



4. Specifically, the Meeting aimed to provide a venue to explore options to lay the foundation for the introduction of larger fisheries resources conservation areas (*refugias*) by initiating a dialogue with the countries around the Andaman Sea as well as promoting collaboration among agencies and organizations working on fisheries, environment and marine and coastal resources management in the Andaman Sea, and review and provide action-oriented recommendations in the Andaman Sea context on key issues of regional concern such as habitat management, fishing capacity, IUU fisheries, vessel registration, among others. Main parts of the discussions during the meeting will be reflected in sections on recommendations after each thematic issue. The Prospectus of the Meeting is shown as **Annex 3**.

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

### **III. DISCUSSIONS ON THEMATIC ISSUES**

#### **3.1 Integration of fisheries and habitat management, fisheries resources conservation areas (*refugia*) – ecosystems approach**

6. The Meeting noted the increased attention being given to the need to apply ecosystems based approaches to management and that various consultations have been conducted in the ASEAN region on the perspective of fisheries resources conservation and management. Through SEAFDEC consultations have more specifically been focused on the integration of fisheries management and habitat management. Presently, there are in the region a whole range of management schemes, such as MPAs, Ramsar sites, heritage sites, etc. The Meeting was informed that in an effort to review such management schemes, an inventory of the existing management schemes has been initiated for the ASEAN-Andaman Sea countries. In addition, the Meeting was also informed on the possibility of establishing a larger management areas (*refugia*) in the Andaman Sea based on the existing smaller management schemes.

7. The Meeting took note of the presentation made by RFPN Member for Myanmar, Mr. Nyunt Win on the integration of fisheries and habitat management and fishery resources conservation areas. He also introduced the initial inventory of different types of areas established for various environmental, fisheries, shipping or other management purposes by the ASEAN countries Indonesia, Malaysia, Myanmar, and Thailand in the Andaman Sea area. In the presentation, Mr. Win outlined the building up of fisheries resources conservation areas (*refugias*) in the context of ecosystems management and proposed some criteria for fisheries resources conservation as well as the elements of a larger ecosystem management area. The discussion indicated strong support to these larger areas including trans-boundary arrangements as needed. During the discussion, the Meeting provided some further inputs to the initial inventory which is to be followed up by SEAFDEC and participating countries. The initial inventory and the presentation by Mr. Win appear as **Annex 5**.

8. Moreover, the representative from India, Dr. Venkataramiah Krishnamurthy introduced the management and conservation schemes adopted in the Andaman-Nicobar Islands (**Annex 6**). Specifically, the Meeting was informed that the fishery resources of the Andaman-Nicobar Islands are not yet over-exploited. However, adoption of management approaches is considered relevant for the conservation of the fishery resources and important habitats. The presentation nicely complemented information provided on the other countries.

9. In an area like the Andaman Sea, there is a need to explore ways to manage the resources of trans-boundary and (highly) migratory species. To provide a background the representative from Thailand, Ms. Praulai Nootmorn reported on the results of studies on *Rastrelliger* spp. and related species. The report appears as **Annex 7**. The report included information on Thailand's production of *Rastrelliger* spp. (i.e. *R. brachysoma* and *R. kanagurta*) in 2007 of about 70,800 mt or about 8% of the country's total production from marine capture fisheries in the Andaman Sea, together with information on its life cycle, maturation stages and distribution in the Andaman Sea. The information gathered on the status of the fisheries led to the extension of the country's regulation on closed season for *Rastrelliger* spp. fishing in the Andaman Sea. The closed season lasts from 1<sup>st</sup> April to 30<sup>th</sup> June of each year. Furthermore, the conservation area was expanded from 2,000 km<sup>2</sup> to 4,000 km<sup>2</sup> in the Andaman Sea area of Thailand. Ms. Praulai added that such regulation also covers other species such as cuttlefish, anchovy and *Nemipterus* spp. as these economically important species also spawn in the same areas as the *Rastrelliger* spp.

10. The information provided on the migration of *Rastrelliger* spp. clearly indicated loops of migration across boundaries of Myanmar and Thailand, and Thailand, Malaysia and Indonesia, respectively. In the discussion, it was stated that this was a good example on trans-boundary movements of fish. While at the same time it is important to highlight the multi-species nature of the fisheries, as indicated by the Thai regulations also covering cuttlefish, anchovy and *Nemipterus* spp. (*Rastrelliger* spp. and "related" species).

