conserve marine biological diversity
- To establish a coordinating mechanism
- To promote coastal zone management and development

30

### Management Measures in Fisheries

**For Resources Conservation ;**  
**Under the Fisheries Laws,**

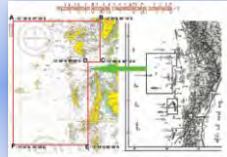
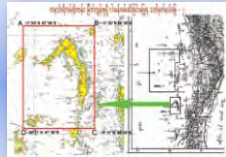
- Lampi island of Tanintharyi coast, as Marine Park and Marine Reserve.
- around all the islands area ;  
 (announced as fisheries protected areas )  
 whereby collection of marine fauna and flora is prohibited.

31

### Conservation Activities (Shark)

The Department of Fisheries determined to protect Areas for shark fishing under the following purposes;

1. The most biologically venerable creature in the ocean.
2. Grow slow, mature late and bare few young.
3. Some species do not produce until age 12 to 20 years.
4. Play the important role of top predator in Ocean eco-system.
5. Keep the Ocean balance.

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### Related Marine Fisheries Research

- Data Collecting on Some Aquatic Animals (Sharks, Turtles, Mammals) Cooperate with SEAFDEC;
- Marine Fisheries Resources Survey with Assistant of Southeast Asian Fisheries Development Center (SEAFDEC);
- Commercially Important Species of Small Pelagic Fish Tagging Programme in Andaman Sea and South –China Sea with Assistant of SEAFDEC
- Ayeyarwady Dolphin Survey Cooperates with Wildlife Conservation Society (WCS);
- Mariculture practices such as Seaweed, Seabass and Groupers.
- Capacity Building on Improving Fishery Statistical System in Collaboration with SEAFDEC;
- Biodiversity conservation with the assistance of Biodiversity and Nature Conservation Society (BANCA);

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### Conservation Activities (Mangrove forest)

- In order to control deforestation and loss of biodiversity, the Department of Fisheries although the department forest has being implemented the environmental sustainable food security and micro-income opportunities in the Ayarwaddy (mangrove) delta project (MYA/96/008) in delta area by collaboration with FAO And mangrove forest rehabilitation activities.
- The Department of fisheries also prohibited strictly, fishing, catching within 300 yards around mangrove area for marine fisheries resources conservation.

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### Conservation Activities (Mangrove forest)

Mangrove forest protect and re-plantation program ,collaboration with Forest Department, Local authority, NGOs and Local people.





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### Project

**The BOBLME Project will implement the activities at Mergui Archipelago such as:**

- Shark species data collection, (Shark Fisheries Protected Area, Lampi & Ross)
- Indian makereel tissue collection & DNA identifying
- Hilsa fisheries statistics data & information collecting
- Coral & Seagrass data collection & conservation
- Marine mammal conservation, Dolphin, Dugong
- Integrated Coastal Management (Lampi)
- Developing Marine Protected Area (Lampi)
- Pollution

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### Prohibitions for IUU

- shall not fish without a licence
- shall not engage loading, unloading, processing and transferring of fish and harassing, catching, killing, storing, transporting, processing and transferring of fishes which DOF has prohibited
- shall not keep or use explosive substances, poisons, chemicals and other substances.
- shall not (a) fish in the fishing grounds (b) use fishing implements (c) fish in the fishing period (d) fish specific types of fish not permitted in the licence
- shall not harass, assault or hurt the Inspector while discharging his duties.
- shall not dispose of from aboard the fishing vessel living creatures or any material to cause pollution of the water body or to harass the fish and other marine organisms.
- shall not fail to comply with any duty of Master
- shall not conceal or dispose the fish, fishing implement, other material or money while the Inspector is examining

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### IUU Fishing Issues

National and foreign fishing vessel	Inshore fishing vessel
1. Contravention of the reporting procedure	1. Unregistered & Unlicenced vessel
2. Fishing in unauthorized areas	2. Use of prohibited fishing method
3. Over limited fishing days	3. Fishing in closed season and closed areas
4. Transshipment at the sea	
5. Encroachment of the foreign vessels	

38

## MCS Network initiatives

### The Gulf of Thailand sub-region (Cambodia, Malaysia, Thailand and Vietnam)

- Initiated the development of MCS network, starting with information sharing and suggested that "Institutional Matrix" be developed.

### The Andaman Sea sub-region (Indonesia, Malaysia, Thailand, Myanmar and India)

- Initiated the development of MCS network, information sharing and introduced the "Institutional Matrix".
- MCS network to be further developed and the Institutional Matrix showing key institutions to be included in the further development of MCS network.

## Constraint

- Using distrusted fishing gear and methods and impact on environment.
- Mangrove dependent economic activities vital to many coastal peoples in Myanmar. Firewood and charcoal are the main products extracted
- the difficulty in having access to remote area, lack of adequate infrastructure, insufficient manpower and lack of trained personnel are some of the major constrained in effective management of the resources.
- Lack of Financial support: scientific surveys of fish population in large ecosystems are a problem in Myanmar because of the limited budgets, equipment and qualified people. These constraints need to be resolved through internal arrangement.
- Cooperation and coordination between the ministries of forest, agriculture, irrigations, energy, fisheries and the Myanmar navy are essential to prevent further loss of fisheries and promote sustainable development of coastal fisheries resources.

