

Initiatives in Enhancing the Role of Fisheries in Poverty Alleviation: Southeast Asian Regional Synthesis

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In the Southeast Asian region, the fisheries sector plays a vital role in ensuring food security of its peoples. In 2006, the total fish production in Southeast Asia was 23,948,854 mt accounting for about 15% of the world's total fisheries production of the same year (**Table 1**). The number of fishers comprising more than 2% of the region's total population does not include those engaged in fish culture as well as in ancillary fisheries activities such as selling, marketing, processing, etc. Of the total number of fishers, more than 80% are engaged in small-scale fisheries. Considering that the peoples in the Southeast Asian region are fish eaters with an average annual per capita consumption of about 26.8 kg compared to the world's average of only 16.4 kg (**Table 1**), the small-scale fishers have been the main suppliers of fish for the people.

Sustainable development of small-scale fisheries could therefore lead to poverty alleviation and economic development. However, there are many concerns that impede the sustainability of the region's small-scale fisheries which include the large number of fishers, poverty in the fishing communities, and the weak law enforcement system common in many countries in this region. The many fishers competing with each other, and racing over the decreasing fisheries resources has led to the problem of overcapacity. Being conducted under the open-access regime, the small-scale fisheries sub-sector is difficult to regulate while the establishment of an appropriate fisheries management system could not also be easily put in place.

Poverty Alleviation Programs of SEAFDEC

The diminishing daily catch of the fishers exacerbates their socio-economic conditions leading to the further worsening of their severe poverty status. In most cases, the fishers turn to illegal and destructive fishing gears and practices in order to desperately cope with their families' daily needs. This further aggravates the already deteriorating ecological conditions of the fisheries resources. As Kato (2008) very aptly put it, the fishers are perpetually entangled in vicious cycles which are the classic characteristics of small-scale fisheries in the Southeast Asian region.

Such vicious cycles are even magnified by the least benefits that the fishers normally obtain from the fish they caught, a commodity that could have improved their livelihoods. Due to limited technical and financial capabilities, the fishers are also not able to initiate small business using their catch through value-adding.

As a regional fisheries organization, SEAFDEC has been continuously balancing its programs and activities between the sustainable development of the region's small-scale fisheries and the enhancement of the socio-economic conditions of the small-scale fishers. Specifically, two projects are being implemented by SEAFDEC with the main objective of addressing poverty issues in the fisheries communities (**Box 1**).

National Initiatives in Alleviating Poverty in Fisheries Communities

In the past, strategies adopted by many countries in the region to alleviate poverty in their respective fisheries communities were geared towards accelerating foreign exchange earnings through the introduction of modern fishing technologies and intensification of infrastructure development (Kato, 2008). Most of the initiatives however, are not coordinated and to some extent very fragmented in terms of achieving sustainable fisheries. In addition, improvement of the living conditions of the poor fisherfolk had been given very little focus, thus, such strategies generally failed to improve the social and economic conditions in the fisheries communities.

The declining trend of fish catch due to the general deterioration of the fisheries resources in marine and inland waters has led many countries in the region after years of modern fisheries development, to focus their attention in addressing fisheries management issues recognizing that the current resource use patterns are no longer sustainable.

Restructuring and Enhancing Programs and Policies

It has been recognized that the main factor contributing to the depletion of the fishery resources is excess fishing

efforts not only due to the unlimited number of fishing gears but also because of the large numbers of fishers. In addition, in their attempts to catch more, the fishers use fishing gears are non-selective sometimes having fine mesh size that could trap the juveniles and undersized fishes inhibiting their growth to marketable sizes. Considering that the fisheries sector plays an important role in the region's economies, many countries have adopted ways and means of addressing overcapacity in their fisheries and alleviating poverty through fisheries interventions by restructuring and enhancing their programs and policies (**Box 2**).

