

# Enhanced Fisheries Sector Capability for Sustainable and Socially-equitable Resources Management: A legacy of the SEAFDEC-Sweden Project for Southeast Asia

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The Government of Sweden has been supporting the efforts of the Southeast Asian Fisheries Development Center (SEAFDEC) in pursuing the sustainable development and management of fisheries in the Southeast Asian region. During 2003-2007, the Swedish International Development Cooperation Agency (Sida) through the Swedish Board of Fisheries collaborated with SEAFDEC for the implementation of the *Regional Guidelines for Responsible Fisheries in Southeast Asia: Responsible Fisheries Management* in the ASEAN Member States (AMSs) through the conduct of capacity building activities and regional consultations. This led to the unfolding of three thematic priorities to be pursued, for the sustainability of the fisheries of Southeast Asia. These thematic priorities are: (1) management of fishing capacity for combating illegal, unregulated and unreported (IUU) fishing; (2) strengthening of local fisheries management to adapt to climate change and improve social well-being, and (3) integration of fisheries into habitat management. With the main objective of advancing the sustainable management of fishing capacity in the region, a subsequent collaboration between Sida and SEAFDEC (2008-2012) had evolved which was promoted through regional and sub-regional

arrangements, and which hereinafter laid the foundation for the development of four sub-regions in Southeast Asia, namely: the Andaman Sea, Gulf of Thailand, Mekong River Basin, and the Sulu-Sulawesi Seas. Building therefore upon the progress of the Sida and SEAFDEC arrangements, a new arrangement (2013-2019) was forged between SEAFDEC and the Government of Sweden through the Swedish Embassy in Bangkok, Thailand for the promotion of regional cooperation and development, and implementation of sub-regional agreements on fisheries and environmental management, with the fishers in coastal and inland communities as the target stakeholders. Dubbed as the SEAFDEC-Sweden Project, it had pursued activities that aim to enhance the integration of fisheries and habitat management, e.g. adaptation to climate change and improving social well-being in coastal and inland communities. The collaborative arrangements between SEAFDEC and the Government of Sweden therefore had provided opportunities for fishers in the coastal communities of the region to enhance their capability in aggressively pursuing sustainable management of the fishery resources, the adaptive norms to changes in the climate, and improvement of their social well-being.

At the outset, SEAFDEC has been mandated among others, to “train fisheries technicians of the Southeast Asian countries,” a function which SEAFDEC has championed since its establishment in 1967 up to the present. Thus, in all its undertakings, SEAFDEC always makes sure that human resource development is promoted in the Southeast Asian region, and this was also true with the SEAFDEC-Sida and SEAFDEC-Sweden Projects. At SEAFDEC, human resource development focuses on the organizational effectiveness of technology development, verification, and dissemination through meetings and consultations to enhance feedback mechanisms among the concerned stakeholders. It also comes in the form of professional development of fisheries technicians and officers through formal training as well as on-site and practical sessions, to enable them to gain knowledge on the advances in fisheries technologies and obtain the necessary skills for the promotion of such technologies, taking into consideration the technicians’ and officers’ varying capacity gaps.

The Regional Consultation on Human Resource Development in Fisheries Management organized by SEAFDEC in 2004 pointed towards the need to promote human resource development in the Southeast Asian region for the effective

integration of habitat and fisheries management (Torell, 2004). Moreover, the regional consultation also came up with specific recommendations that in the human resource development processes, focus should also be given on the adoption of the concepts of co-management and ecosystem approach to fisheries management, habitat rehabilitation, and resources evaluation among others. Based on such recommendations therefore, the collaborative projects between SEAFDEC and the Government of Sweden had taken up “the improvement of the social well-being and environmental health in the region’s fisheries sector through the integration of habitat and fisheries management,” as their over-arching goals.

## SEAFDEC-Sida Project

In 1998, SEAFDEC embarked on a program for the Regionalization of the Code of Conduct for Responsible Fisheries (RCCRF) to ensure the effective and efficient implementation of the global Code of Conduct for Responsible Fisheries (CCRF) which was adopted in 1995. The RCCRF had two main components, namely: formulation and dissemination of the regional guidelines on responsible fisheries; and promotion of human resource development towards sustainable fisheries management.

## Human resource development on fisheries management

The involvement of the SEAFDEC-Sida Project in programs and activities of SEAFDEC had focused on the second component of the RCCRF, *i.e.* human resource development for the sustainable management of fisheries. Upon the completion of the series of Regional Guidelines by SEAFDEC, promoting the implementation of the Guidelines in the Southeast Asian region was necessary in order that the countries would be able to develop their respective national frameworks for the adoption of the global CCRF. It was in this aspect that SEAFDEC worked with the Swedish International Development and Cooperation Agency (Sida) to carry out the activity “Human Resource Development for Fisheries Management in the ASEAN Region” from 2003 until 2007, through series of meetings and consultations meant to address the emerging issues and concerns in the region’s fisheries sector. In one of those fora, issues that confront the fisheries sector of the region were identified, the major ones of which centered on the need to strengthen the sustainable management of the fishery resources through the management of fishing capacity and reduction of over-capacity. In addressing such issue, the project initiated the Promotion of Regional Cooperation in Fisheries Management and Management of Fishing Capacity (Wanchana, 2007), paving the way for the regional movement that laid the foundation for the development of the Regional Plan of Action for the Management of Fishing Capacity (SEAFDEC, 2017).