40

## Conclusion

- Strategies and principles of marine fisheries management may not be similar among the countries as they possess different climatic conditions, oceanography, culture and national policies. Any way experiences and reviews can be exchanged to approach towards better management.
- World of today is facing world climate change and global warming that may cause negative impact on marine ecosystem resulted in deterioration of habitats and behavior, migration pattern of marine aquatic organisms. In this regard, identification of selective indicators for sustainable development and MCS needs to be carefully conducted.
- Development and expansion of marine aquaculture needs to be prioritized within the sustainable basis.
- Marine resource conservation needs to be carried out through closed area, closed season and restricted sizes.
- There needs to develop marine fishery communities based on related regulations and enforcement by fishery concerned authorities.

## CONCLUSION

Motivation of MCS system is important for effective implication of fisheries management measures.

Establishment of efficient MCS system is essential for effective controlling of fishing capacity and IUU fishing.

Collaboration and cooperation of adjacent coastal nations would be most effective in combating IUU fishing.

## REQUIREMENT FOR DEVELOPMENT OF COASTAL MANAGEMENT

- Assess the potential of marine and coastal living resources including under-utilized and unutilized stock and species;
- Conduct systematic research;
- Encourage research and develop long term monitoring program;
- Development and implement strategies for the sustainable use of marine living resources;
- Take appropriate measure to increase the availability of coastal and marine living resources;
- Encourage research and develop long-term monitoring programmes database and information sharing with international conservation communities for technical and logistic support.

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## Annex 15

### Update on Promotion of Effective Management of Fishing Capacity and the Efforts to Reduce Illegal and Destructive Fishing in Andaman Sea

*Mr. Pirochana Saikliang*

Senior Expert on Marine Fisheries, Marine Fisheries Research And Development Bureau  
Department of Fisheries Kaset-Klang, Chatuchak Bangkok 10900, Thailand  
Email: pirochas@hotmail.com

**The Sub-regional Consultative Meeting on the Collaborative Fisheries Management around the North Andaman Sea/Myeik Archipelago**

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**27 – 28 May 2014**  
**Phuket, Thailand**


**Pirochana Saikliang**  
Senior Expert on Marine Fisheries

**Marine Fisheries Research and Development Bureau,  
Department of Fisheries, Thailand** 1

 **Promotion of more effective management of fishing capacity and to reduce illegal and destructive (combat IUU fishing in the North Andaman Sea)**


1. MCS Networks and the establishment in the North Andaman Sea
2. Port Monitoring and Monitoring of Landing by “neighboring” vessels
3. Catch documentation and certification/validation

2

 **1. Strengthening legal, administrative and policy frameworks**

The present Fisheries Act of 1947 was obsolete and the legal principles and concept can't keep up with contemporary fisheries management and sustainable development.

Legal officer was assigned to study the Model Fisheries Legislation and report the findings of its usefulness to the Department. However some legal perspective in particular port state measures and control were already been applied and added to the ongoing process in the Parliament to scrutinize and improve the draft new Fisheries Act.

 **2. Capacity building**

Fisheries Department through the Fisheries Management and Administration Bureau developed training program on fisheries inspection for fishery officers who are currently working in marine patrol and fisheries inspection.

The program covers both MCS theory and practices including surveillance, arrestment and detention of the illegal activities in the field.


The 40 officers are trained in this course in each year.

 **3. Strengthening regional/international cooperation**

Thailand has not yet be able to designate specific ports to which foreign fishing vessels may request entry due to the fact that such action is not currently permitted by the law. The pilot port model is developed and running.

Thailand in collaboration with FAO have implemented pilot port model at Phuket Province (FMO fishing port). The program is on-going.

4 times training was carry on.

 **3. Strengthening regional/international cooperation (Cont.)**

Thailand has monitored a carrier flying the Cambodian flag which was notified by IOTC that it conducted illegal transshipment of fish caught in the Indian Ocean.

An informal meeting among the countries concerned was conducted in Manila to view the draft. The CC will have an opportunity to consider it.

Thailand has monitored these IUU fishing vessels after receiving notification. The list was urgently submitted to relevant authorities to collaboratively monitor whether it enters our national jurisdiction or has a port call.



### 3. Strengthening regional/international cooperation (Cont.)

Thailand has no information to share on the RPOA website.

Template was received and the report was prepared and submitted to the RPOA Secretariat.

Thailand dispatched a participant to attend the workshops.

Thailand participated in various workshops and training course conducted by SEAFDEC throughout the year.

The RPOA Secretariat will report the result of this action.



### 3. Strengthening regional/international cooperation (Cont.)

1. Seminar on PSM pilot project, during 30 - 31 May, 2013 at Kantary Bay, P



2. Second meeting on the PSM committee meeting, July 2, 201



### 3. Strengthening regional/international cooperation (Cont.)

1. Seminar on PSM pilot project, during 30 - 31 May, 2013 at Kantary Bay, P



2. Second meeting on the PSM committee meeting, July 2, 201



### 3. Strengthening regional/international cooperation (Cont.)

5. IUU fishing training for stakeholder, Sept. 10, 2013

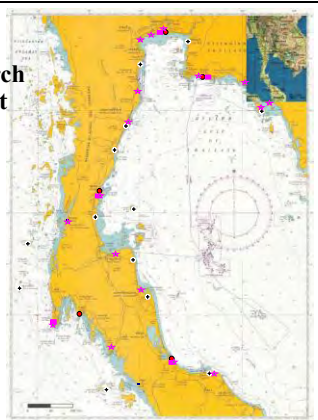


The 4 months implement for project testing



### Site of Marine Research & Management Unit

- Marine Fisheries Research.....
- Fisheries Management.....
- ✚ Fisheries Management Unit.....
- ★ Fisheries Radio Station.....