Issues and Concerns in Promoting Sustainable Fisheries and Poverty Alleviation

Since the region's fisheries have started to show certain declining trend brought about by the so-called globalization through the introduction of modern fisheries during the 1950~60s, fisheries management issues have just gradually been recognized as urgently needed to address such concern. However, further recognition of the importance of fisheries management has oftentimes been masked by the rapid development of the fisheries and the economic benefits that are derived from the fisheries industry. Furthermore, gradual process of recognition by the national governments has also been noted which could also be due to the absence of clear policies on the development of a management system through government intervention in fisheries.

Table 1. Population, Fish Consumption, Fish Production and Number of Fishers in Southeast Asia

Countries	2006 Population (millions)	Per Capita Fish Consumption (kg/person/year)	2006 Fish Production (mt)	Estimated Number of Fishers
Brunei Darussalam	0.4	36.1	3,100	5,541
Cambodia	14.1	23.4	532,700	2,000,000
Indonesia	225.5	20.9	6,989,033	2,600,000
Lao PDR	6.1	28.6	107,800	na
Malaysia	26.9	55.4	1,498,732	90,700
Myanmar	51.0	24.2	2,581,780	2,000,000
Philippines	86.3	31.7	4,414,310	1,914,400
Singapore	4.5	37.9	11,676	na
Thailand	65.2	32.6	4,162,096	191,700
Vietnam	84.2	25.4	3,647,627	1,022,300
Southeast Asia's Total	564.2	26.8	23,948,854	9,824,641
World Total	6,555.0	16.4	159,897,138	-

Sources: World Population Data Sheet, Population Reference Bureau, Washington DC, USA; Annual Average of Annual Per Capita Consumption of Fish and Shellfish for Human Food: 2003-2005 Average (estimated live weight equivalent), NOAA, USA (Sourced from Food and Agriculture Organization of the United Nations); FAO FishStat Plus 2008 ; SEAFDEC (2008)

Nonetheless, with the adoption of the "Code of Conduct for Responsible Fisheries" and related Regional Guidelines, many countries in the region have now recognized the need to adopt certain management system for the sustainable development of their fisheries. But considering that fisheries management is a recent development, the short history of its development is not sufficient enough for many people to understand the fisheries resources. In addition, since the fisheries industry relies solely on the renewable natural common resources, there are two unique and special conditions in fisheries that should be addressed in order to develop an appropriate management system. These special conditions are: (1) unclear ownership of the resources, which

Box 1. SEAFDEC Programs on Poverty Alleviation in Fisheries Communities

Promotion of “One Village, One Fisheries Products (FOVOP)” System to Improve the Livelihood for the Fisheries Communities in the ASEAN Region

Funded by the ASEAN Foundation, the project aims to improve fisheries livelihood by motivating the potential people in fishing communities in the ASEAN countries through human resource development (HRD). The project activities include: Regional Technical Consultations, development of the materials for training and awareness building, case studies on the Promotion of FOVOP in ASEAN Region, awareness building on (FOVOP) to address gender and development in the fishing community, promotion of the participation of women’s groups on the community based business activities, and establishment of Regional Network on the Promotion of FOVOP in ASEAN region to maintain and enhance the momentum initiated by the project.

Guided by the principle that the identification of FOVOP project ideas should be promoted based on bottom-up approach, three major priority areas have been identified in the introduction of the FOVOP concept at the national level, namely: Human Resource Development to build the community leaders; development of special marketing strategy of FOVOP products; and production of FOVOP products. In addition, it is also the principle of FOVOP that community products and services should focus at the domestic market or at the maximum the intra-regional trade level. Considering that drastic improvement of domestic market system could be difficult, the potential products and services could be developed further and gradually promoted to cater the international markets.

FOVOP is also envisaged to activate the economic activities by selecting “One Unique Product” in the ASEAN countries in a systematic way as provided for in the Regional Strategy for the Promotion of FOVOP in the ASEAN Region adopted by the ASEAN countries. Lessons learned from successful country FOVOP activities could be duplicated to other areas where applicable, as has been done in the OVOP movement in Japan.