11. The representative from Myanmar, Mr. Aung Htay Oo informed the Meeting on the Status of Hilsa (*Tenualosa ilisha*) Fisheries in Myanmar (**Annex 8**). Hilsa is also an important shared fisheries resource in the Andaman Sea area. For Myanmar, the Hilsa is of high economic importance providing large export earnings. Information provided by the presentation and confirmed during the discussion is that migration of Hilsa covers areas of Myanmar, Bangladesh and India. Furthermore, a specific feature of Hilsa type species is that it also migrates up into river systems (anadromous). During the discussion, it was made known that Hilsa species also are common in Malaysia and Indonesia although in Thailand, *Hilsa toli* has been observed to be locally extinct. Furthermore, there was some input on the Hilsa research (ACIAR) in Bangladesh which has led to some promising, effective management measures to be studied and promoted.

### **Recommendations:**

- (1) To further develop and complete an inventory of existing management areas and zones established for purposes ranging from environmental protection, fisheries resources conservation, heritage to traffic separation schemes for shipping and safety zones around off-shore installations (oil rigs, etc).
- (2) To establish focal points among participating countries to provide information and feedback to the SEAFDEC-Sida Project on the inventory of "management areas" or "conservation zones" set up for different purposes, including accurate maps of the management areas indicating the coordinates, for easy reference. There should be a focus on the Andaman Sea region in developing the inventory.
- (3) Define suitable larger fisheries resources conservation areas (*refugia*) an aggregation or network of already established small management areas. The area should be large enough to manage and to protect trans-boundary habitats and (highly) migratory species "embracing" a number of existing defined management areas. The more

specifically defined size of the area should gradually be developed through consultative processes involving coastal villagers, the traditional users of the resources, researchers, local and central authorities and other stakeholders, taking into consideration the following factors:

- a) *To build upon an aggregation of smaller management areas (established for local fisheries, fisheries resources protection, habitat management and/or other purposes);*
- b) *To recognise the existing zoning schemes (like trawling free zones);*
- c) *To take note of the seasonality in fishing, fish migration/spawning, etc.*

Focus could, tentatively, be on four, very broad areas: 1) From Phuket down to the One Fathoms Bank (Selangor and North Sumatra); 2) From Phuket up along the coastline of eastern Myanmar and the Myeik/Mergui Archipelago; 3) The Western part of Myanmar, Bangladesh and India (including northern Andaman and Nicobar Islands); 4) India (Southern Andaman and Nicobar Islands) and Indonesia (Banda Aceh).

- (4) The number and locations of sea mounts was considered not to be well documented in the Andaman Sea and it was recommended that review(s) should be made to survey the existence of sea mounts in the Andaman Sea as these could be potential biodiversity hotspots.
- (5) Information should be gathered on sources of information on important habitats throughout the Andaman Sea region by dialogue with the countries around the Andaman Sea and through contacts with organizations such as IUCN, WWF, Wetlands International, etc.
- (6) Initiate development of management measures for *Rastrelliger* spp. and related species highlighting the need for and design of regulatory measures, considering that these fishery resources are shared by Thailand, Indonesia and Malaysia (on the southeast Andaman/Malacca Strait) and Myanmar and Thailand (in the Northeast Andaman).
- (7) Due consideration should be given to the importance of estuaries, deltas and river systems to the productivity of the Andaman Sea as well as of its importance as a main source of aquatic production. Special attention to anadromous species like Hilsa spp.
- (8) Facilitate the sharing of biological, social, economical and other (scientific) data on economically important species as well as on endangered species and important habitats. Furthermore, emphasise the importance of oceanographic data (e.g., seasonal changes in water currents) in focal areas and the Andaman Sea as a whole. Consider, also, undertaking DNA studies on the Indo-Pacific mackerel juveniles.
- (9) Pay more attention on the conservation of Hilsa resources by controlling the catch of its juveniles through mesh size regulation, creating stakeholders' awareness on Hilsa fisheries management. Involve relevant stakeholders (e.g., institutions such as irrigation and national pollution agencies for inland fisheries management, also oceanographers (for marine management areas) in the management of Hilsa fisheries considering that Hilsa is anadromous and found in rivers as well as marine areas.