### Monitoring & Evaluation of Conservation Measure Committee

1. Public Relation Working Group
2. Control & Enforcement Working Group
3. Monitor on the Prosecution Working Group
4. Technical Evaluation Working Group



### Port Monitoring

1. Vessel registration and Fishing gear licensin
2. Port Inspection
  - 2.1 Fishing gear
  - 2.2 Fish species
  - 2.3 Cites species

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### Catch Documentation

1. Logbook
2. Imported fish species
  - 2.1 Logbook or F12
  - 2.2 MCTD (Marine catch Transshipments Document)
  - 2.3 Catch Certification for Imported Fishes

14





## Product Certification

1. Product sample  
(Fish Inspection and Quality Control Division)
2. Health Certification
  - 2.1 Songkhla
  - 2.2 Bangkok

15



***Thank you very much***



# Annex 16

## Catch Reporting Fisheries Enforcement in Trans-boundary Areas of the European Union

Ms. Jenny Nord

Result Monitoring Expert from SEAFDEC Secretariat

### Catch reporting and fisheries enforcement in trans boundary areas of the EU.

PHUKET, 27<sup>TH</sup> OF MAY 2014





### CONTENT

1. Background , general legal framework and fisheries specific.
2. Fisheries control regulation (MCS regulation).
3. Catch reporting when landing in another member country.
4. Control and enforcement in cross boundary areas.



### Background

- ▶ The EU has 28 Member States.
- ▶ Treaty between Member States in which agreement for cooperation is reached.
- ▶ The EU has different powers depending on the political area.
- ▶ The Common Fisheries Policy (marine fisheries) – EU has exclusive competence.
- ▶ Member states take the decisions together by voting procedure.

### EU fisheries legislations

- ▶ The Common Fisheries Policy overarching legal framework for fisheries:
  - Capacity ceilings
  - Quota or fishing days regulations
  - Fisheries control and enforcement etc.
- ▶ Detailed rules on the implementations are given for each topic in separate regulations.



### Fisheries control regulation

- ▶ Applies to all vessels of the EU on national territories, EU-waters and international waters.
- ▶ Fishing license
- ▶ Vessel Monitoring Systems
- ▶ Control programs incl. at port and at sea inspections
- ▶ Catch reporting in fishing logbooks and sales notes



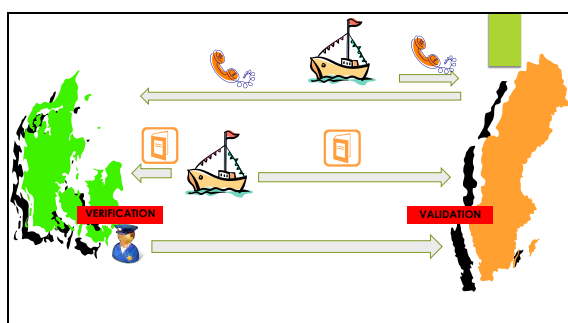
### Catch reporting when landing in another member country.

**Prior notification** before landings (fishing vessels >12m).

**Catch logbook:** reported to the flag state and the port state of the vessel within 48 hours (paper) or immediate after the fishing trip (electronic).

**Verification of logbook data:** The port state will carry out random port inspections subject to all fishing vessels (also foreign) to verify that the logbook data is correct. The inspection reports are sent back to the flag state.

**Validation with other data (cross-checking)** is carried out in the flag state.



### Control and enforcement in trans-boundary areas


**At shore inspections/landings inspections:** Carried out by the port country subject to all vessels.

**At sea surveillance:**

- ▶ all countries are required to survey their national waters.
- ▶ If foreign vessels are detected report is sent to the flag state.

**Inspection at marketing:** national territory.

**Threatened species:** 20 % landings, 5 % marketing, at sea surveillance flexible benchmark.



## Collaboration between countries

- ▶ Working groups of ministries – political issues.
- ▶ Working groups of experts – technical issues.
- ▶ Exchange of practices: Inspector programs and study trips.
- ▶ European Fisheries Control Agency – level playing field.

# Annex 17

## Community Co-Management Enhancing communities' resilience and capacity to adapt to change (Thailand)

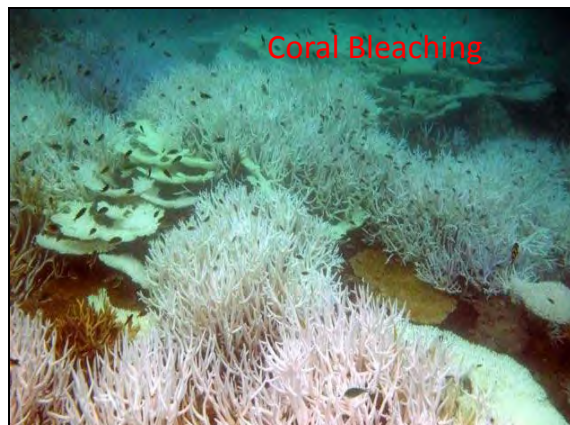
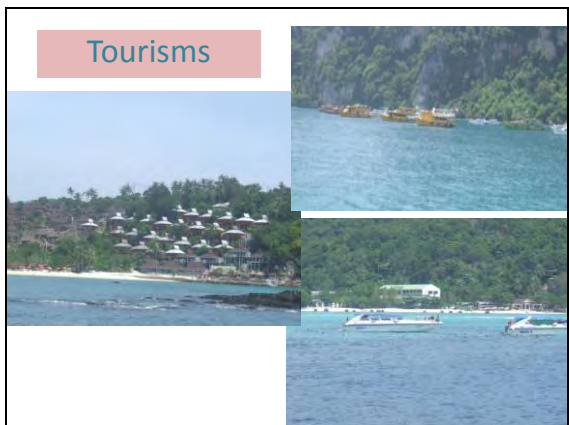
Mr. Sompoch Nimsantichareon