## Arrangements for sub-regional management of transboundary fishery resources

The Southeast Asian region is endowed with vast water resources, not only marine waters but also inland water bodies. Considering that most of the water bodies in the Southeast Asian region are shared by two or more countries, the promotion of Regional Fisheries Management Strategies for Southeast Asia was therefore initiated to provide the framework for better management of the transboundary resources and the platform for cooperation within the region to comply with the

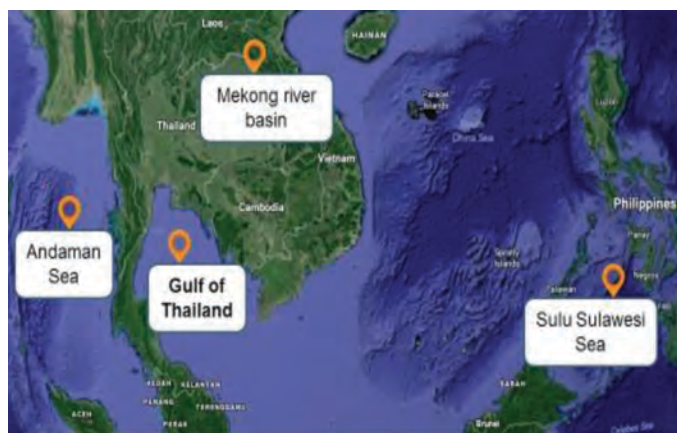


Figure 1. Map of Southeast Asia showing the four sub-regions that had been involved in the collaborative project between SEAFDEC and the Government of Sweden

requirements called for in various international instruments, as well as facilitate the implementation of international standards and procedures, and related requirements for sustainable fisheries management.

During the series of consultations organized by the SEAFDEC-Sida Project for the promotion of sustainable management of the region’s transboundary resources, it was agreed that the regional management mechanism should be supported by arrangements at sub-regional levels to address area-specific issues, such as those that concern the habitats, transboundary aquatic resources and potential conflicts (Ekmaharaj *et al.*, 2009). Thus, the sub-regional arrangements for the Project that had been agreed upon, should focus on four sub-regions, namely: the Gulf of Thailand, Andaman Sea, Sulu-Sulawesi Sea, and the Lower Mekong River Basin (**Figure 1** and **Box 1**).

### Box 1. Development potentials of the four sub-regions of Southeast Asia covered by the SEAFDEC-Sida and SEAFDEC-Sweden Projects (adapted from Ekmaharaj *et al.* (2009))

**Gulf of Thailand:** The Gulf of Thailand (GOT) has high fishery resource potentials because of its shallow topographic bottom (less than 85 meters deep) features that forms the Gulf into a large basin, and the many important rivers that bring down nutrients into the Gulf. Fisheries in the GOT are diverse with small-scale coastal and large-scale fishing operations in the offshore areas. However, the absence of fisheries management and the practice of open access fisheries had rendered the resources especially the demersal resources, towards depletion, as all types of fishing in the Gulf have caused high pressure on the resources. In addition, the depleted resources gave rise to the increasing conflicts between groups of fishermen, occurrence of IUU and trans-boundary fishing, which in turn reduced the opportunities for domestic and export markets that impacted on the livelihoods of fishers.

**Andaman Sea:** The Andaman Sea faces and connects the Indian Ocean, but is almost semi-enclosed due to the Andaman and Nicobar Islands that are “fringing” the Andaman Sea in the eastern part. The geographic and bottom features are quite distinct from that of the Gulf of Thailand. With an area that includes a large continental shelf in the northern part of Myanmar and a deep basin down to 2,000 m in the central part of the Andaman Sea, many rip-currents occur where two water masses meet producing an abundance of small pelagic fishes in its offshore waters. This area therefore has great biodiversity on its continental shelf and continental slopes as well as further offshore. Many commercial fish species thrive on the continental slopes where the depth varies between 150-300 m, and there is an abundance of fish species in the Ayeyarwaddy Delta. Seasonal changes such as the northwest and southeast monsoons are beneficial and could be taken advantaged of in order to reduce the rate of overexploitation and to build up conservation measures to allow the fish stocks to recover. As fishing activities could practically stop during the southeast monsoon, this could be taken as an opportunity to promote closed seasons. Considering the abundance of tuna resources in the Andaman Sea and the potentials of tuna fisheries in the Thai EEZ, exploring new tuna fishing grounds could be initiated, and developing deep sea fisheries on the continental slopes from 200-800 m could be planned. Nonetheless, the potentials and recovery rates of deep sea resources in the Andaman Sea are not yet fully known. Therefore, there is a general need to closely monitor new developments in the Andaman Sea to ensure the long term sustainable utilization of its fishery resources.

**Box 1. Development potentials of the four sub-regions of Southeast Asia covered by the SEAFDEC-Sida and SEAFDEC-Sweden Projects (adapted from Ekmaharaj *et al.* (2009))**  
(Cont'd)

**Sulu-Sulawesi Seas:** Embracing the Banda Sea, Molucca Sea, Flores Sea, and Celebes Sea, the Sulu and Sulawesi Sea sub-regional area has great biodiversity in terms of coastal and offshore resources. The topography of its bottom indicates that almost 80 % of the sea areas are deep, with depths that range from 200 to 5,000 m. Its coastal areas are not suitable for trawling therefore demersal resources are underexploited although many fishing gear such as purse seine and ring-net are being utilized to exploit the small pelagic fishery resources, such as: neritic tunas, round scads and mackerel. Opportunities for future fisheries development in this sub-regional area could include exploring the potentials of deep sea fisheries where oceanic squid is also one of the potential resources. Nevertheless, the important pelagic fish species in this sub-regional area are straddling and highly migratory, therefore joint approaches to the management of their fisheries should be considered.

