

# Partnership for Higher Fisheries Education in Southeast Asia: Challenges, Directions and Opportunities

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Southeast Asia encompasses a large expanse of rich and productive aquatic resources in inland as well as marine waters. The contribution of fisheries to the Southeast Asian region is well recognized as it provides a source of fish protein, employment and income opportunities, and generates trade that benefits the economies of the countries. Majority of fisheries in Southeast Asia is small-scale, operated in coastal areas and typically multi-species with most fishers relying on the harvest of different species for their livelihood but rarely on one particular target species. With the demand for fish increasing overtime, projections on fish supply indicated that such demand could not be met in spite of the aquaculture sub-sector producing more, because capture fish landings are declining.

Moreover, fisheries in Southeast Asia are generally conducted in an open-access regime resulting in excessive fishing capacity and overexploitation of the limited fisheries resources. Fishers have no other way out but to resort to using destructive fishing gear and practices creating conflicts of various users' interests. Coupled by the fact that there is lack of appropriate regulatory systems for fisheries, the situation provides impacts on the aggravation of poverty for the small-scale fisheries both in inland and inshore waters.

## Initiatives towards Sustainable Development of Fisheries

Collective efforts have been exerted globally towards achieving the goals of sustainable development through the improvement of fisheries practices, management approaches and measures, governance, etc. The various instruments (**Box 1**) reflect the global concerns toward sustainable development goals through improved management practices.

The implementation of these instruments calls for greater attention by policy makers and managers to take progressive actions to ensure responsible and sustainable fisheries. However, it also poses logistical, administrative and legislative burdens for many countries particularly the developing countries, which are now experiencing

“implementation overload” due to lack of enabling resources and capacity.

Nonetheless, countries in Southeast Asia have over the years promoted regional cooperation to ensure sustainable development of fisheries. Specifically, under the framework of the ASEAN-SEAFDEC Fisheries Consultative Group (FCG), the regionalization of the global Code of Conduct for Responsible Fisheries (CCRF) exemplifies a very successful regional collective effort.

The Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region (2001) and the Strategic Plan of Action for ASEAN Cooperation in Food, Agriculture and Fisheries (2006-2010) are also examples of regional frameworks and initiatives developed by the countries in the region to ensure sustainable fisheries. Countries in the region have also been working on and committed to deepening and broadening its internal economic integration and linkages to realize the “ASEAN Economic Community by 2010” which is the end-goal of the ASEAN economic integration.

Fisheries have been identified as one of the Priority Sectors that would accelerate the region's economic integration by 2010. Roadmaps have been developed to ensure that the various measures are effectively and timely implemented to create an integrated production base and market for each sector. Fish trade within the ASEAN will be unified to promote more efficient distribution of fishery products among the countries. This is expected to create a niche for the ASEAN fishery products in the world market and increase competitiveness and potential foreign earnings. The unified market and production base will also afford the ASEAN fishers and fish farmers more leverage when trading with extra-ASEAN partners.

In order to work towards sustainable development in fisheries, it is necessary to critically understand the gaps of and the need for capacity development considering both human and institutional aspects. It is crucial that individuals and institutions involved in the fisheries sector should be able to translate policies and initiatives into actions considering the region's unique situation.

### Box 1. Important Instruments Promoting Sustainable Development of Fisheries

- United Nations Convention on the Law of the Sea (UNCLOS, 1982)
- United Nations Conference on Environment and Development (UNCED, 1992)
- Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (FAO Compliance Agreement, 1993)
- FAO Code of Conduct for Responsible Fisheries (CCRF, 1995)
- Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement, 1995)
- FAO International Plans of Action (IPOAs) for implementing various aspects of the CCRF, including national plans for (i) Management of Fishing Capacity (1999), (ii) Reducing Incidental Catch of Seabirds in Longline Fisheries (1999), (iii) Conservation and Management of Sharks (1999); and (iv) Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing (2001)
- Reykjavik Declaration on Responsible Fisheries in Marine Ecosystems (2001)

## Human Capacity Development in Fisheries

Human capacity development in fisheries has been increasingly recognized with high priority in order to achieve the objectives of sustainable development and the regional economic integration of the fisheries sector. The advancement of knowledge in improving management approaches and practices as well as the inclusive management processes considering the changes in the international development context would require high levels of human and institutional capacity.