Consultant. No. 3, Kai Pitak Road Kantang District Trang Province 85000  
Mobile : +66 8 9973 1229, email : sompc\_nim@hotmail.com

**Community Co-Management**

Enhancing communities' resilience and capacity to adapt to change  
(Thailand)  
27 May 2015

Sompoch Nimsantichareon



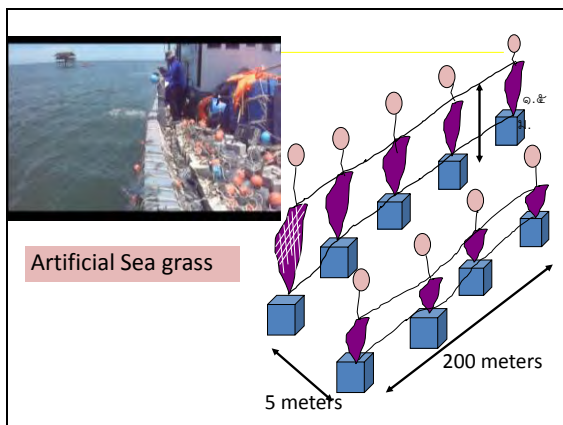
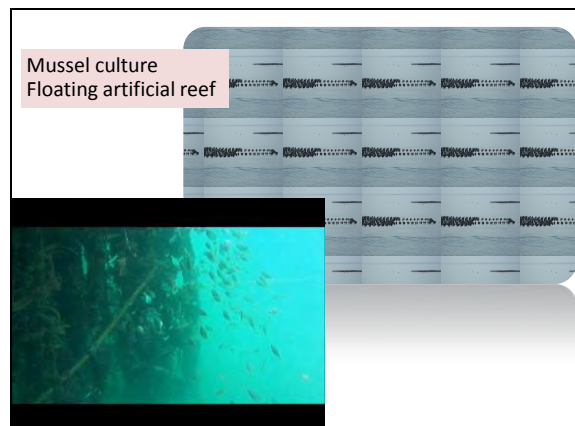
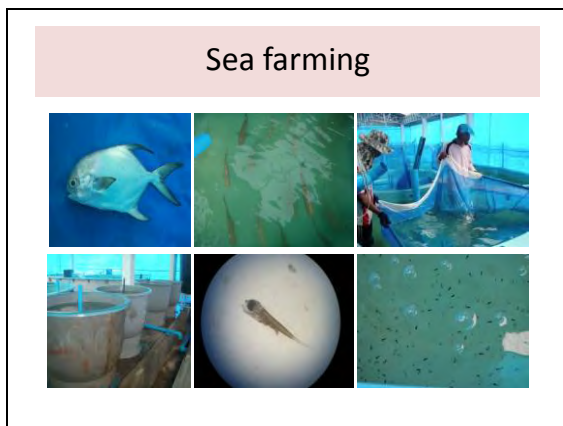
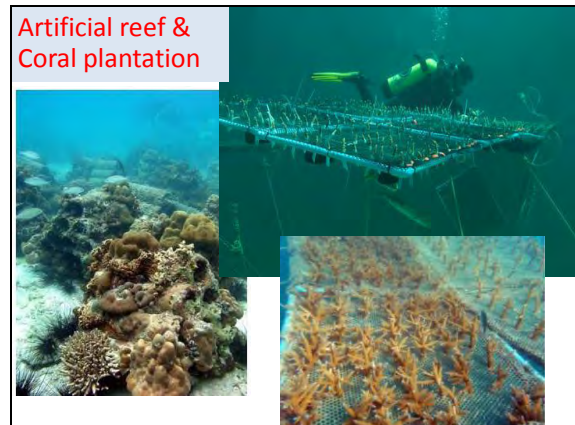


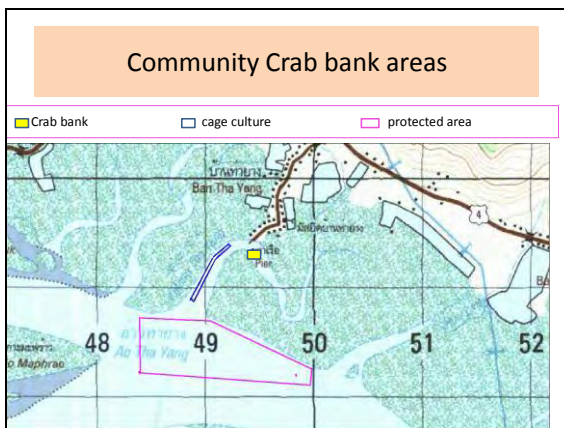
## Conservation Habitat

Community Protected areas  
Mangrove  
Sea grass  
Coral  
fishing ground

## Recovery fishery resources

- Mangrove restoration
- Coral plantation
- Sea grass plantation
- Artificial Sea grass
- Artificial reef or fish house
- Fish releasing
- Marine Bank