- (10) Examine factors such as climate change that lead to distribution shift and production fluctuations of important fishery resources, or where primary productivity is decreasing but production is increasing (paradox of the time).
- (11) Consider fisheries *refugia* as a tool for the management of the whole life cycle of important fishery resources instead of just Marine Protected Area (MPA) which gives more focus on habitat conservation (*e.g.*, coral reefs, sea-grass beds, mangroves, etc.). In the process incorporate and build upon MPAs and other management schemes in developing the *refugia* zoning and management.
- (12) Efforts should be done to harmonize and/or (initially) assess areas of compatibility of national regulations as a tool for cooperation and specifically point at the need for flexibility to allow for the integration of fisheries management with habitat management.
- (13) A basic recommendation to improve management was to promote and generate compliance to reduce the need for strict enforcement.
- (14) Develop a glossary of the terms used by Andaman countries with reference to the national definitions as stated in laws and regulations (if available) to see if this could be synthesised into a common set of definitions or at least come up with common reference points that could be used in the process of the establishment of fisheries resources conservation areas. In the process also take into consideration definitions provided by IUCN and other international organisations.

### 3.2 MCS Network, Vessel Record and Inventory

12. The Meeting was informed on the process, initiated by the Gulf of Thailand Sub-region members, to establish a MCS network. This network would initially have its focus on information sharing, such as on the number and types of boats, people involved in fishing, landings among others. The Meeting was also informed on the process to develop a fishing vessel record and inventory in Southeast Asia as well as in the Gulf of Thailand Sub-region.

13. The Meeting took note of the presentation made by the RFPN Member for Thailand, Ms. Piyawan Hussadee on the MCS Network, Vessel Record and Inventory, focusing on the management measures and tools that could be used (**Annex 9**), such as those discussed during the Sub-regional Meeting on the Gulf of Thailand (*i.e.* Monitoring, Control and Surveillance (MCS), MCS Network, vessel record and inventory, port monitoring).

14. The representative from Thailand expressed the view that effective implementation of MCS would depend on the fisheries management policy of each country. Although an extensive MCS system is very costly to manage alternative systems could be tested. As tried by the CHARM project elements can be operated at the local or fishing community level. This can be effective through capacity building of fishermen enabling them to understand the context and to collect data in support of the “Monitoring” aspect as well as to establish local structures for purposes of creating reference points as a basis for “Control”.

15. The Meeting was also informed on the negotiations on the draft legally-binding Port State Measures, which has been finished but need the endorsement of FAO later during 2009 before it can be adopted by the FAO Committee on Fisheries (COFI) in early 2010. Reference was made to the definition of IUU indicated in the legally-binding Port State Measures. In the perspective of a definition of IUU fishing applicable to the Andaman Sea,

the Meeting reviewed the definition agreed by the Gulf of Thailand countries in February 2009. The Andaman Sea countries shared the opinion and it was agreed that the definition of IUU fishing applicable to the Andaman Sea should be:

- Conducted by national or foreign vessels in waters under the jurisdiction of a state, without the permission of that state, or in contravention of its laws and regulations
- In violation of national laws or relevant international obligations
- Which have not been reported, or have been misrepresented, to the relevant national authority, in contravention of national laws or regulations
- In areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in manner inconsistent with State responsibilities for the conservation of living marine resources under international law

16. The meeting reviewed and discussed the institutional matrix on Monitoring, Control and Surveillance and its relevance to support the building up of and MCS network for the Andaman Sea Sub-region. The relevance was confirmed and it was suggested that a number of central activities should be indicated under each category and at this stage it was no need for a “complete” list activities. Having done that, the information on “responsible institutions”, “supporting legislation” and relevant “convention/international agreement” should be added to the matrix. Furthermore, the Meeting suggested that the matrix should be left as open ended, to give free hand for the countries concerned to provide additional relevant key activities and information on responsible institutions and supporting legislation. At the onset, the Meeting also agreed that additional key activities such as “stock assessment” and “ecosystems health monitoring” should be included in the matrix on Monitoring (M).

17. The draft survey forms to initiate a “Vessel record and inventory” was introduced to the meeting and there were some general references by participating countries on their practices with regards vessel registration and fishing licenses for vessels, gears and/or fishermen. Without providing any clear directions on steps forward, there was a common understanding that it would be important to develop a vessel record and inventory for the sub-region. A concrete suggestion was to use the forms and insert available information in connection with on-site training to be held at provincial level among Andaman Sea countries.