Human Resource Development (HRD) on Poverty Alleviation and Food Security by Fisheries Intervention in the ASEAN Region

Also funded by the ASEAN Foundation, the project is envisaged to enhance human capacity of fishers of selected rural fishery communities as well as relevant fisheries government officials and those working at the local level in order to alleviate poverty through fisheries intervention.

The HRD areas cover five thematic areas mobilizing the technical expertise and facilities of the SEAFDEC Department.

- HRD on local/indigenous institutions and co-management aims to achieve the long-term objective of poverty alleviation through the development of well-being of the individuals as well as the local communities as a whole. This would involve strengthening the local/indigenous institutions and promoting co-management in fisheries resources.
- HRD on responsible fishing technologies addresses the issue on declining trend of fishery resources from the use of destructive fishing gears and practices to compensate the fishers’ reduced daily income. Fishers in the Tsunami affected communities are the target beneficiaries of the HRD to enable them to re-build their livelihood.
- The recent expansion of aquaculture businesses and consequently, the increase in demand for fish feed has led to the diversion of low-value species from the communities to markets outside for conversion into fish feed. Appropriate technology should be promoted through this HRD to transform these low-value edible fish into value-added products for human consumption.
- People would be empowered with the capacity to become aquaculture producers by introducing appropriate aquaculture technologies through this HRD, e.g. small-scale pond and cage culture with simple technology appropriate for rural areas will mean a diversification of livelihood away from fishing.
- People living in the terrestrial areas are involved in inland fisheries as supplemental source of incomes. Due to the reduction of the inland fisheries resources and the seasonal fluctuation of stocks in terms of abundance, sustainable improvement of livelihood of these people should be promoted. The rural areas of the Cambodia, Lao PDR, Myanmar and Vietnam (CLMV countries) could be considered as priority beneficiaries of this HRD activity.

makes the resource users not responsible enough in using the resources, and (2) government intervention in management, which at present is laid down in a top-down approach (Kato, 2008). Guided by some regional instruments such as the regional guidelines, (e.g. Supplementary Guidelines on Co-management using Group User Rights (SEAFDEC, 2006)), efforts have also been made by the countries to minimize the occurrence of the two unique conditions in fisheries. For example, in order to mitigate the undefined ownership of the resources, rights-based fisheries have been introduced through group user right for the coastal fisheries. Co-management has also been popularly promoted in many countries in the region in order to delegate management responsibility and right to the resource users.

In the Southeast Asian region, small-scale fisheries play very important role in developing national economies as well as in ensuring local food security, sustainable livelihoods

and poverty alleviation. Despite the importance of the sub-sector and the large number of fishers involved, small-scale fisheries remain one of the most disadvantaged sectors, thus, support and intervention from the government is necessary in ensuring the well-being and sustainability of the sub-sector. Considering that the Southeast Asian region accounts for more than 15% of the world’s total fisheries production (**Table 1**), and since the region’s fisheries resources have already been depleted there is a need to develop appropriate alternate fisheries management system that is applicable for the region (Kato, 2008a). In addition, Kato (2008a) also advanced that the efforts of the countries to establish such management system should be recognized during the development of any resource management system initiatives and instruments.

Specifically, the issues identified by most countries in the region (SEAFDEC, 2008a) are grouped into (1) social,

Box 2. Initiatives of the ASEAN countries in addressing overcapacity in fisheries and alleviating poverty

Brunei Darussalam enforces a moratorium in fishing operation in its Zone 1 (from shoreline to 3 nautical miles (nmi)) starting in January 2008 until full recovery of the marine resources is achieved. Notwithstanding its possible impact on the country's small-scale fishers, the moratorium includes: (1) transferring commercial small-scale fishermen who own companies and hire foreign fishermen from Zone 1 to Zone 2 (from 3 nmi to 20 nmi); (2) freezing the issuances of fishing gear permits that exceed the allowable number of fishing gears in Zone 1; and (3) placing new applications of part-time fishermen and those operating fishing companies in Zone 2.

