

# Improving Fisheries and Habitat Management, Climate Change Adaptation and Social Well-being in Southeast Asia: the SEAFDEC-Sida Project in Focus

*Leng Sam Ath, Hotmaida Purba, Vankham Keophimphone, Imelda Riti Anak Rantty, Aung Toe, Ronaldo R. Libunao, Sarayoot Boonkumjad, and Tran Van Hao*

Hope is on the rise for millions of fisherfolk households whose livelihoods continue to be threatened by environmental degradation, overcapacity and climate change. Thanks to the new phase of the SEAFDEC-Sida cooperation which is geared on supporting the regional momentum for the development of policies and mechanisms towards formal ASEAN fisheries management arrangements which were initiated earlier under the first phase of the cooperation. The second phase of the cooperation which will run from 2013 to 2017 will concentrate on four sub-regions, namely: Sulu-Sulawesi Sea and Mekong River Basin in addition to the Gulf of Thailand and Andaman Sea, which were also the target sub-regions during the first phase. Known as the SEAFDEC-Sida Project Phase II, this phase of the cooperation is expected to benefit the poor coastal and inland communities in Southeast Asia that continue to face increased exposure to natural hazards, climate variability, competition and conflict on natural resource use. Improved fisheries policies and sub-regional plans would be designed to ensure the sustainability of livelihoods in the coastal and inland waters. Through regional consultative processes, capacity-building would be enhanced to promote the establishment of wider fisheries and habitat management mechanisms, address climate change vulnerability issues, and improve the social well-being of fisherfolk households in Southeast Asia.

Success stories are in plenty as the SEAFDEC-Sida Project sustains the need to promote the integration of fisheries and habitat management. For example, the Southeast Asian countries bordering the Andaman Sea and Gulf of Thailand now support the establishment of larger fisheries resources conservation areas. Particularly, transboundary species like the mackerels which are important to many local economies, are considered to serve as potential focus for sub-regional cooperation. Moreover, the Project has united the participating countries in making a stand against a common adversary, *viz*: fishing overcapacity coupled with illegal and destructive fishing. Having recognized the need for common approaches that can only be effectively implemented through sub-regional and regional cooperation, the participating countries through the Project, took major steps to address familiar problems by strengthening MCS Networks as well as port

monitoring which are co-requisites to improve fishing vessel registration, fishing licensing systems and overall control of large and small-scale fishing operations.

Meanwhile, as the poor continues to be the most vulnerable to climate change, the Project also aims to build up community resilience and adaptive capacity of the fisherfolk households by going through the basics of poverty alleviation. The various consultations conducted through the first phase of the Project viewed that incomes of families dependent on mangrove ecosystems could be increased based on how these areas are managed, which in turn could offer greater protection against natural hazards. Nevertheless, the integration of local knowledge in the management aspect and strengthened local organizations are expected to result in the development of adaptive capacity to the challenges of climate change. While social well-being, better observed on working conditions, safety, labor welfare, and treatment of migratory workers, remains low in the fishing industry of the Southeast Asian region, activities have been designed which could draw support from the Project, to meet the standards defined in the ASEAN Socio-cultural Community Blueprint and to recognize the role and capacity of women and youth in the economy. Improved information gathering along this line is seen as the key step in addressing the milieu of related issues.

A clear policy at national, sub-regional or regional levels holds the sustainability of the aquatic resources in the long run. Thus, the SEAFDEC-Sida Project keeps an eye on capacity building and improving policy development processes to come up with and implement fisheries management arrangements for the Southeast Asian countries. The way forward comes with the need to shift from traditional singular focus on fisheries and give equal weights to social, governance and biodiversity aspects. Ecosystems approach to fisheries management will be applied as an overall strategy to cover social, governance and resources/environment aspects (SEAFDEC, 2013). Fisheries agencies should therefore work with environment as well as other related agencies, and in the process involve coastal communities, fisherfolks and local authorities in order to come up with a unified approach to address

the important areas identified by stakeholders during the consultations organized through the Project.