18. There is common understanding that “Port monitoring” is something that would be of increasing priority and special reference was made during the meeting to the “final” version to the requirements for Port State Measures, EU requirements for catch documentation (to be applied from 1 January 2010) and of a more local nature to the landings of fish that is being done in “neighbouring countries”. The survey form to assess the types of information that would be available in connection with port monitoring was not directly discussed by the meeting but the forms could be a useful tool to explore (and insert) available information in connection with on-site training to be held at provincial level among Andaman Sea countries.

***Recommendations:***

- (1) To further explore options to establish a MCS-network for the Andaman Sea region by initially focus on the sharing of information.
- (2) Further develop the matrix on key activities related M, C and S, respectively, to indicate responsible institutions and supporting legal documents.

- (3) Explore the extent of implementation of MCS by the countries in the Andaman Sea Sub-region, and initiate cooperation among the relevant countries for the implementation of MCS.
- (4) Explore possibilities to build local MCS systems at community level including incorporation of traditional knowledge and local organization.
- (5) Provide the relevant inputs into the Vessel Record and Inventory Survey Form (Larger Registered Fishing Vessels) and also into the Vessel Record and Inventory Survey Form (Coastal Fishing Vessels/Boats), as well as information for the Port Monitoring and Landing Site Monitoring.
- (6) Provide inputs to the survey forms the process to enter required information, as available, in should be included as elements for on-site training events at provincial level in countries around the Andaman Sea.
- (7) Provide capacity building on MCS at national, provincial and local level and build upon the forms for “vessel record and inventory” and “port monitoring” in the process.
- (8) Include “ecosystems health” and “stock assessment” among monitoring activities.

### **3.3 Capacity Building, Climate Change and Local Knowledge**

19. The Meeting took note of the introductory presentation by the representative from ICSF, Mr. Sebastian Mathew (**Annex 10**) on how local knowledge and traditional institutions are referred to in international conventions and instruments, including the code of conduct for responsible fisheries. Following that there was a presentation by the RFPN Member for Malaysia, Mr. Yusri bin Yusof on the lessons learned from the workshop on customary institutions held in Lombok, Indonesia (2 – 5 August 2009) including references to some of the major local customary institutions in Indonesia. Furthermore, the presentation included a short introduction to the local organisation developed in La-Ngu District in Satun Province, Thailand. (**Annex 11**).

20. A general recognition is that local knowledge, traditional practices and local organisations could provide important in the development of M, C and S at local level specifically on the monitoring and control as indicated by experiences in Indonesia and La-Ngu District in Satun as well as from earlier references to the CHARM project in Thailand.

21. The Meeting also noted the perceived impacts of climate change to the fisherfolk and fishery resources which was presented by SEAFDEC Advisor, Dr. Magnus Torell (**Annex 12**), where he suggested certain areas that would need attention to mitigate climate change linking these with the overall efforts in improving fisheries and coastal management for food security.

22. Local knowledge, traditional practices and local organisations are important factors to build upon when building up capacity to adapt to climate change and in efforts to mitigate effects caused by climate change, such as impact from storms, typhoons, floods, etc

23. Climate change cuts across all aspects related to fisheries and habitat management as including social development. It was noted that actions needed to improve fisheries and habitat management, maintain ecosystems health and increased resilience among coastal and

inland fishing communities would also be relevant to address impacts of climate change and building up adaptive capacity. It is important to find or develop suitable indicators to report results of actions implemented and to train people and project staff to include perspectives of climate change in the regular reports.

24. Capacity building is considered another cross-cutting matter that needs to be addressed continuously at all levels. Recommendations on capacity building needs has been made in each of the sections throughout the Meeting, including aspects integration of fisheries and habitat management, MCS and MCS networks, vessel records, port monitoring, local/traditional knowledge, climate change and how to report in perspective that shows efforts made in response to perceived impacts of climate change. These aspects would be important to include in on-site training and dialogue events.