Under the globalization, the region has been confronted with challenges threatening the sustainable development of fisheries resulting from irresponsible utilization of resources, ineffective fisheries management regime and measures, increases in trans-national and trans-sectoral issues, stiffer competitiveness of fish and fishery products in the world market as well as the more complex and dynamic international environment. In order to meet the challenges of globalization, it is necessary to set forth innovations and partnerships for human capacity development of fisheries personnel, particularly in higher education to enable the sector to continue maintaining its functions in the social, economic and eco-system dimensions.

Considering that the required levels of human and institutional capacities in the region vary considerably from one country to another, countries should tap the capacity building programs developed by various organizations in order to assist them in developing their national capacities

and address the difference gaps. Recognizing human capacity as a high priority for meeting the targets set by the World Summit on Sustainable Development, the FAO Advisory Committee on Fisheries Research (ACFR) has made changes on previous models in delivering such needs (i.e. formal training provided by experts from developed countries to developing countries) in order to accommodate the latest approaches on fisheries management. The approach is based on a more mutual learning process so that information and knowledge could be shared more efficiently and effectively by all concerned, and that capacity development should also be developed for management considering the needs of all stakeholders. Since the rather centralized and top-down approach has ignored or at least underestimated the importance of local knowledge, institutions and social capital in the process of economic and social development, the ACFR promotes the more recent trend towards merging the top-down and bottom-up approaches through co-management and other similar initiatives.

The countries in Southeast Asia through SEAFDEC have embarked on regional collaborative programs with the view to implement the Resolution and Plan of Action for Sustainable Fisheries for Food Security for the ASEAN Region. However, in the course of the programs implementation, it has become clear that the countries in the region should be supported through the enhancement and improvement of their technical capability. The existing differences in fishery related technology and human capacity development among the countries at various levels prevented such implementation from conforming with their national policies consonant with the Resolution and Plan of Action as well as the expected benefits from the implementation of the regional collaborative programs.

### **Human resources development in fisheries: A regional call**

Recognizing that national human resource development programs in many countries have expanded, developed and become accessible in accordance with their general economic development, regional human resource development activities including training and higher education have also been evolved and modified considering the changes in the development of the fisheries sector. Under such circumstances, it has become necessary and timely to re-evaluate the impact of human resource development programs at both national and regional levels.

In an effort to address the above concern, the ASEAN-SEAFDEC Regional Workshop on Human Resources Development in Fisheries conducted in February 2004, reviewed the human resource development programs

conducted at regional level, demarcated national responsibility for similar programs, and identified areas of regional priority in human resource development as well as the strategies for mobilizing technical cooperation in human resource development among the ASEAN and SEAFDEC Member Countries.

### Strategy for Human Resource Development in Fisheries in the ASEAN Region

“The Strategy for Human Resource Development in Fisheries in the ASEAN Region” (**Box 2**), adopted as the outcome of the 2004 Regional Workshop covers a wide range of HRD activities with particular emphasis on education, skills/competency training and research-based human capacity building. The Workshop also encouraged that government officials who are directly or indirectly implementing programs under the framework

of the Resolution and Plan of Action should be the target beneficiary of the “Strategy”, which highlights on the need to mobilize national capacity and resources for the promotion of HRD in fisheries as a primary a national concern.

As a follow-up action, discussion and clarification among countries in Southeast Asia have been conducted through a series of consultations on the need for human resources development in support of the implementation of the CCRF, particularly on areas related to fisheries management. During the consultations, the need to package policy and technical advices to raise awareness for policy makers/high level officials in HRD and particularly improving fisheries management was recognized. Suggestions were also made to promote community organizations and empowerment toward improved livelihood and capacity building, establish model areas and networking to support

#### Box 2. Strategy for Human Resource Development in Fisheries in the ASEAN Region

The “Strategy” is based on the following principle:

Promotion of human resource development (HRD) in fisheries is primarily a national concern, and national capacity and resources should be mobilized to maximize impact

Where there is insufficient capacity and/or resources available at the national level, support from bilateral and regional, and/or external sources should be sought

