



Illegal Fishing

The word “Illegal” is the first part of the IUU (Illegal, Unreported and Unregulated) fishing. It is a fact that IUU fishing contributes to the overexploitation of fish stocks and is a major obstacle to the recovery of fish populations and the ecosystems. Illegal fishing in the Southeast Asian region has become a serious problem impeding all attempts to manage fisheries resources and fish stocks, and has also negatively impacted on the development of sustainable fisheries and food security in the region. Estimating the level and extent of illegal fishing would be extremely difficult and has not previously been done in a systematic way on a global scale. Fishing vessels are highly mobile, especially those fishing under access agreements in the EEZs other than that of the flag-state, where EEZs can extend up to 200 nm from the coast. Agnew *et al.* (2009) made a world-wide analysis of IUU fisheries by reviewing the situation in 54 countries and on the high seas, and estimated that the total value of losses from the current IUU fisheries worldwide is between USD 10.0 billion and USD 23.5 billion annually, representing between 11 and 26 million tons. Another document from Southeast Asia produced by BFAR (2008) indicated that the estimated loss of the Philippines from illegal fishing

based on poaching by foreign fishing vessels and destructive fishing in coral reefs due to blast and cyanide fishing in 2008, was around PHP 26.5 billion representing about 458,850 tons.

Illegal Fishing in the Southeast Asian Region

The demand for fish protein continues to increase, but a large number of the world’s fish stocks are currently being depleted, a case which is worsening in Southeast Asia which has been linked to the illegal fishing. Somboon (2009) identified the two major causes of fisheries stocks’ depletion as: 1) rapid declining fish stocks within the EEZs due to increased fishing capacity and fishing efficiency; and 2) quick growth of fisheries industries particularly in many Southeast Asian countries, that are “pushing” the fishers to illegal fishing and to poach in seas beyond their maritime borders, thus, creating a source of diplomatic tensions.

It is a fact that some countries in the Southeast Asian region have fishers/fishing vessels conducting illegal fishing in neighboring countries and even outside of the region. In addition, many distant water fishing nations

outside Southeast Asia are also conducting illegal fishing in Southeast Asian waters, some vessels even targeting sea turtles in the Sulu Sea (BFAR, 2008) or targeting large pelagic species such as tuna in the Andaman Sea. However, few cases of illegal fishing have been found in the boundary waters between two coastal states such as Brunei Darussalam and Sabah, Malaysia (Mazaini, 2009).

Fisheries Production in Southeast Asia

The Southeast Asian region is one of the world's major producing areas in terms of capture fisheries, contributing about one-fourth of the global production in 2007, which averages 14 million tons from marine and 2 million tons from inland fisheries (FAO, 2009). The major producers from marine capture fisheries include Indonesia, the fourth largest of the world followed by the Philippines, Thailand and Vietnam producing 4.9, 2.3, 2.2 and 2.0 million tons, respectively. During the last two decades, gradual increased production of up to 6% annually has been noted as shown in Fig. 1.

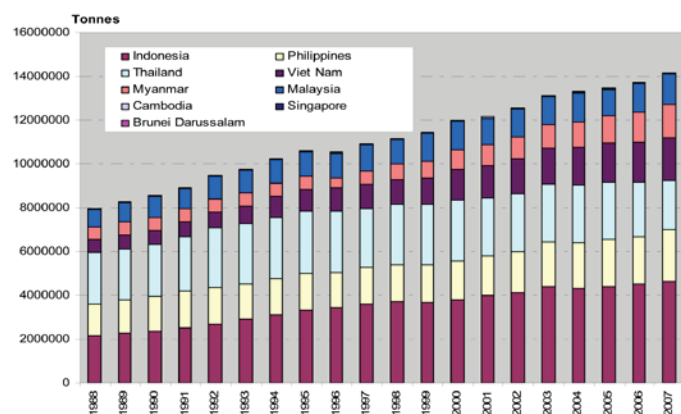


Fig. 1. Marine capture fisheries production in Southeast Asia, 1988-2007 (FAO, 2009)

Considering the increasing trend of the overall fisheries production in the Southeast Asian region during the past two decades, in particular Thailand, its marine production based on national statistics could have included imported fish from Malaysia, Indonesia, Myanmar and others. Its national marine production, as recorded in the statistics, is therefore not a reflection of the real status of the fisheries resources in Thai waters, in particular the Gulf of Thailand where the trend of fisheries resources has been drastically declining since 1970s and 1980s (Fig. 2). Nevertheless, the trend of marine production in Thailand also shows a slight increase until the present, where the need for increased amounts of fresh fish is linked to the rapid growth of the fishery industries such as surimi and other fish processing plants. Thus, the demand of raw fish materials to supply those processing industries could be higher than the existing marine resources in the Thai EEZ.