## **SEAFDEC-Sida Collaborative Arrangements: Past and Present**

In the early 2000s, the Government of Sweden through the Swedish International Development Cooperation Agency (Sida) entered into an agreement with the Southeast Asian Fisheries Development Center (SEAFDEC) for the development of sustainable fisheries in the Southeast Asian countries. Specifically, Sida through technical cooperation of the Swedish Board of Fisheries and SEAFDEC inked a four-year agreement (2003-2006) which principally focused on human resource development (HRD) for fisheries management in the ASEAN member states. Such arrangement was mainly aimed at promoting and supporting the implementation of the FAO Code of Conduct for Responsible Fisheries (CCRF), which was correspondingly regionalized by SEAFDEC starting in 2000 for the benefit of stakeholders in the Southeast Asian countries. Through awareness building and training activities, the Project succeeded in promoting the Regional Guidelines for Responsible Fisheries in Southeast Asia: Responsible Fisheries Management (SEAFDEC, 2003) and as a result, three thematic priorities were identified and developed after a series of consultations in the project sites of participating countries, *i.e.* Cambodia, Indonesia, Thailand, and Vietnam, taking into account the need to integrate social, legal and environmental aspects in fisheries management. The priorities included management of fishing capacity, strengthening local fisheries management, and integrating fisheries management into habitat management. Recognizing that achieving the goal to carry out changes in the region's fisheries arena would take some time, the Project fostered the so-called process-oriented results approach that paved the way for fostering a regional cooperation in terms of fisheries management and management of fishing capacity (Wanchana, 2007).

While foreseeing the need to intensify HRD activities in the participating countries, the Project implementation was extended for another two years from 2007 to 2008 with continued support from Sida. As a result, sustained efforts were prescribed to develop and manage the fisheries potentials of the region for food security and safety of the people through regional and sub-regional cooperation in sustainable fisheries and habitat management. This also led to the understanding among the ASEAN member states and coming to terms of the implications of sustainable fisheries development in a closer and more integrated ASEAN Economic Community by 2015.

Subsequently, SEAFDEC and Sida agreed to enter into another collaborative arrangement in order to find the ways and means of managing fishing capacity in the Southeast Asian region through sub-regional cooperation initially focusing on the Gulf of Thailand and the Andaman Sea. Under the auspices of the ASEAN-SEAFDEC Strategic Partnership (ASSP), focus of the regional collaborative arrangement was placed in clarifying regional policies and priorities in support of national efforts in addressing habitat and fisheries management as well as management of fishing capacity. These were based on recommendations from the ASEAN member states through regular, broad regional consultations, and decisions of the SEAFDEC Council, taking into consideration the priorities identified by the ASEAN Fisheries Consultative Forum (AFCF), other regional partners, *i.e.* FAO/APFIC, BOBLME, RPOA and the Blueprints developed for the establishment of the ASEAN Community.

Thus, the first phase of the SEAFDEC-Sida Collaborative Project (2008-2012) initiated the process of promoting regional and sub-regional arrangements with the main objective of advancing sustainable management of fishing capacity (Shaupi *et al.*, 2011) and to some extent the fishing effort, in order to combat illegal, unregulated and unreported (IUU) fishing in the region (Awwaluddin *et al.*, 2011). The series of consultations culminated in the development of regional and sub-regional coordination for sustainable fisheries management which had been eventually strengthened, *e.g.* the establishment of regional and sub-regional Monitoring, Control and Surveillance (MCS) Networks as part of the overall efforts in combating IUU fishing (Yleaña and Velasco, 2012). Finally, through such regional and sub-regional episodes, the SEAFDEC-Sida cooperation obtained a regional momentum for crafting new policies and mechanisms necessary for the development of formal ASEAN fisheries management arrangements for the Southeast Asian region (Kaewnuratchadasorn, 2013).

Through continued support from Sida, SEAFDEC facilitated the conduct of regional and sub-regional consultations aimed at achieving consensus for addressing important fisheries issues being encountered by the Southeast Asian countries. Considering that other regional projects and organizations, especially the Bay of Bengal Large Marine Ecosystem (BOBLME) Project, the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF), and the Regional Plan of Action to Combat IUU Fishing (RPOA-IUU) are also taking the role as facilitators for the development of regional, bi-lateral or tri-lateral agreements in Southeast Asia and in order to

promote of sharing of responsibilities, the SEAFDEC-Sida Project established initial collaborative arrangements with these initiatives.

Furthermore, since a continuation of the process was deemed essential as called for by concerned parties at regional, national and local levels, and together with the recommendations raised during the earlier sub-regional meetings for the Gulf of Thailand and the Andaman Sea which highlighted on the need to strengthen collaborative efforts with other related international organizations and initiatives (e.g. Wetlands Alliance/CORIN Asia and Mangroves for the Future/IUCN), the SEAFDEC-Sida Project strived to take part in and organize regional events in concert with regional organizations, projects and initiatives, i.e. the ASEAN, FAO, UNEP, RPOA-IUU, MRC, BOBLME, Mangroves for the Future, Wetlands Alliance, CTI-CFF, among others. This has allowed the Project to enhance its regional influence and at the same time achieve significant cost savings. The importance of promoting sub-regional dialogues and cooperation is a

reflection of the diversity in management needs including resources availability and utilization, cross-boundary cooperation, and social and economic information exchange.