Cambodia has taken giant leaps to create rights for fishing communities through co-management. Starting in October 2000, large areas of the inland fishing grounds have been taken out of the control of the influential and rich individuals, and given to the communities to manage. Such fisheries reform promoted the transfer of role and responsibilities from the central government to local communities. Through the country's Sub-Decree on Community Fisheries, community fisheries (CF) organizations have been established in inland and coastal areas to ensure greater participation of local communities in fisheries conservation and management and allow the local communities to manage their respective fishery areas. From the beginning of the reform in 2000, the number of CFs increased from 165 to 509 in December 2007. In the Rectangular Strategy of Cambodia, fisheries reforms have been placed in one strategic side where management of the community fisheries and family fisheries is one of the priorities to address the poverty issues in fisheries. Under the fisheries reform, local communities are empowered to enable them to attain sustainable livelihoods in terms of both socioeconomic and nutritional aspects.

The National Policy of **Indonesia** includes Pro-growth Strategy (for economic growth), Pro-job Strategy (to increase/create major job opportunities), and Pro-Poor Strategy (for poverty alleviation). Although the country's general poverty alleviation program is not directly under its responsibility, the Ministry of Marine Affairs and Fisheries promote poverty alleviation in the fisheries sector by empowering the coastal communities (helping the poor to help themselves) through the Directorate General (DG) of Coastal and Small Islands; funding small scale aquaculture/fishermen through the DG of Aquaculture, DG Fish Capture and DG Fisheries Product Processing and Marketing; and intensifying education, training and extension for fisheries communities and young generation as well as capacity building for the fisheries in technology, management and information; and strengthening community fisheries organizations.

The National Goal of **Lao PDR** is to liberate the country from the group of Least Developed Countries by the year 2020 through sustainable and equitable development. Under the Ministry of Agriculture and Forestry's strategies to achieve food security, the Department of Livestock and Fisheries promote the Poverty Reduction and Agricultural Management (PRAM) by strengthening collaboration to promote education services with the objective of alleviating poverty in the fisheries and livestock sectors. National collaboration involves the National University of Laos and other departments within and outside the Ministry of Agriculture and Forestry while transboundary and regional collaboration has been initiated with regional partners of the Wetlands Alliance Program (WAP), the Udon Thani International Cooperation and Development Office (Thailand), and Thai Vocational colleges.

Malaysia implements a number of precautionary approaches to protect its fishery resources from over-exploitation and ensure sustainable fishing activities. These include: (1) moratorium on new fishing licenses issuance; (2) Exit Plan concept through Buy-Back Scheme and Matching Grant; (3) infrastructure development by increasing landing sites equipped with associated facilities; (4) installation of more artificial reefs and fish aggregating devices; (5) repair of fishermen's houses. In addition, other schemes are also being promoted to alleviate poverty in fisheries communities such as the Special Fishermen Fund (a soft loan credit scheme without interest for traditional fishermen to increase productivity and income); Fishermen Housing Scheme (loan assistance for construction of fishermen houses); People's Well-being Development Scheme (SPKR) through allocation of grants for repair and construction of fishing vessels and procurement of fishing equipment and gears; and Fuel Incentives Scheme (allocation of RM1.00/liter fuel incentives to fishing communities through cooperatives and organizations such as NEKMAT / PENESA/ Ko-Nelayan to reduce cost of fishing operations. Diversification Program for Generating Fishermen Income is also advanced through the conduct of non-formal training courses, workshops and seminars on various fisheries topics, and the Skippers Development Program is conducted for the vessels crew and fishermen.