**Lower Mekong River Basin:** As one of the world's most productive freshwater bodies with an estimated annual fish production of 2.5-3.0 million mt, the Lower Mekong River Basin (LMB) is mainly floodplain where riverine fisheries using a great variety of fishing gear are practiced and where there is a very high involvement of rural people and farmers (part-time or full-time) in the fishing activities. Critical for the reproduction of fish is the seasonal changes in the monsoon and the importance of annual floods. The threat to the resource is more from infrastructure development rather than the fisheries itself, as this could affect the flooding patterns. The Mekong River Commission (MRC) was established "for the sustainable development of the Mekong River Basin" with Cambodia, Lao PDR, Thailand, and Vietnam that border the LMB as signatories. Fisheries management arrangements in the LMB are being promoted by MRC, including the use of fishing quota for the giant catfish (*Pangasianodon gigas*).

Thus, sub-regional arrangements had been sustained towards promoting sustainable fisheries management as well as managing fishing capacity to combat IUU fishing in the region (Awwaluddin *et al.*, 2011). More specifically, cooperation among the various stakeholders involved in the sub-regional arrangements had been consolidated for the development and/or improvement of Monitoring, Control and Surveillance (MCS) mechanisms for the Southeast Asian region which include improvement of port monitoring through enhanced vessel registration and licensing, improved vessel record and inventory, and strengthened MCS networking, especially among the transboundary countries. In the course of attaining such goal, capacity building activities had been organized to ensure that the countries would enhance their capability to promote sustainable fisheries management and combat IUU fishing.

## SEAFDEC-Sweden Project

Boosting its support to the regional actions of the ASEAN Member States (AMSs) in addressing the challenges in fisheries and habitat management, the Government of Sweden provided financial support to SEAFDEC for the seven-year Project "Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia," better known as the "SEAFDEC-Sweden Project," undertaken from 2013 to 2019. With the goal toward "Sustainable use of aquatic resources and reduced vulnerability to climate change by coastal and rural (fishing) communities in the AMSs," the Project focused on strengthening capacity among the AMSs on management of fisheries and habitats, management of fishing capacity and combating IUU fishing through regional and sub-regional cooperation and on-site cooperation with regional and national partners for a broader coverage. The Project covered the four sub-regional areas indicated in **Box 1**, *i.e.* Gulf of Thailand, Andaman Sea, Sulu-Sulawesi Sea, and Lower Mekong River Basin, but the specific sub-regional focus was mainly given to strengthening of the cooperation around the Gulf of Thailand, and Andaman Sea (SEAFDEC, 2019).

The main reason for such arrangement was to avoid duplication of efforts considering that in the Lower Mekong River Basin (LMB), the Mekong River Commission (MRC) has been carrying out sustainable fisheries management activities. Meanwhile, in Sulu-Sulawesi Seas, the USAID-Oceans as well as the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF) are carrying out relevant activities, so that the SEAFDEC-Sweden Project collaborated with such agencies for the promotion of sustainable fisheries in these sub-regions. With the MRC, the SEAFDEC-Sweden Project facilitated the conduct of capacity building activities for the relevant stakeholders in the LMB, especially on the Ecosystem Approach to Fisheries Management (EAFM) towards improved management of fisheries and habitat integration. The Project also worked with the USAID-Oceans and the CTI-CFF in conducting stock studies of transboundary species in the Southeast Asian waters and other relevant activities. Through the Project, coordination and cooperation with international and regional organizations, other projects and partners had been enhanced, considering that partnership had always been the central element in the Project implementation strategy.

### Output Objectives of the SEAFDEC-Sweden Project and corresponding activities

With the overall objective of achieving sustainable use of aquatic resources and reducing vulnerability to climate change by fishing communities in the AMSs, the SEAFDEC-Sweden Project carried out activities towards achieving three output objectives shown in **Box 2**. The Project however, went beyond these specific objectives to address several

Box 2. Output objectives of the SEAFDEC-Sweden Project and the corresponding activities towards achieving the objectives
<p><b>Output objective 1:</b> Capacity built for integration of fisheries and habitat management and adaptation to climate change</p> <ul style="list-style-type: none"> <li>• Sustainability of transboundary species through the implementation of the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region (RPOA-Neritic Tunas)</li> <li>• Management of transboundary resources/stocks through sub-regional approaches</li> <li>• Improving awareness and enhancing capacity on Ecosystem Approach to Fisheries Management</li> </ul>
<p><b>Output objective 2:</b> Capacity built and system improved for the management of fishing capacity (monitoring, record and control)</p> <ul style="list-style-type: none"> <li>• Combating IUU fishing and management of fishing capacity</li> <li>• Monitoring of fishing efforts through enhanced traceability of fish and fishery products</li> <li>• Supporting the establishment of Monitoring, Control and Surveillance (MCS) Networks</li> </ul>
<p><b>Output objective 3:</b> Capacity built and policy development process improved and support drafting and implementation of regional and sub-regional agreements</p> <ul style="list-style-type: none"> <li>• Strengthening the sub-regional cooperation in target sub-regions</li> <li>• Coordination with other organizations and projects</li> <li>• Enhancing coordination with the ASEAN countries through the Regional Fisheries Policy Network (RFPN)</li> </ul>

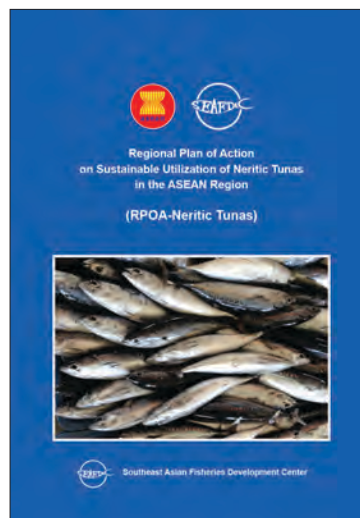
Box 3. Activities carried out under the SEAFDEC-Sweden Project to address cross-cutting issues
<ul style="list-style-type: none"> <li>• Gender and social development</li> </ul>
<ul style="list-style-type: none"> <li>• Improvement of labor, working conditions, and safety-at sea</li> </ul>
<ul style="list-style-type: none"> <li>• Promotion of sustainable small-scale fisheries and the FAO-SSF Guidelines</li> </ul>
<ul style="list-style-type: none"> <li>• Supporting local partners in the implementation of activities for improved social well-being of fishers</li> </ul>

cross-cutting issues, such as those that pertain to gender and labor aspects, local capacity-building, diversification of livelihoods, enhancing social wellbeing, and strengthening of the cooperation among the concerned countries (**Box 3**).