In addition, priority interventions and strategies addressing various fisheries and social-related issues in the sub-region were fashioned for a more action-oriented Project. Aspects such as the integration of habitat management into fisheries management, e.g. ecosystem approach to fisheries or EAF has been given more emphasis and consideration to generate efforts for better management of coastal environments and resources. Management of transboundary fish species, e.g. *Rastrelliger* spp. which is of great importance not only for the countries around the Andaman Sea but also those bordering the Gulf of Thailand, was given priority attention. This approach had served as basis for undertaking further actions in support of sub-regional fisheries management and social sustainability by addressing critical issues such as habitat and fisheries, migratory fish stocks (e.g. mackerels), rights of local indigenous groups (such as the

**Box 1. Consultations under the SEAFDEC-Sida Collaborative Project (2008-2012)**

Date	Title	Venue
28-29 March 2008	First Meeting of the Gulf of Thailand Sub-region	Bangkok, Thailand
24-26 February 2009	Second Meeting of the Gulf of Thailand Sub-region	Bangkok, Thailand
26-27 May 2009	Preparatory Meeting of ASEAN Fisheries Consultative Forum (AFCF)	Bangkok, Thailand
27-29 July 2009	Workshop on Fishing Vessel Record and Inventory	Satun Province, Thailand
20-22 October 2009	First Meeting of the Andaman Sea Sub-region	Phuket, Thailand
20-23 April 2010	Second Regional Technical Workshop on Safety at Sea for Small Fishing Boats	Samut Prakan, Thailand
13-14 July 2010	National Workshop on the Bay of Bengal Large Marine Ecosystem of Mergui Archipelago	Ranong Province, Thailand
19-22 July 2010	On-site Training/Workshop on the Integration of Fisheries and Habitat Management and Management of Fishing Capacity	Medan, Indonesia
15-17 September 2010	Expert Consultation on Managing Fishing Capacity to Combat IUU Fishing in Southeast Asia	Bangkok, Thailand
1-4 November 2010	Regional Technical Consultation on Adaptation to a Changing Environment	Bangkok, Thailand
23-26 November 2010	On-site Training/Workshop on the Integration of Fisheries and Habitat Management and Management of Fishing Capacity	Langkawi, Malaysia
3-5 March 2011	On-site Training/Workshop on the Integration of Fisheries and Habitat Management and the Management of Fishing Capacity	Myeik, Myanmar
24-25 March 2011	On-site Training/Workshop on the Integration of Fisheries and Habitat Management and the Management of Fishing Capacity	Satun Province, Thailand
26-27 July 2011	On-site Training/Workshop on the Integration of Fisheries and Habitat Management and the Management of Fishing Capacity	Ranong Province, Thailand
20-22 September 2011	Third Meeting of the Gulf of Thailand Sub-region	Siem Reap, Cambodia
11-13 October 2011	Sub-sub-region Meeting between Indonesia, Malaysia and Thailand	Phuket, Thailand
13-14 March 2012	Sub-regional Consultative Workshop of the Northern Andaman Sea	Bangkok, Thailand
28-29 August 2012	Second Meeting of Andaman Sea Sub-region	Phang-Nga Province, Thailand
10-14 September 2012	1 <sup>st</sup> Workshop on Fish Sampling Survey for Myanmar Officer	Ranong Province, Thailand
1-4 October 2012	2 <sup>nd</sup> Workshop on Fish Sampling Survey for Myanmar Officers	Yangon, Myanmar

*moken*), and management of fishing capacity including vessel record, MCS and port monitoring (e.g. landings across boundaries).

In order to exchange ideas and experiences that would clarify and address the challenges confronting the region, the Project conducted a series of technical meetings/consultations and on-site workshops in selected sites from 2008 to 2012, *i.e.* in Cambodia, Indonesia, Malaysia, Myanmar, and Thailand (**Box 1**). These fora provided the platform to discuss, explore and agree on the strategies for the development of common approaches to deal with the identified challenges. Thus, the SEAFDEC-Sida cooperation has evolved into a regional momentum for the development of new policies and mechanisms, and establishment of fisheries management arrangements to address the key issues that impede the sustainable development of fisheries in the Southeast Asian region.

### **SEAFDEC-Sida Collaborative Project: Looking at the Future and the Way Forward**

Previous approaches to fisheries management have been focused on the fisheries with little concern given to biodiversity or habitats. Through the SEAFDEC-Sida project, a paradigm shift was achieved where research on ecosystem approaches for more effective fisheries management gives equal weight to the social and governance aspects taking into account the status of resources and the environment. In simple terms, the integration of fisheries and habitat management became a new buzzword, but requires that fisheries and environmental agencies should work together more closely. In the process of integration, the involvement of coastal communities, fisherfolks (including women) and local authorities is ensured to address local poverty issues and the need for diversified income opportunities.