- ### Increase value
- Size selection
  - Post harvest
  - Processing
  - New product
  - Ecotourism & Education

- ### Knowledge management
- Collecting Data
  - Sharing information and experience
  - Awareness
  - Information transfer

- ### Monitoring and evaluation
- Community Base monitoring  
Academic monitoring
- Community Funding  
Government Private sector fund  
Community activity fund



## Networking

- Meeting in community
- Meeting among community
- Meeting with government office
- Study tour

## Cooperation

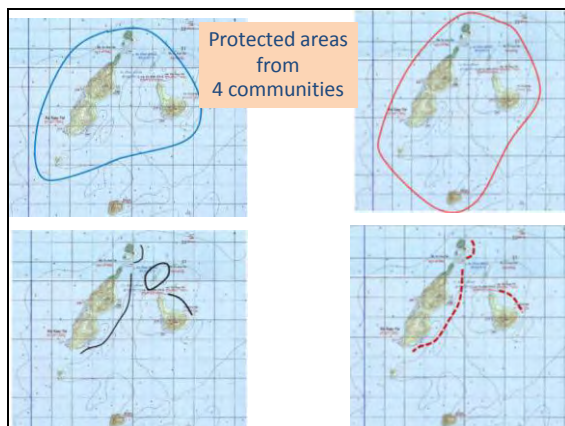
- in community
- between community
- School & Education institute
- Local authority
- Local government
- Private Sector

## Community Activity in Ranong

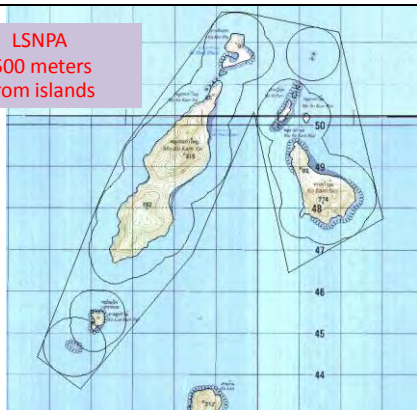
1. Bangyai Community Kraburi District  
Mangrove and fishery resources conservation  
Ecotourism
2. Tha-chang small scale fishery Muang District  
Fishery conservation areas - Crab Bank  
Fishery product
3. Hadsaidam small scale fishery Muang District  
Fishery Conservation areas  
Crab Bank
4. Chimee Community Kapoe District  
Mangrove conservation  
Ecotourism

## Community Activity in Ranong

5. Thayang small scale fishery Kapoe District  
Swimming crab conservation areas - Crab Bank  
Aquaculture Soft shell crab and fish cage culture
6. Banghin Community Kapoe District  
Meritrix shell and fishery conservation area - Mangrove conservation
7. Samnak Community Kapoe District  
Ecotourism - Fish house
8. Bang Kluay Noak Fishery Community  
Community research - Mangrove conservation  
Fish sauces



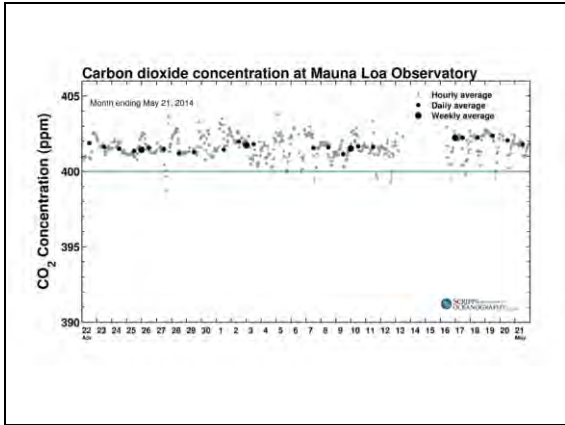
LSNPA  
500 meters  
From islands



World's chief climate scientist endorses '350' target for atmospheric CO<sub>2</sub>



**August 25, 2009** PARIS (AFP) – The UN's top climate scientist has, for the first time, backed ambitious goals for slashing greenhouse gas emissions that many climate negotiators say are beyond reach.  
"As chairman of the Intergovernmental Panel on Climate Change (IPCC), I cannot take a position because we do not make recommendations," Pachauri told AFP when asked if he supported poorer nations calling for atmospheric CO<sub>2</sub> levels to be held below 350 parts per million (ppm).



Typhoon Bopa wind speed 210 km/hour  
700 death 300 lost in Philippines 2012





**The 2<sup>nd</sup> Meeting of the Planning and Management Committee for transboundary management between Myanmar and Thailand**

*Co-facilitated by Ms. Rebeca Andong (CORIN-Asia), Dr. Magnus Torell (SEAFDEC) and Dr. Rudolf Hermes (BOBLME)*

1. The Second Planning and Management Committee Meeting for cooperation between Myanmar and Thailand on the management of fisheries and habitats in the Northern Andaman Sea and Myeik Archipelago was held on 27 May 2014 in conjunction with the Sub-regional Consultative Meeting on the Collaborative Fisheries Management around the North Andaman Sea/Myeik Archipelago. 27 – 28 May 2014, in Phuket, Thailand.
2. The Meeting was attended by officials from Myanmar and Thailand