- **Output Objective 1: Capacity built for integration of fisheries and habitat management and adaptation to climate change**

***Sustainability of transboundary species through the implementation of the Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region***

Neritic tunas are among the economically-important species in the Southeast Asian region, and hence necessitated that their fisheries be properly managed for sustainability. The SEAFDEC-Sweden Project therefore supported the development of “Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region (RPOA-



The Regional Plan of Action on Sustainable Utilization of Neritic Tunas in the ASEAN Region

Neritic Tunas)” which was adopted by the SEAFDEC Council in 2015 (SEAFDEC, 2015), as well as the establishment of the “Scientific Working Group on Stock Assessment for Neritic Tunas in the Southeast Asian waters (SWG-Neritic Tunas).”

Moreover, in order to enhance the capacity of national fisheries officers on stock assessment, the Project developed the “Standard Operating Procedures (SOPs) for Data Collection and Analysis of the Neritic Tunas” and the “SOP for Collection and Preservation of DNA Tissue Samples,” and series of training sessions and workshops were organized that focused on data collection and analysis of the stock status of neritic tunas in the region. Specifically, the stock assessment of neritic tuna species, namely: longtail tuna (*Thunnus tonggol*), kawakawa (*Euthynnus affinis*), Indo-Pacific king mackerel (*Scomberomorus guttatus*) and narrow-barred Spanish mackerel (*Scomberomorus commerson*) in the Pacific and Indian Ocean sides was carried out. Genetic study was also undertaken for longtail tuna in the South China Sea, Gulf of Thailand and Andaman Sea. The results revealed the status of the species and established the scientific-based recommendations that support the management of fisheries of the species in the Pacific and Indian Ocean sides.

***Management of transboundary resources/stocks through sub-regional approaches***

Other transboundary aquatic species considered priority species in the Gulf of Thailand and Andaman Sea Sub-regions (involving Cambodia, Indonesia, Malaysia, Myanmar, Thailand, and Viet Nam) were also given focus under the SEAFDEC-Sweden Project. These species included the Indo-Pacific mackerels, anchovies, neritic tunas, and blue swimming crabs. Specifically, the “Standard Operating Procedures (SOPs)” was developed for data collection of transboundary species, e.g. for the Indo-Pacific mackerels, and based on such data collection, coupled with DNA collection and analysis, better understanding of the stock status was attained in Cambodia, Viet Nam, Thailand, and Malaysia



which revealed the mixed stock structure of the Indo-Pacific mackerel in the Gulf of Thailand sub-region. This led to the development of the “Regional Action Plan for Management of Transboundary Species: Indo-Pacific Mackerel in the Gulf of Thailand Sub-region,” which could serve as basis for countries to continue the study on the species and collaboration in the future (SEAFDEC, 2019 in press). Meanwhile, based on the available data of the priority species in the Andaman Sea Sub-region, digital maps indicating the spawning grounds, spawning seasons, biological characteristics, habitats and migration patterns, as well as existing fishing regulations on the priority species, *i.e.* anchovies, mackerels and neritic tunas, were established.

***Improving awareness and enhancing capacity on Ecosystem Approach to Fisheries Management***

The SEAFDEC-Sweden Project enhanced the capacity and knowledge of national fisheries officers by supporting the conduct of a number of training courses that aim to promote the Ecosystem Approach to Fisheries Management (EAFM), especially in Cambodia, Lao PDR, Myanmar, and Thailand. The training sessions were meant to provide additional knowledge and improve the understanding of the

concept of EAFM, and strengthen the capacity of concerned stakeholders for local management of habitats and fisheries. Events were also organized with local partners to promote habitat restoration and fishery resources enhancement to increase their awareness and appreciation of the importance of sustainable management practices and judicious utilization of fishery resources that ensure the security and sustainability of their livelihoods. There had been considerable increase in the participation of women in the discussions on fisheries management issues, and better cooperation with and among public authorities.



Development of EAFM plan

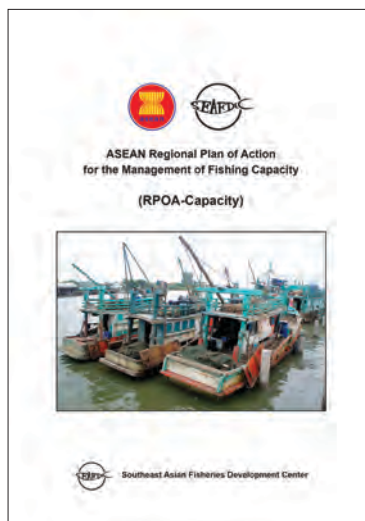


Field work for data collection

- **Output Objective 2: Capacity built and system improved for the management of fishing capacity (monitoring, record and control)**

***Combating IUU fishing and management of fishing capacity***

There are several challenges that confront Southeast Asian fisheries, which include among others, the need for effective monitoring and control of the fishing efforts, legality of the status of fishing operations, and proper landing and recording of fish and fishery products for the purpose of traceability throughout the supply chain. These issues had been addressed by the SEAFDEC-Sweden Project by closely linking to the efforts exerted by the AMSs, SEAFDEC, and regional and international partners, especially with regards to combating IUU fishing in the waters of Southeast Asia. Specifically, the support of the Project focused on the implementation of activities in the AMSs for improved fisheries management by providing the platform for sub-regional and bilateral discussions towards developing and agreeing on the solutions for overcapacity and IUU fishing.