In reality, the absence of clear policies at national, sub-regional or at the ASEAN levels jeopardizes all efforts to achieve the long-term sustainability of marine and freshwater resources. Specifically at the regional level, it is crucial that fisheries sector-related working conditions including those of migrant workers, meet the standards set out in the ASEAN Socio-Cultural Community Blueprint. Based on the results of consultations convened through the past and present SEAFDEC-Sida collaborative arrangements and communications made with other related projects, a number of important issues and concerns have been identified which could be addressed in the second phase of the SEAFDEC-Sida cooperation.

### **Problems, Challenges and Opportunities**

The vulnerability of poor coastal communities to natural hazards and the risk of being further marginalized during the rehabilitation processes should not be ignored, but could be addressed by strengthening the participation of coastal communities in the planning and management of projects related to preserving the health of natural resources as well as in coastal development, and by creating alternative livelihoods. This could be achieved by giving due recognition and strengthening the role and capacity of women and youth, especially in generating income from fisheries-related activities and creating alternative employment, and supporting their aspirations in seeking job opportunities outside the fisheries sector.

In Southeast Asia, overcapacity in the fishing industry is the largest single fisheries management problem that threatens the sustainability of small-scale coastal fisheries as well as large-scale fishing ventures. Management of fishing capacity as well as combating illegal and destructive fishing could be dealt with in conjunction with the management of available resources and important habitats. Priority should therefore be given to sustaining the regional fisheries resources, combating illegal and destructive fishing operations, enhancing trade within and outside the region, and complying with regional requirements and international binding agreements to ensure the sustainable development of fisheries in the Southeast Asian region. Moreover, providing incentives or rewards for fishers, fishing crews and/or fishing villages as a whole, that are conducting environmentally-sound and sustainable fisheries practices, could also be initiated and sustained.

Enhanced regional understanding of fisheries and aquatic/coastal environmental management, transboundary agreements on fisheries and aquatic/coastal environmental management could be promoted through the conduct of regional, sub-regional and sub-sub-regional consultations. One of the concerns to be addressed during such fora could include the need for better fisheries/environmental management and finding a balance between promoting large- and small-scale fisheries operations and managing fishing capacity, taking into account the vulnerability of poorer coastal and inland communities that often cannot compete against those possessing the economic and political power, whether they are owners of larger fishing fleets or investors in coastal and inland infrastructures. More importantly, access to available aquatic resources and working opportunities inside and outside the fisheries sector, should also be secured.

In the present state of fisheries development, it is imperative that traditional knowledge and expertise of local organizations should be incorporated in the planning processes for the integration of fisheries management into habitat management, management of active fishing capacity and building up the systems for protection against natural hazards. Thus, the adaptive capacity of people dependent and involved in activities related to fisheries and aquatic resource utilization should be instituted to enable them to cope with the changing environments and effects of climate change. Since, well organized groups with strong social structures are reported to be more resilient than other groups with respect to the changes in the environment; therefore, there is a strong need to strengthen local organizations through enhanced capacity building.

### Sub-regional Areas for Phase II of the Project

The second phase of the SEAFDEC-Sida Collaborative Project (2013-2017) will continue to focus on the ASEAN member states, and together with the earlier sub-regional focus of the Andaman Sea and the Gulf of Thailand, the second phase now includes additional two new sub-regions, the Sulu-Sulawesi Seas and the Mekong River Basin (Box 2). This second phase of the Project will build upon the outcomes of the earlier SEAFDEC-Sida cooperation,

with the people in poor coastal and inland communities in Southeast Asia that as the main stakeholders since they continue to be confronted with declining catches, and increased competition and conflict over natural resource use and space in coastal and inland waters. Considering the distinct differences among the identified sub-regions, the Project would develop sub-regional approaches and management solutions to impending problems in



Map indicating the project areas in: (a) the Gulf of Thailand; (b) the Andaman Sea; (c) the Sulu-Sulawesi Seas; and (d) the Mekong River Basin

#### Box 2. Sub-regional areas under Phase II of the SEAFDEC-Sida Collaborative Project (2013-2017)

**The Gulf of Thailand** used to have one of the highest resource potentials in the Southeast Asian region due to its shallow topographic bottom features that form a large basin less than 85 meters deep. Fisheries in the Gulf focused on shellfish, multi-type demersal species and small pelagic species, such as the Indo-Pacific mackerel and round scads. At present however, due to failures in fisheries management and the continuing practice of open-access fisheries, the fisheries resources especially demersal resources, are greatly depleted. Records have shown that the catch per unit effort (CPUE) for example, from trawling about 20 years ago was 300 kg/hr while currently it is only 20 kg/hour. Due to the depleted fisheries resources, other problems become more acute resulting in conflicts between groups of fishers, increased illegal and destructive fishing with large amount of unregulated catch being landed in neighboring countries, and illegal fishing in trans-boundary waters.