#### ***Recommendations:***

- (1) Develop area management systems based on success stories of community involvement in fisheries management using traditional practices (*e.g.* those in Indonesia and Thailand), to be integrated into fisheries management planning and regulations where the roles of all stakeholders are clearly defined.
- (2) Put more emphasis on the needs of the local communities, *e.g.* communication and accessibility and transparency on the part of the government.
- (3) Address the need for capacity building through on-site training for local communities in the Andaman Sea Sub-region and in the process recognise the need to ensure improved understanding among government agencies on aspects of local knowledge and local organizations as applied in community-based fisheries management.
- (4) Facilitate the implementation of action to enhance resilience and to improve capacity to adapt to the effects of climate change and increased unpredictability of weather patterns. Furthermore, build up the ability, at various levels, to understand the impacts of climate change and links to fisheries and habitat management
- (5) Underline the impact of climate change on the acidification of the oceans which could affect the food chain and the importance to refer to oceanographic factors and changes over time.

### **3.4 Introduction of key partners and formulation of future plans for cooperation**

25. As one of the key partners of SEAFDEC and the SEAFDEC-Sida Project, the BOBLME project was presented by the Chief Technical Adviser of the BOBLME, Dr. Rudolf Hermes (**Annex 13**). The BOBLME project is aimed at establishing strategic action program to address the critical fisheries management and environmental health-related issues in the Bay of Bengal which include over-exploitation of the fishery stocks, habitat degradation, land-based pollution which have lead to uncertainties on whether the ecosystem would be able to support livelihoods in the future. Considering that the Andaman Sea is a relatively well-defined marine eco-region within the BOBLME, the Andaman Sea Sub-region could benefit from coordinated efforts in project implementation between the SEAFDEC-Sida and BOBLME projects based on an ecosystem approach to fisheries (*e.g.* in fisheries and critical habitat management and promotion of harmonised policies). With regards to the

area covered by the BOBLME in the Andaman Sea area, it has been agreed with participating countries that the limit in the Malacca Straits would be the “One Fathom Bank”.

26. Another key partner project, Mangroves for the Future (MFF): Investing in Coastal Ecosystems (**Annex 14**) was introduced by Dr. Don Macintosh, Coordinator of the MFF Project of the IUCN Asia Regional Office. With India, Indonesia, Malaysia, Seychelles, Sri Lanka, and Thailand as focal countries, MFF identified areas where it could contribute to the promotion of the objectives and activities proposed by the SEAFDEC-Sida Project. Considering that MFF works on coastal ecosystem rehabilitation, MFF could help the SEAFDEC-Sida project in developing indicators for assessing the coastal ecosystem health. Moreover, cooperation could be forged in the promotion of community-based habitat and fisheries management, development of climate change adaptation strategies, application of traditional knowledge and scientific-based information in support of habitat and fisheries management, among others.

### **3.5 Discussion and recommendations on the geographical coverage of the Andaman Sea**

27. The Meeting discussed the delimitation of the Andaman Sea for the purpose of fisheries and habitat related cooperation in the Andaman Sea Sub-region and a map of the region (**Annex 15**) indicating the political boundaries (extent of the EEZs) and other references such as sub-areas of Area 57 as defined by FAO (and SEAFDEC) for purposes of reporting fisheries statistics. One important factor in deciding the geographical coverage was that the SEAFDEC-Sida Project would benefit if the area was aligned with that of the BOBLME. In practical terms indications had to be made on how far down the Malacca Straits to reach. The Meeting agreed that, in line with the BOBLME, to extend the project area down south to the “One Fathom Bank” which in project implementation terms would mean also to include the Indonesian Province of North-Sumatra and the Malaysian Province of Selangor (as recommended by the Meeting).

28. On the western side of the Andaman Sea on the question on where, possibly with the Andaman and Nicobar Islands as the western “divider”, the Meeting suggested that there would not be any immediate need to make a clearly defined western boundary for purposes of the SEAFDEC-Sida Project. The logic of this lies in the cooperation with the BOBLME in that in areas of the western part of the Andaman Sea trans-boundary cooperation on important stocks (Hilsa spp) and other aspects cooperation would need to include Myanmar, India and Bangladesh (and extend into the Bay of Bengal) which is well within the remit of the BOBLME. Similarly, aspects of cooperation in the Andaman Sea between Indonesia and India would need to also extend into the Bay of Bengal, again within the remit of the BOBLME.