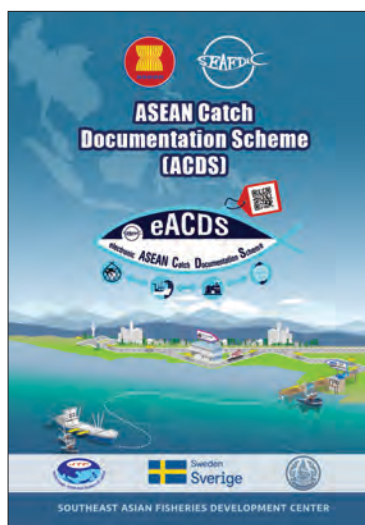


The Regional Plan of Action on Management of Fishing Capacity (RPOA-Capacity)

This led to the development and promotion of the “Regional Plan of Action on Management of Fishing Capacity (RPOA-Capacity),” which was endorsed by the SEAFDEC Council in April 2016, and subsequently by the ASEAN in June 2016 (SEAFDEC, 2017). Moreover, the concerned countries also updated their respective fisheries regulations and frameworks to cope up with the recent developments in the sustainable management of the fishery resources.

***Monitoring of fishing efforts through enhanced traceability of fish and fishery products***

Upon the development of the ASEAN Catch Documentation Scheme (ACDS) by SEAFDEC that was aimed at enhancing the traceability of fish and fishery products in the Southeast Asian region, the Project supported the pilot-testing of such traceability scheme in the region, and also the development of the electronic system of the ACDS or what is known as the eACDS (SEAFDEC, 2017a). Furthermore, the Project also supported the implementation of the Agreement on Port State



A brochure introducing ASEAN Catch Documentation Scheme (ACDS)

Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA) with a view to prevent the entry of IUU fishing products into the region's supply chain.

### ***Supporting the establishment of Monitoring, Control and Surveillance Networks***

The establishment of the Monitoring, Control and Surveillance (MCS) Networks had been considered as one of the means of improving the transboundary management of fisheries, controlling the fishing efforts, and strengthening surveillance systems of the concerned countries. At the outset, the countries came up with the list of information that should be shared and coordinated for enhancing the future cooperation on MCS components of the respective sub-regions, as well as the working mechanisms and the ambitions for future coordination. In addition, the participating countries agreed on establishment of single point of contact (SPOC) for GOT countries by using the same RPOA-IUU focal point network.

- **Output Objective 3: Capacity built and policy development process improved and support drafting and implementation of regional and sub-regional agreements**

### ***Strengthening the sub-regional cooperation in target sub-regions***

The SEAFDEC-Sweden Project sustained the momentum of fostering sub-regional cooperation that was initiated during the implementation of the SEAFDEC-Sida Project in the early 2000s. This involved the conduct of series of meetings serving as platforms for discussion among countries in the Gulf of Thailand, Andaman Sea, and Lower Mekong River Basin, as well as bilateral dialogues among countries in these sub-regions. Strengthening of such cooperation led to subsequent signing of Memorandums of Understanding between the countries, *i.e.* for Thailand-Cambodia, Thailand-Lao PDR, and Thailand-Myanmar. While re-affirming the importance of Gulf of Thailand Sub-regional platform, the concerned stakeholders expressed the willingness to continue this mechanism in the sub-region beyond the completion of SEAFDEC-Sweden Project. Meanwhile, in order to sustain the initiatives in strengthening the cooperation established in the Andamn Sea Sub-region, the information and key achievements derived from the Project was shared with the FAO to serve as inputs in formulation of the project “Sustainable management of fisheries, marine living resources and their habitats in the Bay of Bengal region for the benefit of coastal states and communities” to commence by the end of 2020 with FAO/GEF as prospective funding agency.

### ***Coordination with other organizations and projects***

The SEAFDEC-Sweden Project supported the joint activities and enhanced the coordination with the ASEAN and several regional and international organizations and other projects with the aim of ensuring the long-term sustainability of marine and inland aquatic resources. Regional cooperation among the AMSS, *e.g.* through joint regional, sub-regional and bilateral approaches, is also crucial in building-up and promoting their common understanding to secure sustainability bearing in mind the “transboundary” nature of several aquatic resources including mobility of fishers that utilize such resources.

The project coordinated closely with several organizations and projects, particularly the FAO Headquarters in Rome and Regional Office in Bangkok, the Asia-Pacific Fisheries Commission (APFIC); the Secretariat of Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing (RPOA-IUU). The Project also shared information on its activities with several organizations and projects such as USAID, IUCN, International Labour Organization (ILO), SEAFDEC/UNEP/GEF/Fisheries *Refugia* Project, SEAFDEC/Japanese Trust Fund (JTF).

Furthermore, throughout the course of its implementation, the SEAFDEC-Sweden Project collaborated with a number of local partners, namely: Learning Institute (Cambodia), CORIN-Asia Cambodia, and Sustainable Development Foundation (SDF) Thailand, in the implementation of activities at the local community levels. Results of the activities of such collaboration had facilitated the sharing of experiences and lessons learned from local implementation with other relevant organizations/sector and youth, while awareness on coastal community's livelihood and fisheries and coastal ecosystem were also enhanced. Improved relationship among relevant government agencies, organizations, academic institutes and local communities, including among those in Thailand and Cambodia, were also fostered.

### ***Enhancing Coordination with countries through the Regional Fisheries Policy Network (RFPN)***

The SEAFDEC-Sweden Project had been supporting certain numbers of officers from national fisheries agencies of the Member Countries, namely: Indonesia, Malaysia, Myanmar, Thailand, and the Philippines (JTF supported Cambodia, Lao PDR, and Viet Nam), to be stationed at the SEAFDEC Secretariat for one-year period. The RFPN members had been playing active roles in enhancing coordination and communication between SEAFDEC and their respective countries, while also being given the opportunity to provide technical contributions in various events organized by SEAFDEC.