**The Andaman Sea** includes a large continental shelf in the northern part of Myanmar waters, 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 the offshore waters. Many commercial fish species thrive on the continental slopes where the depth varies between 150 and 300 m, and there is an abundance of fish and other aquatic species in the Ayerwaddy Delta of Myanmar. Further offshore, larger pelagic species are under-exploited, such as yellow fin and big eye tuna, swordfish, marlin, and sailfishes. Seasonal changes such as the northwest monsoon and the southeast monsoon are natural checks to over-exploitation of the fisheries resources as many fishing activities are stopped especially during the northwest monsoon. As with the Gulf of Thailand, there is also a need to combat illegal and destructive fishing in the Andaman Sea as well as the need to address the unregulated and illegal landing of large amount of catch in neighboring countries.

**The Sulu-Sulawesi Seas** have great biodiversity in terms of coastal and offshore resources and embrace many important habitats such as marine turtle habitats and tuna spawning grounds. In the coastal areas, most of the bottom areas are not suitable for trawling and as a result demersal resources are relatively under-exploited. Many fishing gears such as purse seines and ring-nets are in use in the area, targeting small pelagic fishes, namely neritic tuna, round scads and mackerel. Opportunities include deep-sea fisheries where oceanic squid may have potentials for future fisheries development. Problems of the sub-region include: illegal and destructive fishing especially by foreign vessels targeting marine turtles. Destructive fishing practices, and the use of fish aggregating devices (FADs) for small pelagic fish species which also catch juvenile yellow fin and big eye tunas are also among the problems in this sub-region.

**The Mekong River Basin** is one of the world's most productive freshwater bodies, with an estimated fish production of 2.5-3.0 million metric tons each year. Its main characteristics feature floodplain and river fisheries, where the resources are being exploited using a great variety of fishing gear. Many of the most important fish species are highly migratory where their migration routes take them across national boundaries. Seasonal changes in the monsoon and annual floods are critical for the life cycles of most fish species. Threats to the sustainability of the fisheries resources come from infrastructure development across the Mekong River, which affects the annual flooding patterns and the interconnectivity within the areas of the River system, rather than from heavy fishing. Degraded floodplain habitats, in particular the flooded forests around Tonle Sap could reduce wetland productivity and fisheries potentials. In addition, there are conflicts within the fisheries as well as over land for different uses. Opportunities for sustaining or improving productivity lie in securing the seasonal flood pulse, maintaining fish migration paths, wetland management and habitat restoration, and dry season management of broodstock in refuges.

sustainable development of fisheries in the sub-regions. Focusing therefore on these four sub-regions, the Project is aimed at promoting regional cooperation and development, and implementing sub-regional agreements on fisheries and environmental management.

Since many of these communities are increasingly exposed to natural hazards, and often subjected to climate variability

and the impacts of climate change, these communities are expected to benefit more from improved policies and sub-regional plans developed through the Project that pursues the sustainability of coastal and inland small-scale fisheries. In a broader context, the beneficiaries would also include the government (local and central), NGOs, international and regional organizations. Through capacity building, the beneficiaries will be provided support and guidance in the

### Box 3. Focus points of the SEAFDEC-Sida Collaborative Project - Phase II

**Integration of habitat and fisheries management:** Linking fisheries and habitat management has been increasingly recognized as an important element in promoting sub-regional cooperation. Phase II of the Project will continue to look at shared ecosystems/habitats, shared (groups) of species and related fishing activities, based on the success of Phase I of the Project especially in raising the awareness of fishers on the need to view fisheries as an integrated part of broader natural resources and environmental management. Furthermore, placing emphasis on various social concerns, especially in terms of the working/labor conditions, has also led to increased awareness on the part of fishers on the need to address social aspects which is fundamental in terms of natural resources utilization and management of fishing capacity including the need to combat illegal and destructive fishing. Through regional and sub-regional consultations, and onsite events, a common understanding of the importance of critical habitats and ecosystems for sustainable fisheries, migratory fish stocks, the role of local organizations in fisheries management, and vessel registration and licensing processes, could be attained while awareness could be raised on the need to manage fishing capacity and reduce illegal and destructive fishing activities. As a result of Phase I of the Project, countries bordering the Andaman Sea and Gulf of Thailand became supportive of the establishment of larger fisheries resources conservation areas building upon existing management areas (e.g. MPAs, heritage sites) introduced to the countries in the Andaman Sea based on experiences in the Gulf of Thailand, as means of strengthening existing management efforts. In view of the nature of multi-species fisheries, assessing the transboundary movements of fish stocks (e.g. mackerels that migrate across national water boundaries) led to the identification of areas for potential sub-regional cooperation, which will be pursued in Phase II of the Project. Recognizing that local knowledge is an important factor in developing adaptive capacity, especially in the monitoring and control aspects, the experiences gained from Phase I of the Project including success stories highlighting community involvement in fisheries management using traditional practices, would be referred to in the implementation of Phase II.