MYANMAR	THAILAND
Mr. Myo Aung Director Ministry of Livestock Fisheries and Rural Development	Mr. Pongpat Boonchuwong Senior Expert on Fisheries Economics Department of Fisheries
Dr. Kyaw Kyaw Fishery Officer Ministry of Livestock Fisheries and Rural Development Office	Dr. Somkiat Khokiattiwong Senior Researcher Department of Marine And Costal Resource Phuket Marine Biological Center
Mr. Myint Shwe Assistant Director Ministry of Livestock Fisheries and Rural Development	Ms. Praulai Nootmorn Director Fisheries Research and Development Bureau Department of Fisheries

In addition to the representatives from Myanmar and Thailand the second PMC meeting included the following participants:

- Dr. Rudolf Hermes, Chief Technical Advisor, BOBLME Project
- Ms. Rebecca Andong, Regional Coordinator, CORIN-Asia
- Dr. Magnus Torell, Senior Advisor, SEAFDEC

3. Purpose: The 2<sup>nd</sup> Meeting of the PMC aimed to “verify and confirm” the relevance of the “working model” with regards to the establishment of the PMC. Names of appointed persons (persons to be appointed) as well as institutions to be involved in the Committee should be confirmed, identified and/or indicated. The meeting provided a venue to discuss steps to take to further establish and formalize the cooperative arrangements between Myanmar and Thailand.

4. As a means of introduction Dr. Rudolf and Dr. Magnus provided a background to the steps taken place so far in facilitating the cooperation between Myanmar and Thailand on issues of common concern with regards to the management of fisheries and habitats, including the combating of illegal and destructive fishing. Specific reference was made to the “Collaborative Management Structure for Trans-boundary Areas between Myanmar and Thailand” (WP02) that was developed during the First PMC Meeting in March 2012.

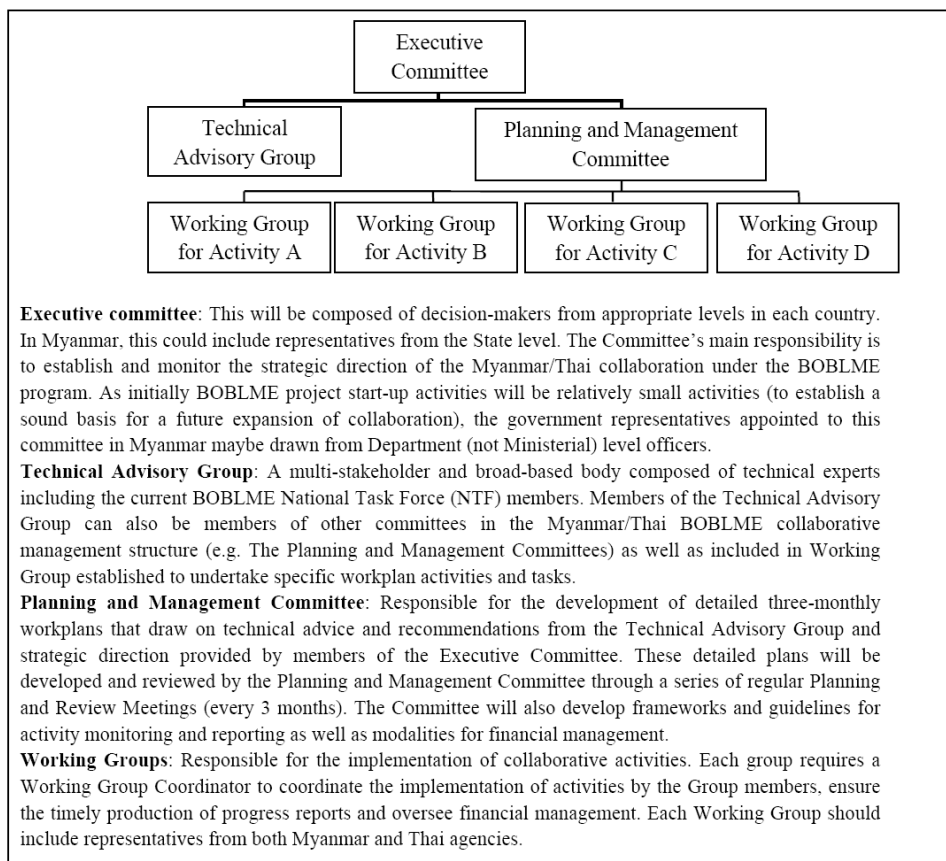
5. The group did not discuss specific activities or specific priority issues with an understand that priority actions would be elaborated in the parallel plenary meeting, but it was generally understood that the thematic focus/issues should continue to be on fisheries and habitat management, trans-boundary fish stocks, management of fishing capacity and port monitoring.

The geographical focus should remain on the Northern Andaman Sea and the Myeik Archipelago, but as need be extend north towards the Irrawaddy Delta and south towards Phuket.

6. The participants agreed that the title “Planning and Management Committee” (PMC) should be maintained to indicate the cooperative arrangement between Myanmar and Thailand. It was agreed that the Management Structure indicated in WP02 should be kept as a reference to the intended structure of the PMC for further confirmation by senior officers in Departments of Myanmar and Thailand. Suggested composition of PMC is indicated below, point 11.

**A Collaborative Management Structure for Transboundary Areas between Thailand and Myanmar**

*Presented by BOBLME Project through CORIN-Asia*



7. **Confirmation of the PCM arrangement:** The second PMC Meeting agreed that each of the countries would seek to further establish and consolidate the cooperative arrangement of the PMC through recognition and approval by the heads of key departments in Myanmar and Thailand. The structure indicated in the March 2012 Meeting (see above) should form the basis for cooperation with an appointed **Planning and Management Committee** together with established working groups or implementation groups for implementation of joint activities. The PMC would meet at least one time per year.