Regional HRD activities should be conducted considering the common needs to maximize the use of resources and benefits of the ASEAN member countries

Recommendations to ensure long-term support to HRD in fisheries in the ASEAN region:

- Regional collaboration should be strengthened to improve HRD activities at the national level
- Scope of HRD requirements including objectives, target groups/areas and levels to be identified in accordance with the Resolution and Plan of Action
- The development of HRD programs should not only be on technical issues but also integrating the social, environmental, legal, and other related issues as identified in the Resolution and Plan of Action
- The ASEAN member countries should conduct awareness building activities to obtain cooperation/compliance of private sector on the issues, including national requirements for sustainable fisheries
- The ASEAN member countries may conduct HRD activities to introduce new technologies to private sector, through consultation/collaboration with the target beneficiaries
- HRD activities directed towards competency/skill-based training relevant to the current fisheries situation and demands of industry can be promoted where resources and mechanisms are available
- Each ASEAN-SEAFDEC member country should conduct an inventory of programs for HRD in fisheries that contain essential and usable information from fisheries-related agencies and HRD programs operated by relevant institutions including the academe, and based on the result of the inventory, a regional database can be established and regularly updated to provide a basis for networking in HRD in fisheries
- The ASEAN-SEAFDEC member countries and international/regional organizations should use the inventory and networking to identify gaps, avoid duplication of effort and ensure complementarity of HRD activities
- Partnership and regional cooperation, including south-south cooperation, exchange of expertise at national and regional levels, international/regional organizations, among external funding agencies, government authorities and the academe should be developed by fully mobilizing the inventory and networking.
- Cost-sharing mechanisms (either cost-recovery or cost-sharing) should be encouraged to enhance the ownership and effectiveness of HRD programs in the ASEAN member Countries
- Regular monitoring and assessment of regional HRD activities should be conducted as part of the implementation of programs under the FCG mechanism

Follow-up actions to promote the implementation of the Strategy:

- ASEAN and SEAFDEC will jointly submit the “Strategy” to their higher authorities through the existing Fisheries Consultative Group (FCG) mechanism for their consideration and endorsement. In line with the existing ASEAN-SEAFDEC collaborative mechanism, SEAFDEC will be assigned as the coordinator for the implementation of the “Strategy”.
- Using the “Strategy” as the basis, and in collaboration with the ASEAN-SEAFDEC member countries and other fisheries-related institutions, SEAFDEC will formulate regional program(s) to promote HRD in fisheries. This can be an integral part of the second phase of the Special 5-year Program on Contribution of Sustainable Fisheries for Food Security for the ASEAN Region.
- SEAFDEC in collaboration with the ASEAN-SEAFDEC member countries will develop a standard format for the inventory.

capacity building, identify ways to sustain initiatives that go beyond projects' period, mainstream practices and enabling environment, and establish a regional network for HRD in fisheries.

## Directions in Human Capacity Development for Fisheries

Human capacity development is defined as “*the process by which individuals, groups, organizations, institutions, and societies develop their abilities – both individually and collectively – to set and achieve objectives, perform functions, solve problems and to develop the means and conditions required to enable this process*”.

The ability of the world's fisheries resources to generate nutritional, social and economic benefits is firmly rooted in its collective 'capacity' to manage and regulate their use. This capacity was traditionally based on inter-generational knowledge of fishers and their forebears, but with rapidly increasing populations and the rising efficiency of fishing methods, many fisheries have become increasingly dependent on the ability of the research community, resource managers and policy makers to make decisions on their behalf. Much of the efforts in capacity development for resource management have therefore been directed over recent times (Jodice, Laura W., et. al., 2001). Since a significant shift in global thinking has influenced the ways in which fisheries and their underlying ecosystems are utilized and managed, and the role in which development partners interact in this process, various international and regional initiatives came up with the recommended directions for HRD in fisheries (**Box 3**).

Capacity development is also a process, whereby individual development becomes embedded in a sustainable shift in performance contributing to collective behaviour. In this recent period of rapid change, a review of past successes and failures of human capacity development in fisheries becomes necessary in order to identify the emerging needs and opportunities for improving the stewardship of the fisheries resources. Considering that past approaches to capacity development (both in fisheries and other sectors) focused primarily on technical support to individuals through skill-based training and institutional strengthening, more attention should also be given to non-sector specific knowledge and skills such as business management, socio-economics and good governance.