**Monitoring, Record and Control.** One of the common problems identified in Phase I of the Project was the encroachment of larger vessels into coastal waters and destructive fishing operations in critical habitats. Phase II would attempt to reverse this trend by encouraging concerned countries to gather together and agree on joint management approaches. The experiences obtained from the series of sub-regional and regional meetings led to the identification of important management areas, i.e. MCS, vessel records and inventory, and port monitoring, where efforts to address the management of fishing capacity could be focused on. While the status of fisheries in the Gulf of Thailand, Andaman Sea and the region as a whole, had been monitored, assessed and recorded, countries in the Gulf of Thailand sub-region, i.e. Cambodia, Malaysia, Thailand and Vietnam, agreed to establish an MCS network which centers on information sharing of key issues, i.e. number and types of boats, people involved in fishing operations, and quantity of landings. Moreover, a process was also initiated to develop a fishing vessel record and inventory for the Gulf of Thailand while a draft institutional matrix for key elements of MCS was developed by the countries in the Andaman Sea. Furthermore, the need to have better port monitoring, in light of emerging requirements such as the FAO Agreement on Port State Measures (PSM), and to monitor landings across boundaries by vessels from neighboring countries, would be specifically highlighted in Phase II. The approach is to look “beyond” the PSM Agreement and the EC Regulations, by focusing on the actions needed for the region, such as improved fishing vessel registration and systems to grant licenses to fish, more reliable documentation of catches, port monitoring, validation/certification, among others. Efforts to establish a standardized Regional Vessel Record and Inventory, including the conduct of survey on larger fishing vessels and coastal fishing boats would be pursued.

**Climate Change.** The Project will continue to highlight on the issues related to climate change and adaptive responses of fisheries stakeholders. The experience from Phase I indicated that improved resources and environmental management are linked to the process of building up community resilience and adaptive capacity. Through improved resources and environmental management, including development of strategies towards climate change resilience and adaptive capacity, some of the basic elements to address poverty alleviation could be put in place. Regional and sub-regional consultations under Phase I had identified specific actions, e.g. mud crab conservation/culture and mangrove re-establishment have the potentials to build responses and adaptive capacity to the impacts of climate change, considering that mangrove crabs rely on healthy mangroves while mangroves themselves protect against natural hazards, and through management of the natural resources in mangrove areas, increased incomes from sale of mud crabs, are the tangible benefits. This would be dealt with more intensively in Phase II of the Project.

**Social Well-being.** Livelihoods in coastal and inland fishing communities, and working opportunities for fisherfolks and migrant work force in the fishing sector (including those in post-harvest and processing) are among the main focus points of the Project. Through consultative processes, relatively poor working conditions and standards, inadequate labor welfare, and unfair treatment of migrant workers in the region’s fishing industry were reviewed from the perspective of the integrated ASEAN Community. This is aimed to ensure that working conditions including those of migrant workers, meet the standards set out in the ASEAN Socio-cultural Community Blueprint. Regional and sub-regional consultations under Phase I reflected an understanding of the need to address the conditions of workers engaged in the fishing industry, their working environment and the importance of proper documentations for those working on fishing vessels as well as in improving safety standards including safety at sea. The development of enabling national policies and supporting financial mechanisms, social safety nets and protection from negative impacts of integration, globalization, and natural disasters, in support of sound and sustainable livelihood programs in coastal and inland communities dependent on and involved in fisheries-related activities, would be given focus in Phase II. Moreover, the importance of recognizing and supporting the role and capacity of women and youth in generating incomes from fisheries-related activities, alternative employment, including opportunities to work outside of the fisheries sector, would also be emphasized. Improving the estimates of the number of persons employed in fisheries and fisheries-related industries including the women work force and those in value-adding sectors such as processing, distribution and trading, would be pursued.

process of developing better management of fisheries and important habitats in the national and sub-regional contexts.