Myanmar has created appropriate legal frameworks and formulated various strategies for the sustainable development and management of marine fisheries. Fisheries management is carried out through licensing. In accordance with the Myanmar Fisheries Laws and Regulations, some of the fisheries management authorities have been distributed to the State/Division, District and Township levels. In some cases, the DOF and fishermen work together in co-management in fisheries, especially in "leasable fisheries" (fisheries permits granted to fish in demarcated areas of fishing grounds using permitted fishing gears). Without the auction system, the DOF may grant fishing permit directly to fishermen on mutual agreement on revenue and maintenance of the fishing grounds. This fishing permit is valid for 3 or 6 years instead of the yearly permit by auction. Strengthening of the Fisheries Community for Fisheries Management and Alleviation of Poverty is being pursued in the aquaculture sector where fish farmers can get loans from the "Livestock and Fisheries Development Bank" with their documents of possessing the culture ponds as collateral. The loan granted is 1.25 million Kyats per hectare with a low interest to be paid back within 5 or 10 years. The DOF is also giving loans in inland and marine fisheries sectors to support the activities of the rural community fishers with limited financial investments.

Myanmar's Ayeyarwady Division was playing the most important role in terms of fishing, aquaculture, agriculture, and traditional processing of fishery products. Unfortunately, cyclone Nargis hit the lower part of Myanmar on 2 May 2008, causing ultimate destruction in the Ayeyarwady Division, where most of the fishing communities are located and include significant numbers of poor and vulnerable people depending on fisheries and aquatic products for income and food security. As a result, the area is left helpless and 80% of the people became jobless, homeless, and landless. As an aftermath of the Nargis disaster, all types of fishing whether artisanal or commercial have ceased to operate for the time being. Meanwhile the Government is carrying out the task of resettlement and rehabilitation of the affected coastal communities. The Ministry of Livestock and Fisheries through the Department of Fisheries have made a strategic plan to rehabilitate the fisheries communities. As a first step, the DOF is taking the responsibility of constructing small boats (8000 small boats) for use in artisanal fishing, which are mechanized with petrol engines. Fishing equipments have also been procured directly from manufacturers in the country and abroad. In the interim period, immediate replacement of fishing boats, and distribution of gears and nets to the affected in-shore and offshore fishers, was carried out. Assistance was also extended to fishers, fish farmers and buyers to resume their related fishery activities in the affected areas. Since fishery industry can avail quick income and recover the livelihoods of fishermen, the Government has allowed fishermen to go fishing in open fishery areas for three months from May 2008. Fishermen are also granted exemption from gear license fees. For the immediate rehabilitation and resumption of fishery operations, fish farmers and fishing boat owners are being provided with loans by the Livestock and Fisheries Development Bank.

Box 2. Initiatives of the ASEAN countries in addressing overcapacity in fisheries and alleviating poverty (Cont'd)

In the **Philippines**, co-management in fisheries has been implemented through the Fisheries and Aquatic Resources Management Councils (FARMCs) under the Fisheries Code of 1998 where both governments and the communities/resource users share certain responsibilities in decision-making and other functions of management. Philippines succeeded in having a legal framework where, with political will, government can support and facilitate fisheries co-management. The FARMC is a tool that enables the active participation among stakeholders, particularly the small-scale fisherfolk in fisheries management. It recognizes their competence and assigns responsibility to them for fisheries management at the local levels. However, there is a need to strengthen the fisherfolk organizations and the FARMCs to be able to competently perform their mandates in co-management. Moreover, a representation mechanism for the small-scale fisherfolk has been established through the Social Reform and Poverty Alleviation Act (Republic Act 8425) which created the National Anti-Poverty Commission (NAPC), designed to attend to poverty concerns of the basic sectors. The small-scale fisherfolk sector is represented by a Sectoral Representative as a member of the NAPC through which the 25-member Fisherfolk Council, has a 10-point Agenda to the government that consists of policy and program recommendations regarding issues in fisheries and poverty alleviation.