The FAO Strategic Framework for Human Capacity Development in Fisheries (FAO/ACFR 2004) was designed to cover capture fisheries and aquaculture in inland and marine waters, including industrial, artisanal, subsistence and recreational fisheries. As suggested under the FAO

### Box 3. Recommended Directions for HRD in Fisheries

- Putting more emphasis on sustainability and the environment, as reflected in the targets set by the World Summit on Sustainable Development
- Pushing public management towards decentralization, strengthening relationships between government and civil society, privatization and deregulation
- Increasing emphasis on good governance - e.g. participation, accountability, transparency
- Wider recognition of the need for donor initiatives to be both cost-effective and demand-driven, with more emphasis on partnership
- Taking advantage of the information and communications revolution, with the internet transforming the way people and organisations can communicate and learn
- Increasing creativity and innovation from developing countries
- Promoting greater awareness of the need for a more integrated, holistic approach to development, rather than the historical emphasis on sectoral approaches

Strategic Framework (**Box 4**), capacity initiatives should take a holistic view of the overall context which can be equally applied to individuals, organizations, discrete and networked sectors as well as the wider enabling environment that represents the societal context in which development processes take place.

## Partnership in Human Capacity Development for Fisheries in Southeast Asia: Challenges and Opportunities

There is a wide range of delivery mechanisms that can be used for capacity development, which can be categorized into face-to-face and remote mechanisms. Face-to-face mechanisms include: classroom-based training, seminars, conferences and workshops, research and exchange programs, demonstration trials, on-the-job training; while remote mechanisms include budget/program support, publications, manuals/training materials, radio and television, mentoring, distance-based training/learning, and mechanisms based on information and communication technology (ICT). Such mechanisms can be used in the fisheries sector, with increasing emphasis on remote, internet-based approaches. However, traditional mechanisms could remain vital although the way these are structured and delivered requires some changes, especially with regards to more active participation of the beneficiaries. It has also been increasingly recognized that a mixed use of the mechanisms may be appropriate, and that the mechanisms may have to be delivered through partnerships of service providers. Capacity development initiatives must therefore be participatory in design, implementation and monitoring, and must build on core-capacities through a two-way process of knowledge transfer. The key challenges and opportunities for more



effective human capacity development in fisheries are outlined in **Box 5**.

## Way Forward

It is inevitable that capacity development in fisheries in both human and institutional aspects will continue to form an important integral part of development cooperation. Development of fisheries today has become more complex, considering the various emerging issues such as resource utilization, management, governance, market and trade, economic development and partnership, etc. Several issues encountered by the sector can no longer be addressed through a sectoral approach. Partnership and cooperation at all levels need to be reoriented recognizing this nature. SEAFDEC fully recognizes the fisheries situation in the region and the linkages between development and management of fisheries on one hand, and human capacity development on the other. Recognizing also that development and management, and human capacity development are processes that need to be converged, SEAFDEC will pursue the development and management of fisheries in partnership with other international/regional organizations, the academes, etc. and that partnership in human capacity development would also be enhanced. With regards to higher education, SEAFDEC believes in the complementarity between the academic broad-based knowledge, and hands-on and practical experience in the empirical situation. Guided by the above directions, concepts and opportunities, existing projects/programs could be venues for incorporating human capacity development aspects that could be explored further through partnership in a case-to-case basis.

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### Box 4. FAO Strategic Framework for Human Capacity Development in Fisheries

**Strategy 1:** Capacity development focused at the appropriate level

Focus should be towards four levels: (i) individuals, (ii) institutions and organisations, (iii) sector-wide and (iv) at the enabling environment.

**Strategy 2:** Capacity development built upon, and widening the knowledge and skills of all stakeholders

Three groups of fisheries-related capacity needs should be addressed, i.e. (i) fisheries science and research, (ii) fisheries sector management and (iii) societal skills

**Strategy 3:** Development of regional capacity-development networks

To develop regional networks for addressing common issues and promoting self-reliance

**Strategy 4:** Identification and recognition of regional centres of excellence

To identify and recognize centres of excellence linked to regional networks for specific scientific and managerial skills and knowledge which could act as potential service providers, where the centres of excellence could be research facilities, academic institutions, private sector businesses or state sector management institutions.