### **Project Focus Points**

Phase II of the SEAFDEC-Sida collaborative project will give specific attention to the importance of integrating and coordinating fisheries management and habitat management, and management of fishing capacity to reduce overcapacity, minimize destructive and illegal fishing, reversing environmental degradation trends and biodiversity losses, and securing productive sustainable livelihoods for communities dependent on fisheries and aquatic resources (**Box 3**). The Project also aims to sustain the implementation of regional consultative processes for the Southeast Asian region as a whole, thereby promoting the establishment of wider regional fisheries management mechanisms and agreements.

### **Project Framework**

The Project framework would still be based on the conduct of consultations with the participating countries, organizations and stakeholders at regional, sub-regional and local levels. The outcomes are expected to be directed towards the need for sustainable resource use, and increased resilience to climate variability and capacity to adapt to climate change for communities dependent on coastal and inland fisheries and aquatic resources. Therefore, plans and agreements on habitat and fisheries management including better management of fishing capacity and combating IUU and destructive fishing, will be implemented in the three sub-sub-regions, namely: the Andaman Sea, Gulf of Thailand, and Sulu-Sulawesi Seas. In addition, the two bridging objectives developed under the Project framework that encompass the establishment and implementation of regional and sub-regional agreements including social, environmental and/or fisheries sustainability, and the ways and means to combat illegal fishing, will be established under the ASEAN policy-making mechanism, in support of the development of the ASEAN Community. Moreover, the SEAFDEC Member Countries especially those bordering the targeted four sub-regions, are expected to reach a consensus on the joint approaches for conserving and protecting habitats and important fisheries resources, improving fishing capacity management, and crafting the directions that would be considered in order to improve fishing vessel registration, the processes of licensing, and working conditions onboard fishing vessels and in the fishing industry as a whole.

### **Project Implementation Strategy**

The basic strategy of the Project is to build upon the expressed needs of the stakeholders to upgrade their social well-being and the health of the environment through improved management of fisheries, fishing

capacity and better management of aquatic environments and habitats of economically-important aquatic species. In order to incorporate the relevant aspects, *i.e.* social, governance, and aquatic resources and environment, the ecosystems approach to fisheries management will be applied especially in the management aspects of larger fish resources conservation areas (*e.g.* MPAs, fish *refugia*), fishing capacity (IUU Fishing) management, social mobility and conflicts resolutions. The perspectives would include the establishment of sub-regional agreements or other arrangements of relevance to fisheries and habitat management in the Gulf of Thailand and Andaman Sea, and to support the processes for developing cooperation among the countries in the Sulu-Sulawesi Seas and the Mekong River Basin.

The Project will not be implemented in isolation by SEAFDEC alone, but will rely on cooperation with other regional/international and national bodies (Kaewnuratchadasorn, 2013a). Specifically, in addressing the issues related to management of important habitats for fisheries, fishing capacity and socio-cultural aspects, SEAFDEC will work closely with relevant institutions and organizations, *e.g.* the Learning Institute in Cambodia and the Wetland Alliance to support provincial and district capacity of monitoring and recording active fishing capacity. During the implementation, a series of training sessions or learning-by-doing sessions based on information sharing will be organized at regional, sub-regional and on-site levels to generate a wider coverage and impact. The strategy also involves capacity building for better management, including the capacity to engage more effectively the communities in the ASEAN member states (plus Timor-Leste), to maximize the involvement and participation of wider stakeholders at organized events. To augment the capacity of SEAFDEC in working at field level, strong and experienced locally-based organizations and NGOs will be tapped to facilitate local capacity-building, strengthen local organizations and restore important local habitats, based on sub-contracts or other arrangements for co-sharing of resources in support of community development, improved livelihood opportunities and poverty alleviation. A new approach put up with the SEAFDEC-Sida collaborative project, would be pursued by selecting and identifying suitable partners for local sub-contract development in consultation with national and local institutions. Another important pillar of the Project strategy is enhanced coordination among regional, international and local organizations, especially those that are concerned with environment and conservation issues, as well as those mandated to consider the production and sustainable use of the natural resources and fisheries. The Project does not intend to build up new structures, but rather, work with and build up the capacities

of already existing units and projects. Therefore, linking the Project to other organizations and ongoing projects is another factor so that adequate support is assured for enhanced capacity and sustainability of the Project. The establishment of cross-boundary management areas will be pursued by organizing sub-sub-regional consultations involving key institutions and other stakeholders. This is another important piece in the jigsaw puzzle that could maximize the impacts to stretch across boundaries in areas of the Andaman Sea and Gulf of Thailand as well as in the Sulu-Sulawesi Seas and the Mekong River Basin. This is an important strategy that would promote coordination, dialogue and agreements at various levels.