Thailand has implemented a number of projects in attempts to evolve a new and promising natural resource management models under the three pillars of democracy: political will, legislation, and bureaucracy as guide for the communities through series of experiential learning. The projects include: small-scale fisheries development project in Makham Pom Bay, Rayong Province from 1982 to June 1983 with the objectives of generating incomes and elevating the fishermen's quality of life; small-scale fisheries regional development project in Phang Nga Bay on the Andaman Coast of Southern Thailand (1979-1986), where many activities were implemented to address poverty issue of coastal villages; small-scale marine fisheries development project (a rural development project under the Poverty Alleviation Program) from 1985-1986 with short-term objectives of elevating the socio-economic status of marine small-scale fishermen, restoring the fishery resources in the local fishing grounds, and promoting fishing occupation; artificial reefs project under the Fisheries Resources Conservation Plan of the 6th National Economic and Social Development Plan (1988-1991), which aims to install artificial reefs in the Gulf of Thailand and the Andaman Sea in two locations a year; Children of the Sea which aimed at development a system of multi-faceted mariculture in collaboration with small-scale fishermen in Phang Nga Bay; and Coastal Habitats and Resources Management (CHARM) Project in Ban Don Bay in Surat Thani, and Phang Nga Bay in Phang Nga, Phuket, Krabi and Trang provinces, with the main objectives of evolving and testing a pragmatic co-management system as an alternative approach to the failing centrally management system. Under the 10th National Socio and Economic Plan, the Department of Fisheries has set up the Thai Marine Fishery Management Master Plan (2007-2016), structured under the vision of 'sustainable marine fisheries development attainable with the people at the center of sufficiency economy' to develop the quality of life of the fishermen.

Under the Comprehensive Poverty Reduction and Growth Strategy (CPRGS) of **Vietnam**, fisheries and aquaculture have been identified to play major roles in national poverty reduction and accelerating national economic growth. The country's strategies include investing support fishery infrastructure, power transmission lines, roads in aquaculture areas that are either newly established or converted from rice or salt production; building six national breeding centers, and environment alert centers in specialized aquaculture areas in the North, Center and Mekong River Delta; ensuring the sustainability of the growth of aquaculture production; improving the access of poor fisheries households to production inputs, information, extension services, credits and markets. The Sustainable Aquaculture for Poverty Alleviation (SAPA) program of the Ministry of Fisheries provides the basic concept for implementing more targeted interventions for poverty reduction in the fishery and aquaculture sector, ensuring more effective participation of and consultation with poor in planing for aquaculture development at all levels, capacity building among provincial and local staff to implement more effective poverty focused approaches to aquaculture, and promoting widespread communication for sharing of experiences in poverty reduction in the aquatic resources sector to promote more widespread adoption of better practices. The Government also develops the sustainable fisheries and livelihood National Action Plan and Working Group as a means of implementing capacity reduction goals and shared areas of cooperation across relevant state agencies - including standardized strategy for livelihood improvement while reducing near-shore pressures, and ensure clear linking of job conversion to poverty alleviation at national and international levels. Initial pilots for large-scale re-occupation and de-commission programs would be developed first in hardest hit (most vulnerable) communities as well as across a fisheries unit (e.g. Gulf of Tonkin trawl) to test approaches to job diversification, fleet rationalization and capacity reduction.

economic and human rights aspects; (2) sustainable resource use and access rights aspects; and (3) post-harvest benefits aspects (**Box 3** and **Box 4**).

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About the Author

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Box 3. Issues and concerns in promoting sustainable fisheries and poverty alleviation

Social, economic and human rights aspects

- Fishermen suffering from:
 - Poverty due to low and uncertain incomes, no savings, being always in debt, and lack of alternative livelihood
 - High operation costs due to the increasing prices of fishing gears, engines including spare parts and maintenance, fuel, etc. while gaining low revenues
 - Difficulty in obtaining financial assistance from formal financial system
 - Poor social conditions, e.g. housing and living conditions, education, health, etc.
 - Difficulty in accessing information
 - Unsafe working conditions during fishing activities at sea and natural disasters
- Gender inequity in fishing activities and fisheries management
- Lack of interest of next generation to engage in fishing occupation