- **Addressing Cross-cutting Issues in Fisheries**

### *Gender and Social Development*

The SEAFDEC-Sweden Project worked with SEAFDEC on the integration of gender in the project implementation and in enhancing the cooperation with other partners toward the promotion of gender equality in the fisheries sector. More specifically, the Project supported the development of the “Practical Guide for Gender Analysis in Small-Scale Fisheries and Aquaculture in Southeast Asia” using as framework, the key components of the “FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines).”

The Practical Guide includes the available tools and procedures that could be used for gender analysis, together with guide questions, examples of gender-sensitive indicators, and methods for data analysis. It would be used as a tool to support the AMSs in integrating gender and social well-being in the entire cycle of their respective programs and projects to obtain sustainable fishery resources and eradicate poverty in small-scale fishing communities. The Project also supported the development of “SEAFDEC Gender Strategy” that strives to mainstream and integrate gender perspectives into the SEAFDEC organization, and in its programs, projects, and activities. The Strategy was approved by the SEAFDEC Council in 2019 (SEAFDEC, 2019a).

### *Improvement of labor, working conditions, and safety-at-sea*

Improved labor and working conditions in fisheries, as well as safety at sea are among the most important cross-cutting elements that would facilitate the promotion of sustainable fisheries. For these aspects, the SEAFDEC-Sweden Project



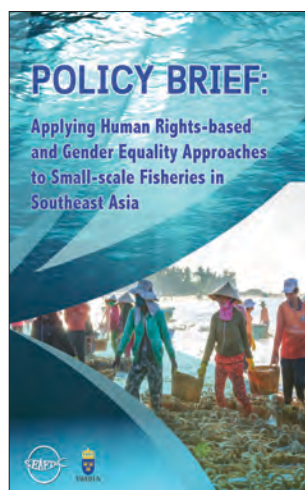
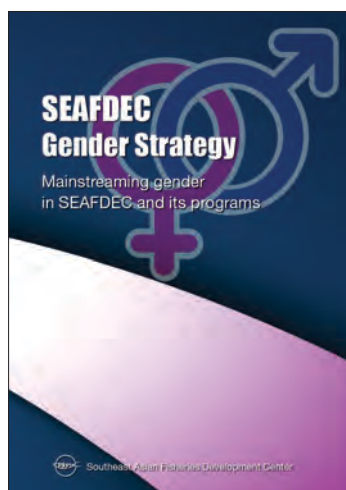
collaborated and sustained dialogues with the International Labour Organization (ILO) and the Food and Agriculture Organization (FAO) to address the issues against the backdrop of the conditions in the AMSs.

### *Promotion of sustainable small-scale fisheries and the FAO-SSF Guidelines*

After the adoption of the “FAO Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication” (SSF Guidelines), efforts were made by countries, regional organizations, and the civil society to support the steps in the implementation of the SSF Guidelines. In this connection, the SEAFDEC-Sweden Project collaborated with FAO and other partners in promoting the process of applying the regional approach, and came up with the “Policy Brief” that would serve as reference to improve understanding and awareness of the principles contained in the SSF Guidelines. The Policy Brief includes the benefits and implications of the SSF Guidelines to the region, taking into consideration the “human-rights based approach” and “gender equality and equity” in small-scale fisheries (SEAFDEC, 2018).

### *Supporting local partners in the implementation of activities for improved social well-being of fishers*

The Project supported the rural and coastal communities in strengthening their ability to adapt to the effects of climate change, manage natural resources, conserve or restore critical habitats, develop and manage diversified livelihood options and alternative income-earning opportunities, and promote gender equity and equality. In so-doing, the Project engaged local partners that have considerable experience in rural development and strong presence in the Project sites. These partners include: CORIN-Asia-Cambodia, Learning Institute



SEAFDEC publications on gender: the SEAFDEC Gender Strategy (left) and the Policy Brief: Applying Human Rights-based and Gender Equality Approaches to Small-scale Fisheries in Southeast Asia (right)



(Cambodia), Sustainable Development Foundation (Thailand), and CORIN-Asia Myanmar. During the implementation of the collaborative activities, the role of women and youth had been enhanced as they had been provided with the opportunities to assume leadership or for more meaningful involvement in the activities. The Project had therefore fostered multi-stakeholder collaboration among local stakeholders, including the fisher communities, local administration, and provincial level government agencies.

## Conclusion and Recommendations

Towards the completion of the SEAFDEC-Sweden Project, SEAFDEC convened the two-day “End of Project Meeting of the SEAFDEC-Sweden Project: Fisheries and Habitat Management, Climate Change and Social Well-being in Southeast Asia (2013-2019)” on 30-31 October 2019