More importantly, it has become imperative to strengthen the ASEAN-SEAFDEC Strategic Partnership (ASSP), which does not only aim to promote regional collaborative programs but also regional policy dialogues with high-level authorities, e.g. ASEAN Sectoral Working Group on Fisheries (ASWGF) and the Senior Officials Meeting of the ASEAN Ministers on Agriculture and Forestry (SOM-AMAF and AMAF), on fisheries issues as well as coordination with other sectors. Exchanging experiences with other regions will be sustained, including the EU while tapping into the existing expertise and knowledge of a wide range of organizations at regional and international levels and promoting partnerships and collaboration with organizations and initiatives including the FAO, WorldFish Center, FAO Asia-Pacific Fishery Commission (APFIC), BOBLME Project, RPOA-IUU, Mekong River Commission (MRC) Fisheries Programme, International Maritime Organization (IMO), International Labor Organization (ILO), Mangroves for the Future, Wetlands Alliance, UN Environmental Programme (UNEP), among others. For an ASEAN-wide focus, attention will be given to the identified sub-regions, i.e. the Andaman Sea, Gulf of Thailand, Sulu-Sulawesi Seas, and the Mekong River Basin, which necessitates the establishment of sub-regional agreements or other arrangements relevant to fisheries and habitat management in the whole Southeast Asian region.

## References

- Awwaluddin, Piyawan Hussadee, Aung Naing Oo, and Pierre L. Velasco. 2011. Consolidating Regional and Sub-regional Cooperation to Combat IUU Fishing in Southeast Asia: Initiative of SEAFDEC-Sida Project. *In: Fish for the People Vol. 9 No. 1 (2011)*. Southeast Asian Fisheries Development Center, Bangkok, Thailand; pp 40-47
- Joeren Yleaña and Pierre Easter L. Velasco. 2012. Monitoring, Control and Surveillance (MCS) in Southeast Asia: Review of the Establishment of Regional MCS Network. *In: Fish for the People Vol. 10 No. 1 (2012)*. Southeast Asian Fisheries Development Center, Bangkok, Thailand; pp 7-12
- Kaewnuratchadasorn, Pattaratjit. 2013. Consultative regional, sub-regional and on-site processes leading up to the

development of the present Program Framework for Swedish support to SEAFDEC. Paper presented during the Seminar on the Introduction of SEAFDEC-Sida Cooperation in 2013-2017, Bangkok, Thailand, 12 March 2013

- Kaewnuratchadasorn, Pattaratjit. 2013a. New SEAFDEC-Sida Cooperation for 2013-2017: *Fisheries and habitat management, climate change and social well-being in Southeast Asia*. Paper presented during the Seminar on the Introduction of SEAFDEC-Sida Cooperation in 2013-2017, Bangkok, Thailand, 12 March 2013
- SEAFDEC. 2003. Regional Guidelines for Responsible Fisheries in Southeast Asia: Responsible Fisheries Management. Southeast Asia Fisheries Development Center, Bangkok, Thailand; 69 p
- SEAFDEC. 2013. Report of the Seminar on the Introduction of SEAFDEC-Sida Cooperation in 2013-2017, Bangkok, Thailand, 12 March 2013
- Shaupi, Mohamad, Abdul Khalil, Abu Talib Ahmad, Ahmad Saktian, Abdul Rahman, and Halimah Mohamed. 2011. Putting a Plug on Increasing Fishing Capacity: NPOA for the Management of Fishing Capacity in Malaysia. *In: Fish for the People Vol. 9 No. 2 (2011)*. Southeast Asian Fisheries Development Center, Bangkok, Thailand; pp 86-90
- Wanchana, Worawit. 2007. Beyond Regionalizing the Code of Conduct for Responsible Fisheries: ASEAN-SEAFDEC Human Resource Development Initiative. *In: Fish for the People Vol. 5 No. 3 (2007)*. Southeast Asian Fisheries Development Center, Bangkok, Thailand; pp 5-9

## About the Authors

Mr. Leng Sam Ath (Cambodia), Ms. Hotmaida Purba (Indonesia), Mr. Vankham Keophimphone (Lao PDR), Ms. Imelda Riti Anak Rantty (Malaysia), Mr. Aung Toe (Myanmar), Dr. Ronaldo R. Libunao (Philippines), Mr. Sarayoot Boonkumjad (Thailand), and Mr. Tran Van Hao (Vietnam) are members of the 2013 Regional Fisheries Policy Network (RFPN) based at the SEAFDEC Secretariat in Bangkok, Thailand.

For more information about the SEAFDEC-Sida Project, please contact SEAFDEC Program Manager, Ms. Pattaratjit Kaewnuratchadasorn (Email: [pattaratjit@seafdec.org](mailto:pattaratjit@seafdec.org)).