Sustainable resource use and access rights aspects

- Unclear ownership of fishery resources under the “open access” regimes
- Multiple use of water resources results in conflicts among small-scale fishers, between small-scale and large-scale fishers, and between fisheries and other economic sectors
- Insufficient government intervention and legal framework to support fishery resources management
- Marginalization of local participation in fisheries management and policy making
- Difficulty in the application of “output control”, e.g. Maximum Sustainable Yield (MSY), Total Allowable Catch (TAC), etc., and the enforcement of management rules, e.g. Monitoring Control and Surveillance (MCS) system, for the management of small-scale fisheries
- Increased fishing efforts in terms of fishers, fishing vessels and gears
- Use of irresponsible fishing gears and methods, e.g. gears with small mesh size, electric fishing gear, and chemicals
- Exploitation of fishery resources beyond its sustainable level, resulting in the decline of resources
- Degradation of fishery habitats due to fisheries and other factors, such as conversion of fishing grounds for other development purposes, upstream dam construction, tourism activities, pollution, deforestation, coastal erosion, climate change, etc.

Post-harvest benefits aspects

- Post-harvest losses due to inappropriate fish handling technologies
- Insufficient and inappropriate infrastructures, e.g. fishing ports, roads, cold-storage facilities, market facilities
- Unavailability or inaccessibility of an effective marketing system

Box 4. Initiatives of the Southeast Asian countries in addressing the issues and concerns in fisheries sustainability

Social, economic and human rights aspects

- Supporting alternative livelihood to generate additional incomes to fishermen based on the need of local communities
- Enhancing fishermen’s access to financial sources
- Improving the living environment, e.g. development of facilities and infrastructure systems in fishing villages, house repair, etc.
- Addressing the need to mitigate the impacts from natural hazards and disasters through the adoption of for example, the “Recommendations on Safety at Sea for Small Fishing Boats in Southeast Asia (2003)” and the “Plan of Action on Regional Cooperation for the Rehabilitation and Restoration of Fisheries in the ASEAN Tsunami Affected Areas (2005)”, etc.
- Promoting gender equity in fisheries

Sustainable resource use and access rights aspects

- Implementation of the Code of Conduct for Responsible Fisheries (CCRF) at the regional and national levels, and incorporating the CCRF framework into the national fisheries policy
- Promotion of innovative fisheries management, i.e. decentralization of management authorities, co-management, rights-based fisheries, community-based fisheries, etc.
- Establishment and enforcement of legal framework relevant to capture fisheries, e.g. zoning, fisheries licensing, gear restriction, and establishment of closed areas and closed seasons, including fishing moratorium in areas where resources are over-exploited, etc.
- Strengthening of local institutions and networks in various forms, e.g. fisher cooperatives, fisher groups, fisher professional organizations, partnership between fishers and business enterprises, etc. ; and improving coordination between the fisheries and other sectors to minimize conflicts within and among the sectors
- Controlling and reducing fishing capacity, e.g. through vessel registration, vessel buy-back program, etc.
- Promoting the use of responsible fishing gears and practices, e.g. the Juvenile and Trash Excluder Devices (JTEDs), etc., to minimize the catch of trash and juvenile fishes
- Habitat conservation and rehabilitation of fishery resources, e.g. through the deployment of Artificial Reefs (ARs) and Fish Aggregating Devices (FADs), mangrove reforestation, establishment of Marine Protected Areas (MPAs) and fisheries refugia, aquatic animals restocking program, etc.
- Utilizing available statistics, information and indicators to support fisheries policy planning and management to ensure sustainable utilization of fishery resources

Post-harvest benefits aspects

- Development and application of appropriate fish preservation and post-harvest technologies, and improvement of post-harvest facilities
- Support the development of value-added products by local communities, e.g. One Village One Fisheries Product (FOVOP) of SEAFDEC to strengthen fish marketing system and generate additional incomes
- Active participation in the on-going discussion on establishment of traceability, certification and labeling schemes for fisheries products