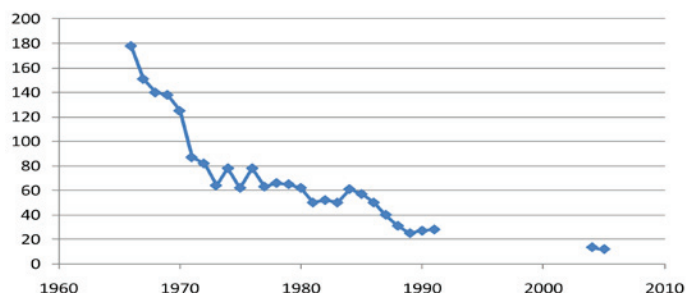


Fig. 2. The catch rates (CPUEs) of demersal resources caught in the Gulf of Thailand during 1966 to 1991 based on survey by Research Vessels Pramong 2 and 9 (National Seminar, 1999) and during 2004-5 by the MV SEAFDEC 2 (SEAFDEC, 2008)

Joint Ventures and Increasing Number of Commercial Fishing Vessels

Many fisheries joint ventures and/or licenses providing permits for fishing in the coastal states outside Thai waters have been developed in cooperation with neighboring countries such as Malaysia, Indonesia, Myanmar, Brunei Darussalam, Cambodia, and other countries in the Southeast Asian region since the 1980s. This has led to the increasing number of commercial fishing vessels by 7% during the period 1985 to 1995 and 7.5% from 1997 to 2001. The total registered fishing vessels in 2001 was 18,182 comprising 49% trawlers, 26% gillnetters, 8% purse seiners, 5% push netters and 12% small-scale fishing boats (Mala, 2006), where 75% of these vessels operate within the Thai waters while the other 25% operate outside the Thai EEZ. This does not include the non-registered vessels doing illegal fishing outside the Thai waters or fishing within the Thai EEZ illegally and are "unregulated". It has been well known and is being acknowledged by the countries in the region that the real numbers of active fishing vessels in the region have not been reflected in any official statistics.

Characteristics of Marine Fishery Frameworks in Southeast Asian Countries

Zoning and relative classification of small-scale and commercial fisheries

Each of the countries in the region have their own national classification of coastal and commercial fisheries based on specific definitions indicated in their respective rules and regulations, and used as basis to manage/regulate their marine capture fishing activities (SEAFDEC, 2003). The areas zoned for different types of fisheries (Box 1) also indicate a segment close to shore reserved for smaller-scale fisheries, defined as coastal, traditional, artisanal, or municipal depending on the national definition and regulation.

Fishery Laws and Regulations

During the Regional Consultation on Deep-sea Fishery Resources and Exploration organized at the SEAFDEC Training Department from 23 to 26 May 2009, inputs relevant to the significance of responsible fisheries management to combat illegal fishing were provided by selected ASEAN countries.

Indonesia

Under the Law of the Republic of Indonesia, the waters under international law are situated within the sovereignty and jurisdiction of the Republic, and the Indonesian EEZ containing potential fisheries resources and areas for fish culture is a blessing from God the Almighty vested upon the Indonesian people, adhering to the philosophy of life based on the Five Principles of Pancasila and the 1945 Constitution. Thus, it should be well utilized for the prosperity and welfare of the Indonesian people. The national development based on the archipelagic principle (Wawasan Nusantara) should provide justice in its utilization by prioritizing the expansion of working opportunities and increasing the living conditions

of fishers, those working in fish culture, and/or other parties concerned in fisheries, and to foster the sustainability of fisheries resources and its environment. However, Law No. 9 of 1985 on Fisheries which is still in force, had not been able to deal with all aspects of management of the fisheries resources and to anticipate the growing needs for laws and regulations together with the development of technologies in the management of fisheries resources. Therefore, it was deemed necessary to establish a Law to replace Law No. 9 of 1985 on Fisheries.

Myanmar

The laws for marine and coastal fisheries in Myanmar provide that, no person shall engage in inshore or offshore fisheries without a license, and that holders of the licenses shall not violate any of the conditions contained in the license, which should not be transferred. All fishers serving onboard a fishing vessel have to register with the Department of Fisheries. Inspectors should not be harassed while performing their duties. Moreover, a number of provisions directly refer to activities that are considered to be illegal. Thus, it is not even allowed to keep explosive substances,

Box 1. Zoning areas reserved for small- and commercial-fisheries with respective classifications