29. In practical terms for the implementation of the SEAFDEC-Sida Project the focus will be to invite (in cooperation with the BOBLME) all five Andaman Sea countries for sub-regional meetings such as the one Phuket and other sub-regional meetings as defined from time to time. As for on-site training, trans-boundary dialogue, etc there will be a focus of the SEAFDEC-Sida Project on the eastern part (again in cooperation with the BOBLME) in principle, initially targeting two larger areas namely 1) the area South of Phuket down the Malacca Straits to Selangor and North Sumatra (One Fathoms Bank) and 2) the area North of Phuket up along the Coast of Myanmar and Myeik/Mergui Archipelago. The anticipation (from the SEAFDEC-Sida Project) is that for more area specific activities, on-site training,

etc the BOBLME would be instrumental (as practical with cooperation from SEAFDEC and the SEAFDEC-Sida Project) in areas of the North-western part of the Andaman Sea where cooperation would need to include Myanmar, India and Bangladesh and with respect to cooperation in the South-western Andaman Sea between Indonesia (Banda Aceh) and India.

30. To maintain a reference to the “fishing areas” established by FAO (and SEAFDEC) the area would be within the FAO Fishing Area 57: 57a (marine fishing area of Myanmar), 57b (marine fishing area of Thailand in the Indian Ocean), 57c (marine fishing area of Malaysia in the Andaman and Malacca Straits), 57d (marine fishing area of Indonesia in the Malacca Strait), and the area around the Andaman-Nicobar Islands (57.check the specifics). These references should be seen in the context of the implementation focal areas of SEAFDEC-Sida and BOBLME respectively as referred to in points 26 – 28 above.

31. A question was made by the BOBLME to India on the possibility of sub-dividing the EEZ around Andaman and Nicobar Islands into one Andaman Sea part and one Bay of Bengal part to highlight or more easily collect information relating to the Andaman Sea “eco-region”. For the time being this would not be possible as the data is aggregated for EEZ as one entity.

32. Furthermore, it was also suggested that due coverage should extend into deltas, rivers, etc as practical to address the connectivity between rivers and marine areas in terms of productivity and more specifically for the anadromous migration of species like Hilsa spp

#### **IV. FOLLOW UP ACTIONS AND LINKS TO SEAFDEC, SEAFDEC-SIDA PROJECT AND OTHER MAJOR INITIATIVES INCLUDING WRAP-UP AND RECOMMENDATIONS**

33. The Meeting was informed that the SEAFDEC-Sida Project would provide a venue for the promotion of cooperation mechanisms for the integration of fisheries and habitat management as well as management of fishing capacity. In this regard, collaboration would be called for not only among fisheries agencies in the Andaman Sea Sub-region but also among and with other institutions responsible for the sustainable development of fisheries, the management and restoration of habitats, as well as the improvement of the livelihoods of the fishing communities in the Sub-region.

34. Moreover, the Meeting agreed that the MCS Network should be developed for the Andaman Sea Sub-region, where each relevant country should identify the institutions working on M, C and S, respectively and provide information on the relevant laws and regulations. From such information, the common concern, concept, practice or common legal framework would be synthesized to form a basis for the development of the MCS Network for the Andaman Sea Sub-region.

35. Furthermore, the Meeting also agreed that a network on *Refugia* should be initiated for the Andaman Sea Sub-region taking into consideration the *refugia* network of the ASEAN under the UNEP/GEF/South China Sea Project, and the efforts of India (in the Andaman-Nicobar Islands) as well as those of BOBLME and MFF in the development of *refugia* in the Andaman Sea area.

36. The Meeting was further informed that at the onset of this SEAFDEC-Sida Project, efforts could be built upon information exchange and capacity building under joint arrangements (cross-country) or individual countries as the case may be. Through the establishment of focal points (focal persons) from the participants (participating countries) in this First Meeting, efforts should be made to provide inputs into the matrix for the M, C, and S as well as on the forms provided during the Meeting. Such inputs would be used as working documents during the series of on-site training which could be conducted at the provincial, national and sub-regional levels.

37. Based on the discussions and recommendations made by the meeting (as reflected above) an indication on potential activities and follow-up actions for the SEAFDEC-Sida project in the Andaman Sea Sub-region could include the following items (note that dialogue with the BOBLME will be maintained in the process). The points indicated below will be further specified after the BOBLME Inception Meeting 3 – 5 November 2009:

- Work will be implemented to further develop and complete the inventory of existing management areas and zones established for purposes ranging from environmental protection, fisheries resources conservation, heritage to traffic separation schemes for shipping and safety zones around off-shore installations (oil rigs, etc). In the process contacts will be made with the focal points among participating countries to provide information and feedback to the SEAFDEC-Sida Project on the inventory of “management areas”, “conservation zones”, etc. A focus will be given to the Andaman Sea region in developing the inventory.
- Information will be gathered on sources of information on important habitats (including sea mounts) throughout the Andaman Sea region by dialogue with the countries around the Andaman Sea and through contacts with organizations such as IUCN, WWF, Wetlands International, etc. Due consideration will be given to the importance of estuaries, deltas and river systems to the productivity of the Andaman Sea as well as of its importance as a main source of aquatic production. Furthermore, factors such as climate change that lead to distribution shift and production fluctuations of important fishery resources should be assessed
- Initiate development of management measures, including the sharing of information on biological, social, economical, oceanographic, and other (scientific) data for *Rastrelliger* spp. and related species highlighting the need for and design of regulatory measures, considering that these fishery resources are shared by Thailand, Indonesia and Malaysia (on the southeast Andaman/Malacca Strait) and Myanmar and Thailand (in the Northeast Andaman). At the onset work will be done to trace available information on migration and life-cycle patterns.
- The SEAFDEC-Sida project will promote fisheries *refugia* as a tool for fisheries resources conservation and the management of the whole life cycle of important fishery resources. In the process incorporate and build upon MPAs and other management schemes in developing the *refugia* zoning in accordance with the criteria provided above and below.
- Develop a glossary of the terms used by Andaman countries with reference to the national definitions as stated in laws and regulations (if available) to see if this could be synthesised into a common set of definitions or at least come up with common reference points that could be used in the process of the establishment of fisheries resources conservation areas. In the process also take into consideration definitions provided by IUCN and other international organisations

- In all aspects relevant the SEAFDEC-Sida will make efforts to, initially, assess areas of compatibility of national regulations as a tool for cooperation and specifically point at the need for flexibility to allow for the integration of fisheries management with habitat management
- The SEAFDEC-Sida Project will further develop the matrix on key activities related M, C and S, respectively, to indicate responsible institutions and supporting legal documents in cooperation with national focal points. “Ecosystems health” and “stock assessment” will be included among “monitoring activities”
- Further explore the extent of implementation of MCS by the countries in the Andaman Sea Sub-region, and initiate cooperation among the relevant countries and institutions to initiate a MCS network, initially focusing on sharing of information. In the process possibilities to build local MCS systems at community level including incorporation of traditional knowledge and local organization should be assessed.
- The SEAFDEC-Sida will continue to gather relevant inputs into the Vessel Record and Inventory Survey Form (Larger Registered Fishing Vessels) and also into the Vessel Record and Inventory Survey Form (Coastal Fishing Vessels/Boats), as well as information for the Port Monitoring and Landing Site Monitoring.
- A sequence of on-site training events will be organized by the project (in cooperation with BOBLME) during 2010 and 2012 that will address capacity building on MCS at national, provincial and local level and work with the forms for “vessel record and inventory” and “port monitoring” in the process as well as on the “integration of fisheries and habitat management” (for the BOBLME with an emphasis on the latter part).
- More emphasis will be given to the needs of the local communities, e.g. communication and accessibility and transparency on the part of the government and incorporate that in the capacity building through on-site training for local communities in the Andaman Sea Sub-region, as well as consider also capacity building for government agencies on local knowledge and local organizations as applied in community-based fisheries management
- The sequence of on-site training will also include capacity building to improve capacity to increase resilience and capacity to adapt the effects of climate change and increased unpredictability of weather patterns, and to increase understanding of the impacts of climate change and links to fisheries and habitat management

38. As indicated by the meeting SEAFDEC will apply the following criteria in defining suitable fisheries resources conservation areas (refugia): The area should be large enough to include and to protect trans-boundary habitats and migratory species “embracing” a number of existing defined management areas. The more specifically defined size of the area should gradually be developed through consultative processes involving coastal villagers, the traditional users of the resources, researchers, local and central authorities and other stakeholders, taking into consideration the following factors:

- a) *To build upon an aggregation of smaller management areas (established for local fisheries, fisheries resources protection, habitat management and/or other purposes)*
- b) *To recognise the existing zoning schemes (like trawling free zones)*
- c) *To take note of the seasonality in fishing, fish migration/spawning, etc*

Focus could, tentatively, be on four, very broad areas: 1) From Phuket down to the One Fathom Bank (Selangor and North Sumatra); 2) From Phuket up along the coastline of eastern Myanmar and the Myeik/Mergui Archipelago; 3) Western part of Myanmar, Bangladesh and India (including northern Andaman and Nicobar Islands); 4) India (Southern

Andaman and Nicobar Islands) and Indonesia (Banda Aceh). For the SEAFDEC-Sida project prime focus will on 1) and 2).