**Strategy 5:** Establishment of improved cross-sectoral linkages and cooperation

To establish better cross-sectoral linkages, including horizontal links within the fisheries sector, e.g between researchers and policy makers or between fishers and researchers, and also better linkages between sectors to understand and manage the impacts of other sectors on fisheries

**Strategy 6:** Appropriate delivery mechanisms to suit local circumstances

To tailor delivery mechanisms through a participatory process to ensure they meet the particular needs, capabilities and funding of the recipients, with appropriate matching to service providers

**Strategy 7:** Sustainability of capacity-development initiatives

To establish long-term capacity-development initiatives where (i) individuals are encouraged, and able, to reinvest their new knowledge and skills in the fisheries sector and (ii) the capacity of institutions is strengthened to adapt to change

**Strategy 8:** Application of results-based management to capacity-development approaches

Improve the understanding of capacity-development 'success' and its measurability, to ensure that initiatives build upon prior experience and lessons learned.

## Box 5. Key Challenges and Opportunities for More Effective Human Capacity Development

### Human Capacity Development Objectives

- Capacity development approaches must take greater cognizance of the overall societal/political context in which initiatives operate
- Enhance coordination and cooperation between international institutions, national governments and local stakeholders to define and agree on capacity building objectives, ensure complementarity and avoid duplication
- Place greater emphasis on institution building at the national and regional levels
- Design programs that can support a process of continuous in-country capacity building that extends beyond the timeframe of the service provider's activities - i.e., build "sustainability" into the capacity building effort
- Clearly differentiate short, medium and long-term activities of capacity building programs
- Assist countries, particularly least developed countries, determine their capacity building needs and design activities and programs to meet their needs
- Build national networks of experts and institutions at different levels and in different sectors needed for policy development and implementation.
- Strengthen south-south cooperation, directly between national institutions, and by engaging relevant regional and sub-regional institutions
- Promote south-south cooperation in capacity building to build on ongoing south-south efforts that are already underway
- Ensure that research institutions are beneficiaries of capacity building, given that individuals often stay longer in posts in these institutions than in governments

### Human Capacity Development Process

- Capacity building initiatives must provide for flexible and suitable learning pathways
- There is need for much better integration of initiatives based on regional/geographical, intra-sectoral, inter-sectoral, and vertical linkages
- Appropriate incentives must be built into capacity development initiatives
- When needed, assist developing countries prepare requests for assistance and project proposals
- Ensure programs are implemented based on accurate needs assessments
- Ensure that capacity building programs are flexible and adaptable, in order to meet evolving needs
- Develop active partnerships between service providers and beneficiaries to ensure that national needs and priorities are met by activities which also reflect national conditions
- Involve national experts and institutions, including from local communities, in the development, implementation, follow-up and evaluation of capacity building activities
- Place more emphasis on including civil society in capacity building activities
- Ensure all activities are based on a participatory process benefiting from multi-stakeholder ownership of national policy analysis, design and implementation
- Adopt a participatory approach in capacity building to promote good governance that is supportive of sustainable development
- Arrange back-to-back meetings at both regional and international levels to ensure a cost-effective method to enhance broad participation and promote policy integration
- Complement training and seminars with intensive and participatory, country-based, learning-by doing activities

### Human Capacity Development Activities

- Develop more activities which assist countries with the complete policy cycle, including policy analysis, design and implementation
- Further develop activities to assist countries to comply with international obligations under multilateral trade and environment agreements
- Increase public awareness and understanding of environment, trade and development issues through educational programs
- Develop a global database on capacity building programs and activities being implemented in countries and regions to assist providers and beneficiaries in ensuring efficient provision of, and participation in, various activities
- Consider the effects of trade liberalization on monitoring and enforcement of MEAs
- Include a policy implementation phase in capacity building activities whenever possible
- Support additional research and case studies to clarify the relationship between poverty, development, management, trade and environment
- Those delivering capacity development may themselves require capacity development for effective delivery

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