8. To facilitate the process of consolidation of the PMC arrangements and to strengthen the cooperation between Myanmar and Thailand the Meeting agreed that SEAFDEC should, when submitting the Report of the Meeting and the Report of the 2<sup>nd</sup> PMC Meeting to Myanmar and Thailand, include a cover letter to the SEAFDEC Council Directors for Thailand and Myanmar. The cover letter should include a request for BOBLME National Focal point to follow-up and coordinate within the DOF and other relevant Departments the designation/confirmation of the

establishment of the Committee, its roles and functions, appointments of committee members and other matters that would facilitate the work of the PMC.

*Remark:*

*National focal point of BOBLME for Thailand: Ms. Praulai Nootmorn*

*National focal point of BOBLME for Myanmar: Mr. Mya Than Tun*

9. The implementation of priority activities, exchange of information, capacity-building and development of joint management plans (see matrix developed during the meeting) will be facilitated through the establishment of joint **working groups or implementation groups**. The results achieved will be reported by the working groups to the PCM.

10. Dr. Rudolf and Dr. Magnus informed that the BOBLME Project, SEAFDEC-Sweden and CORIN-Asia are committed to support the process to strengthen cooperation between Myanmar and Thailand on fisheries and habitat management. They also indicated that other partners would be mobilized in support of priority activities.

#### 11. Composition of the Planning and Management Committee

The 2<sup>nd</sup> PMC suggested that the composition of Committee should the participation of, at least two key Departments from each Country, such as:

In the case of Myanmar:

- The Department of Fisheries (DoF)
- The Department of Environment Conservation and Forestry (DoECF)

In the case of Thailand:

- The Department of Fisheries (DOF)
- The Department of Marine and Coastal Resources (DMCR)

The members of the 2<sup>nd</sup> PMC went further and indicated a suggested set of institutions/departments that would be suitable committee members, namely;

#### Myanmar

1. Director of the Fishery Supervision and Revenue Division (DOF)
2. Head of International Relation and Project Section (DOF)
3. Director of Tanintharyi Region, DOF
4. District Fisheries Officer of Myeik District, DOF
5. Head of Marine Science Department, Myeik University
6. Director of Forest Department, Tanintharyi Region

#### Thailand

1. Director of Marine Fisheries Research and Technological Development Institute (DoF)
2. Director of Andaman Fisheries Research and Development Center AFRDEC (DoF)
3. Ranong Fisheries Officer (DoF)
4. Director of Phuket Marine Biological Center (DMCR)
5. Director of Marine and Coastal Resources Conservation Unit V (DMCR)
6. Chief of Ranong Marine Fisheries Station (DoF)



## Annex 19

### Collaborative work plan between Thailand and Myanmar

Agreed during the Sub-regional meeting between Thailand and Myanmar, held 27 - 28 May 2014

Management areas	Issues	Objectives	Activities	Target by year	Remarks
Marine Habitats	Lack of taxonomy knowledge for species identification of coral reef, sea grass and seaweeds.	<ul style="list-style-type: none"> <li>• Improve taxonomy knowledge as a mean to ensure effective management of the habitats.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building on taxonomy in coral reef, sea grass and seaweeds.</li> <li>• Conducting surveys regularly with the involvement of communities to monitor the status of habitats.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building through workshops, trainings on taxonomy in Coral reef, sea grass, and seaweeds carried out in 2015.</li> <li>• Surveys to monitor the status of habitats should be completed by the end of 2017.</li> </ul>	Check earlier surveys for baseline information
	Insufficient management of the endangered, threatened and protected (ETP) species dolphin, sea turtle and whale.	<ul style="list-style-type: none"> <li>• Improve the knowledge in taxonomy in order to ensure effective management of ETP species.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building on taxonomy</li> <li>• Training survey for Myanmar on ETP species.</li> <li>• Conducting collaborative surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building through workshops/trainings on taxonomy of ETP species should be conducted in 2015.</li> <li>• Collaborative surveys to monitor the status of resources should be completed by the end of 2017.</li> </ul>	Cooperation with GEF project, and global project, IUCN, IOSEA, Action plans exist
	Degrading mangrove, coral reefs and sea grass habitats	<ul style="list-style-type: none"> <li>• Increase the knowledge of the habitat status.</li> <li>• Restore mangrove, coral reefs and sea grass habitats (trans-boundary adjacent)</li> </ul>	<ul style="list-style-type: none"> <li>• Conducting surveys of the status of these habitats.</li> <li>• Capacity building on mangrove restoration for Myanmar officers through trainings and workshops</li> <li>• Replanting mangrove.</li> </ul>	<ul style="list-style-type: none"> <li>• Two trainings and/or workshops carried out during 2015.</li> <li>• Surveys carried out to assess the status of these habitats by the end of 2016.</li> <li>• Replanted mangroves by 2019</li> </ul>	<p>Training conducted few years ago. This can be continued</p> <p>IUCN work in Ranong, MFF and Ramsar site in Ranong</p>