39. Geographical coverage: In line with the recommendations from the Meeting, and to be in line with the BOBLME the project area in the Malacca Straits will extend down south to the “One Fathom Bank” which in project implementation terms would mean also to include the Indonesian Province of North-Sumatra and the Malaysian Province of Selangor (as recommended by the Meeting). On the western side of the Andaman Sea there will not be any clearly defined western boundary for purposes of the SEAFDEC-Sida Project. Through the cooperation with the BOBLME activities in the western part of the Andaman Sea that would require including areas “beyond” the Andaman Sea would be covered by the larger geographical coverage by the BOBLME.

40. In practical terms for the implementation of the SEAFDEC-Sida Project the focus will be to invite (in cooperation with the BOBLME) all five Andaman Sea countries for sub-regional meetings such as the one Phuket and other sub-regional meetings as defined from time to time. As for on-site training, trans-boundary dialogue, etc there will be a focus of the SEAFDEC-Sida Project on the eastern part (again in cooperation with the BOBLME) initially targeting two larger areas namely 1) the area South of Phuket down the Malacca Straits to Selangor and North Sumatra (One Fathom Bank) and 2) the area North of Phuket up along the Coast of Myanmar and Myeik/Mergui Archipelago. The anticipation (from the SEAFDEC-Sida Project) is that in more area specific activities, on-site training, etc in the western part of Andaman Sea the BOBLME would be instrumental (as practical with cooperation from SEAFDEC and the SEAFDEC-Sida Project), such as in areas of the western part of the Andaman Sea where cooperation would need to include Myanmar, India and Bangladesh and with respect to cooperation in the Andaman Sea between Indonesia (Banda Aceh) and India.

41. The Meeting was informed that the Report of the First Meeting of the Andaman Sea Sub-region incorporating the recommendations would be finalised taking into consideration further comments from the resource persons and participants of the Meeting. An early draft of the final Report will be used by SEAFDEC to provide input by the SEAFDEC-Sida Project to the BOBLME Inception Meeting during the first week of November 2009 and revised as needed after that meeting.

42. Considering also that the Andaman Sea Sub-region is one of the sub-regional arrangements being considered under the ASEAN Fisheries Consultative Forum or AFCF, the recommendations raised during the First Meeting of the Andaman Sea Sub-region would also be submitted to the appropriate ASEAN meetings for policy support as well as to the annual review meeting of Sida and SBF for continued support. In general the Meeting had also been supportive in promoting awareness on the benefits of sub-regional cooperation in an area like the Andaman Sea region.

43. The representative from MFF reiterated the areas of cooperation that could be forged between MFF and the Andaman Sea Sub-region, such as capacity building (individual countries and institutional capacity building) and climate change adaptation strategies. Specifically, since MFF is not directly working with the Andaman-Nicobar Islands, MFF can work towards achieving such goal through India under the Andaman Sea Sub-regional arrangements. In addition in order that MFF would be able to assist Myanmar through Thailand, the SEAFDEC-Sida Project could serve as the facilitating institution and

operationally through the BOBLME in promoting such cooperation. Moreover, since FAO is also active in the fisheries sector of Myanmar specifically in mangrove conservation and aquaculture, cooperation could also be strengthened through the BOBLME project and specifically through the SEAFDEC-Sida Sub-regional project.

44. The representative from BOBLME informed the Meeting that since the five relevant countries of the Andaman Sea Sub-region are also members of BOBLME, the BOBLME would offer a platform for the implementation of the recommendations raised at this Meeting.

45. The Meeting also agreed that adaptations to climate change should not be considered as standalone project, and concurred with the suggestion of MFF that the highlights on climate change adaptations should be considered as cross-cutting issue and that climate proofing should be considered in the activities that will be planned and implemented under the Andaman Area Sub-region project.

## **V. CLOSING OF THE MEETING**

46. SEAFDEC Senior Advisor, Dr. Magnus Torell expressed his appreciation to the resource persons and participants for their active participation in the Meeting, and declared the Meeting closed. On behalf of the participants, the representative from India thanked the organizers for the arrangements of the Meeting.