Proceedings of the End of Project Meeting

### Box 4. Key Messages for sustaining the initiatives of the SEAFDEC-Sweden Project

#### On Transboundary Species

- Although several species are recognized as transboundary and shared among countries in the region, each country has sovereign rights only in its own waters, but not in other countries' waters, making it difficult to undertake regional activities on and regional management of the transboundary species that has implications to other countries' EEZ. Intervention from regional bodies/organizations would be necessary in this aspect of work.
- Activities at the regional and sub-regional levels had been implemented such as those on several transboundary species, *e.g.* neritic tuna species, Indo-Pacific mackerels, anchovies, and other small pelagic species, to improve understanding of the species and to come up with science-based management of fisheries but there were obstacles that hindered data collection and stock assessment. These include:
  - o Some countries still have insufficient capacity as well as system of collecting data that could support the conduct of stock assessment
  - o CPUE data among countries are not harmonized, considering that CPUE should be standardized for purposes of stock assessment
  - o Limited expertise and methodologies for stock assessment of transboundary species using the data available in some countries
- Neritic tunas: data available in some countries were used for stock assessment and risk assessment of some neritic tuna species, such as longtail tuna, kawakawa, Indo-Pacific king mackerel, and narrow-barred Spanish mackerel in the Pacific and Indian Oceans, and came up with scientific-based recommendations that support the management of fisheries of the species in the respective areas. Results of these technical works have been submitted to the ASEAN for consideration in the development of future management plans of these species.
- Indo-Pacific mackerel: Results of the DNA study proved that Indo-Pacific mackerel is a transboundary resource in the Gulf of Thailand and requires regional cooperation for management. However, since the study could not come up with conclusive results on the status and migration patterns of the species, it was suggested that other technologies should be used, *e.g.* microsatellite. Nevertheless, a Regional Action Plan is being developed suggesting the need for regional collaboration to support better understanding of the species in the future, specifically to:
  - o Improve the capacity of the countries in data collection and analysis of the stocks of transboundary species, by mobilizing the available expertise from other national institutions in the respective countries
  - o Continue regional cooperation for data collection and stock assessment of transboundary species in collaboration with regional organizations, including in the implementation of the RPOA-Neritic Tunas and its SWG, the Regional Action Plan for Indo-Pacific Mackerel in the Gulf of Thailand
  - o Transform the scientific findings into materials that could be easily understood by policy makers and fisheries managers, as well as fishers
  - o Seek support from organizations, *e.g.* from SEAFDEC, as well as from potential donor agencies, *e.g.* FAO, USAID, JTF, to continue the activities

#### On EAFM

- Promotion of Ecosystem Approach to Fisheries Management (EAFM) has been facilitated in the ASEAN Member States (AMSs), starting with customizing the training materials on EAFM, building the capacity for fisheries officers of the AMSs on the EAFM concept, and training of trainers so that officers of the AMSs could transfer the concept to relevant stakeholders in the countries. Subsequently after a series of training activities, SEAFDEC started applying the EAFM concept in learning sites in Myanmar, Cambodia, Lao PDR, and Thailand.
- To sustain the efforts, it is necessary for the AMSs to build up their own capacity and allocate resources for the promotion of EAFM concept, and application of the concept in real situation. However, support from external agencies particularly SEAFDEC and other donors is still necessary to expedite and enhance the efficiency of the activities, *e.g.* starting from small learning sites and subsequently expanding these to larger levels.

**On Sub-regional Cooperation for Combating IUU Fishing**

- The most important prerequisites for combating IUU fishing include consistent and strong political will, and amendment of the country's legal frameworks to comply with the requirements of relevant international instruments. In preventing the entry of IUU fish into the supply chain, there is a need to combine the measures that address different points of the supply chain where IUU products can enter. However, combating IUU fishing should also take into consideration the circumstances of the countries, *e.g.* the need for securing rights of small-scale fishers as well as the livelihood/welfare of the communities.
- Comparative studies on laws and regulations were conducted by SEAFDEC for some neighboring areas of some countries in the region. Results of such studies have been beneficial for these countries in-terms of enabling fisheries officers at the local level to obtain better understanding of other country's laws and regulations; helping fishers to avoid violating other countries' regulations; serving as reference for collaborative projects in transboundary areas; and identifying the gaps and what needs to be done to ratify relevant international instruments.
- Amendment of the countries' fisheries laws and regulations could be one of the important indicators that demonstrate their alignment with emerging initiatives and international requirements, *e.g.* the EAFM and Co-management concepts, Port State Measures Agreement (PSMA), International Labour Organization (ILO) Convention, etc. However, for some countries high-level policy decisions are also important, *e.g.* for combating IUU fishing, control of fishing efforts, moratorium on destructive fishing gears, transshipment at sea or in other country's port, etc. without necessarily amending their existing laws and regulations.
- To strengthen Monitoring, Control and Surveillance (MCS), establishment of MCS networks has been initiated with the support of the SEAFDEC-Sweden Project. Through this initiative, mechanisms for collaboration and information sharing among concerned agencies within and among the countries in the region have been initiated. Nevertheless, it is necessary that regional MCS mechanism should also be promoted by relevant regional organizations, particularly for the different sub-regional areas of the region.
- The Port State Measures (PSM) is considered as very effective tool for combating IUU fishing by preventing the entry of IUU fish, particularly from foreign vessels into the country. However, there is still a need to ensure that the country's legal frameworks are compliant with the PSM requirements, including capacity building of relevant authorities in the implementation of the PSM.
- The Regional Plan of Action for Management of Fishing Capacity was developed with support from the SEAFDEC Sweden Project upon the request of Malaysia during the ASWGF Meeting. While some countries could already implement the management of fishing capacity, but to support the Southeast Asian region in the implementation of the RPOA-Capacity as a whole, there is a need for a regional platform for the countries to enhance their understanding and improve their existing laws and regulations through sharing of experiences among countries.
- The ASEAN Catch Documentation Scheme (ACDS) is also one of the most effective tools for combating IUU fishing. Implementation of ACDS not only enables the traceability of fish and fishery products, but also enhances international trade of fish and fishery products. Nevertheless, successful implementation of the ACDS is long process as it also requires several management systems to be put in place in the country, *e.g.* port-in port-out, catch report at sea, report at landing sites, report by processors. In order to overcome some difficulties faced in ACDS operations, *e.g.* limited wifi signal at sea, SEAFDEC would continue to promote the use of off-line technologies. Furthermore, besides implementing the ACDS in more countries in the region, the expansion of ACDS to also cover traceability of products from aquaculture and hatcheries intended for export should also be considered