			<ul style="list-style-type: none"> <li>• Coral and sea grass restoration.</li> <li>• Establishment of MPAs and management plans.</li> <li>• Development of national policy and regulations for critical habitats.</li> </ul>	<p>corresponding to an area of XX % of the size of the currently degraded area.</p> <ul style="list-style-type: none"> <li>• Corals and sea grass restored by 2019 corresponding to XX % of the currently degraded area.</li> <li>• Established and implemented MPA(s) and management plans by 2019.</li> <li>• Agreed national policy and regulations for critical habitats by 2024 (???)</li> </ul>	
	Lack of communication between countries and awareness raising of the importance of habitats (for Myanmar)	<ul style="list-style-type: none"> <li>• Improve the communication system and establish the awareness building program</li> </ul>	<ul style="list-style-type: none"> <li>• Create linkage to the Green Fin program for</li> </ul>	<ul style="list-style-type: none"> <li>• Linkage to the Green Fin program created by 2015.</li> </ul>	<a href="http://www.greenfins.net">www.greenfins.net</a> UNEP/COBSEA
Trans- boundary stocks	Lack of effective fisheries management for Mackerel ( <i>e.g. Rastrelliger kanagurta</i> and <i>R. brachysoma</i> )	<ul style="list-style-type: none"> <li>• Improve the fisheries management for Mackerel.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct collaborative trainings and/or workshops between Thailand and Myanmar concerning the:               <ul style="list-style-type: none"> <li>○ development of EAFM Plans</li> <li>○ fish- biology data collection system</li> <li>○ identification of spawning ground for Mackerel.</li> </ul> </li> <li>• Development of simple catch/fish samplings methods from the landing sites for Myanmar.</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted trainings and/or workshops by 2015.</li> <li>• Simple catch/fish samplings methods developed by 2014.</li> <li>• Agreement on collaborative management plans by 2017.</li> </ul>	Existing BOBLME Mackerel WG, Genetic WG

			<ul style="list-style-type: none"> <li>• Agreement and implementation of collaborative management plans.</li> </ul>		
	Lack of effective fisheries management of <i>neritic tunas</i> .	<ul style="list-style-type: none"> <li>• Improve fisheries management of neritic tunas.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building of tuna taxonomy, scientific data analysis and stock identification through trainings and/or workshops.</li> <li>• Development of management plans.</li> <li>• Conduct data collection.</li> <li>• Carry out stock assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Three topics specific trainings and/or workshops organized by the end of 2015.</li> <li>• Development of management plan by 2017.</li> <li>• Conduct data collection by 2024 (??).</li> <li>• Stock assessment completed by 2024 (??).</li> </ul>	SEAFDEC-Sweden project is planning to conduct the Expert group Meeting (18-20 June 2014) and IOTC will conduct a Meeting in Phuket in 29 June – 2 July 2014
	Poor information on economically important species in Kraburi-Surin (TH)	<ul style="list-style-type: none"> <li>• Increase the knowledge on economically important species in Kraburi-Surin.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building of taxonomy and survey techniques.</li> <li>• Preliminary survey on economically important species.</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity building on taxonomy and survey techniques conducted by 2016.</li> <li>• Preliminary survey on economically important species conducted by 2017.</li> </ul>	Nansen survey and an atlas of species for Myanmar, Rapid assessment for landing survey techniques to be introduced
Effective Fisheries Management	Lack of information sharing between countries on the legislation, legal provisions within the existing structure	<ul style="list-style-type: none"> <li>• Increase fisheries management effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of a working group for sharing of information between countries concerning legislation, legal provisions and experiences.</li> <li>• Implementation of co-management as a means to</li> </ul>	<ul style="list-style-type: none"> <li>• Established working group for sharing of information of the legislation, legal provisions and experiences between countries by 2015.</li> <li>• Implemented co-management concepts by 2016.</li> </ul>	Link to the Planning and Management committee Existing SMART patrol project, fisheries, national programs, multi-agencies collaboration Myanmar approach

			<p>generate compliances.</p> <ul style="list-style-type: none"> <li>• Capacity building for fisheries communities regarding effective fisheries management.</li> <li>• Joint collaborative management planning.</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted trainings/workshops for fisheries communities by 2015.</li> <li>• Agreed Joint collaborative management planning by 2017.</li> </ul>	<p>FAO to review the fishing law</p>
	<p>Lack of monitoring and control of fishing and landings across borders.</p>	<ul style="list-style-type: none"> <li>• Improve the monitoring and control of fishing activities and landings across boundary areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish a working group concerning the monitoring and control including landings across the borders (under the planning and management committee).</li> <li>• Capacity building for port inspectors/ officers.</li> <li>• Establishment of port monitoring system</li> </ul>	<ul style="list-style-type: none"> <li>• Established working group under the planning and management committee by 2014.</li> <li>• Conducted capacity building through trainings and /or workshops by 2015.</li> <li>• Establishment of port monitoring system by 2017 (??)</li> </ul>	<p>Survey existing frameworks, link with fisheries inspector in Ranong province. SEAFDEC is developing guidelines to protect against IUU products. Look for formal arrangement between the two countries.</p>
	<p>Insufficient catch documentation and product certificates.</p>	<ul style="list-style-type: none"> <li>• Establish an effective system of catch documentation and product certificate.</li> </ul>	<ul style="list-style-type: none"> <li>• Harmonization of regional catch documentation system through expert consultation including stakeholders (SEAFDEC/SEC).</li> <li>• Development of validation process through sub-regional consultation.</li> </ul>	<ul style="list-style-type: none"> <li>• Developed ASEAN catch documentation system by 2016.</li> <li>• Validation processes agreed by 2017.</li> </ul>	<p>ASEAN Catch documentation scheme is being developed</p>