**In addressing cross-cutting issues at the community level**

- In securing the sustainable development of the fisheries sector, there are several cross-cutting issues that need to be addressed, such as the need to enhance the capability of stakeholders to take up livelihood diversification options and to adapt to the effects of climate change for poverty alleviation. In order to address these issues, support was provided to local partners, namely: Learning Institute, CORIN-Asia Cambodia, Sustainable Development Foundation, and Prince of Songkla University (PSU), to implement the relevant activities at the local community level.
- Problems encountered during the implementation of the Project at the community level:
  - o Deterioration of habitats due to habitat destruction and inadequate waste management
  - o Declining fishery resources due to overfishing and use of destructive fishing gears
  - o Inadequate knowledge and skills in mitigating the impacts of climate change, climate variability, natural hazards
  - o Insufficient information on traditional fisheries in the governmental information system
  - o Limited roles of women in fishing communities
- Interventions for the local communities:
  - o Governance: strengthening of alliance among local government agencies toward integrated coastal zone management (ICZM)
  - o Habitat protection and resources restoration: promotion of effective household garbage management; restoration of coastal habitats such as seagrass beds, mangrove forest, artificial reefs; promotion of crab bank; habitat and resource conservation campaign
  - o Introduction of livelihood diversification opportunities to generate income and reduce illegal fishing activities: marine cage culture of aquatic species, eco-tourism, fish processing, and other options in the non-fishery sectors
  - o Establishment of marketing groups and micro-credit schemes that would provide loans within the community
  - o Adaptation and mitigation of the impacts of climate change, climate variability and natural hazards, including the promotion of alternative livelihoods that take advantage of changes in climate/season, dissemination of information on the weather conditions in advance (*i.e.*, an early warning system)
  - o Development of fishers' database with the participation of all groups of stakeholders
  - o Strengthening community capacity to develop projects and undertake activities in collaboration with government agencies, to ensure the sustainability of operations after the completion of projects with external support
- Through the activities of SEAFDEC-Sweden Project, tangible results had been generated that improve the livelihoods of the communities. However, certain activities towards long-term sustainable management of the fishery resources need to be continued after the completion of the Project in December 2019, particularly on the application of EAFM, co-management and gender integration. In this connection, technical support from SEAFDEC and other organizations would still be necessary.

#### Box 4. Key Messages for sustaining the initiatives of the SEAFDEC-Sweden Project (Cont'd)

##### On Gender Integration

- Several activities were undertaken by SEAFDEC in collaboration with other organizations and local institutions, including research on gender mainstreaming in fisheries, and development of methodologies and tools for gender analysis in small-scale fisheries and aquaculture in the region. Through such activities, SEAFDEC has established close partnerships with other organizations to work on the gender dimension, and developed the SEAFDEC Gender Strategy.
- In further strengthening gender integration in fisheries, activities should be undertaken (also with support from SEAFDEC and other organizations) towards:
  - o Building the capacity of local officers on gender concept, gender mainstreaming in projects dealing with communities, and gender analysis;
  - o Establishing a pool of gender expertise in the region;
  - o Incorporating gender analysis at the community level, e.g. collection and analysis of data on fisheries, socio-economics, livelihood, market, etc.;
  - o Promoting the involvement of women in the development of fisheries/resources management plans;
  - o Strengthening the roles and responsibilities of women in household and community activities as well as in the society;
  - o Enhancing the opportunities of women to access and utilize assets and resources, including education, training, technical advice on entrepreneurship, and other opportunities;
  - o Ensuring that women in the fisheries sector receive recognition and benefits on their own rights; and
  - o Collecting and compiling sex-disaggregated statistics on fisheries.

##### On the provision of the sub-regional platforms

- The sub-regional approach that builds upon the national systems/networks of the participating countries, while cooperation among the countries was established at the sub-regional level. Such approach has led to benefits gained by the countries in addressing priority issues under particular sub-regional focuses, enhancing the effectiveness in mobilizing resources to address such priorities, while also serving as basis for the establishment of long-term arrangements between and among neighboring countries in the sub-region.
- Focusing on the Gulf of Thailand, Andaman Sea, Sulu-Sulawesi Seas and Mekong Sub-region, the priority issues that has been addressed through sub-regional cooperation focused on:
  - o Combating IUU fishing, e.g. sharing/exchanging of information on laws, regulations and practices, and enhancing coordination/networking of initiatives among countries including MCS network
  - o Management of transboundary species, e.g. on data collection, sharing and analysis, and development of management measures at sub-regional level
- Moving forward to the implementation of the sub-regional approach in the future, the following aspects should be considered:
  - o Support for the formulation and implementation of projects using sub-regional approach, such as the BOBLME and Gulf of Thailand (GOTFish) in collaboration with relevant organizations
  - o Formalization of mechanisms for the different sub-regions in the areas of planning, implementation, and in monitoring/evaluation of activities addressing their priority issues
  - o Support for the development and implementation of action plans among countries to address issues that need to be addressed at sub-regional level, e.g. combating IUU fishing, management of transboundary species, habitat and species conservation
  - o Capacity building for countries to support activities under the sub-regional platform

in Bangkok, Thailand. The Meeting participants who comprised the stakeholders involved through the project implementation shared their experiences and lessons learned on: 1) transboundary fishery resources; 2) regional and sub-regional cooperation for the management of fishing capacity and combating IUU fishing; 3) livelihoods diversification and adaptation to climate change for poverty alleviation; 4) gender integration in fisheries; and 5) sub-regional platforms.

The shared experiences, best practices, lessons learned from the implementation of the Project, and the recommendations from the participants were distilled into a set of Key Messages (**Box 4**) that would serve as guidelines to SEAFDEC, ASEAN, Governments of the AMSs and the Partner organizations for building on the results and sustaining the initiatives of the Project.

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