Countries	Small-scale/Coastal Fisheries	Commercial /Industrial Fisheries
Brunei Darussalam	Zone 1: reserved for artisanal fisheries, but they can also fish in other zones	Zone 2: Trawlers less than 350 hp and purse seiners less than 20 m Zone 3: Trawlers with 350-550 hp and purse seiners with 20-30 m Zone 4: Purse seiners more than 30 m
Cambodia	Zone 1: fishing with/without engine (from 5-50 hp) Zone 1 extends to the 20 meter depth curve	Zone 2: Commercial fisheries more than 50 hp
Indonesia	Zone 1: Outboard engines less than 10 hp or 5 GT Trawls, purse seines and gillnet are not allowed, except for purse seine with a head rope less than 120m Zone 2: Inboard engines less than 50 hp or 35 GT Trawl and purse seine are not allowed, except purse seines with a head rope less than 300 m.	Zone 3: Inboard engine less than 200 hp or 100 GT. Purse seine is allowed, except those with a head rope less than 600 m Zone 4: Open to all fishing vessel and fishing gear
Malaysia	Zone 1: Small-scale fisheries using traditional fishing gears (<i>i.e.</i> other than trawls and purse seines) with vessels less than 10 GT (but can also fish in other zones)	Medium and large-scale fisheries using commercial fishing gears such as trawls and purse seines Zone 2: Vessels less than 40 GT Zone 3: Vessels from 40-70 GT Zone 4: Vessels above 70 GT
Myanmar	Zone 1: Vessels of less than 30 ft or using less than 12 hp engine	Zone 2: Vessels more than 30 ft or using more than 12 hp engine
Philippines	Zone 1: fishing with vessels of less than 3 GT (Can also fish in zone 2 (Smaller (3.1-20 GT) and medium-scale (20.1-150 GT) commercial vessels could operate within Zone 1 (within 10.1-15 km) if authority is granted by the concerned local government unit (LGU))	Zone 2: Smaller commercial vessels (from 3.1-20 GT) and medium-scale commercial fisheries (20.1-150 GT) Zone 2: Large-scale commercial fisheries: more than 150 GT operating in Zone 2
Thailand	Zone 1: Vessels of less than 5 GT	Zone 2: Vessels of more than 5 GT
Vietnam	Vessels with no engine and with engine but less than 40 hp	Vessels with engine more than 40 hp

poisons, chemicals and such other dangerous substances that are not permitted for use in fishing onboard a fishing vessel. It is not also allowed to dispose of living aquatic creatures or any materials into the Myanmar marine waters that could cause pollution of the water or harass the fishes and other marine organisms. It is not allowed for any person to search for and collect any marine products without a license and establishment of a fishery on commercial scale for sports fishing is not permitted without a license. The holder of the license shall pay the duties and fees as specified by the Department of Fisheries, and shall comply with the regulations and directives prescribed by the Department. The license holder shall provide the necessary services free of charge, to persons who have been assigned to conduct research onboard fishing vessels as well as to observers and trainees. The holder shall appoint only those fishers who are registered with the Department and the holder has the right to carry out fishing activities in accordance with the terms prescribed in the license.

Philippines

The Philippine Fisheries Code, which was enacted in 1998 has been implemented and enforced at local (village and municipality) and national levels, incorporating international trends related to fisheries. The achievement of food security is identified as the primary goal in the utilization, management and conservation of the country's fishery resources. Other considerations include the exclusive use by Filipinos, the importance of sustainable development and coastal resource management, the preferential rights of municipal fishers in municipal waters and state support/services, and the participation of the public sector. The State shall promote exclusive use of fisheries by Filipinos, imposition of resource rent and licensing especially for aquaculture and commercial fisheries. The State is also responsible for the establishment of closed seasons and catch quotas, rules on introducing foreign species and protection of endangered species, and follow up on the requirements for environmental impact studies and compliance for projects, and the monitoring and control of Philippine waters. The municipal government shall manage the municipal waters, with exclusive use of municipal waters and preferential rights in fishery privileges for municipal fishers, as well as the option of opening the area from 10.1 to 15 kilometers to commercial fishing. Commercial fisheries shall be subject to licensing and regulation of the State. The State shall provide the necessary support as well as regulatory mechanisms for the development of post-harvest technologies and ancillary industries, including the importation and exportation of fishery products.

Thailand

The Fisheries Act, B.E. 2490 of Thailand was drawn up in 1947 before the development of marine fisheries. The Act was drafted primarily with inland fisheries in mind and has been amended twice, in 1953 and 1984. The Act is composed of six chapters with 73 sections which include fisheries management and conservation, aquaculture, registration and application for permission, collection and fixation of fisheries tax, fisheries statistics as well as the provision of penalties. The Minister of Agriculture and Cooperatives or the Provincial Governor is empowered to impose some fisheries regulations by proclaiming Ministerial Notifications. These regulations are relatively easy to amend and have been revised from time to time. Since 1947, there have been many regulations imposed by the Ministry or Provinces such as for example, prohibiting the use of trawl nets of various types (such as trawl nets, push nets, shrimp push nets) in motorized fishing boats operating within 3,000 meters from the shore line and within a radius of 400 meters from stationary gears licensed by DOF (20 July 1972); closed areas for three months every year during spawning and nurturing seasons of the Indian mackerel in three southern provinces (28 November 1984). Under Thailand's fisheries law, all kinds of fishing gear fall into either: (i) licensed fishing implement; or (ii) non-licensed fishing implement. Licensed fishing implements are specified in Ministerial Regulation No. 1 (1947) which has been revised and added to Ministerial Regulation No. 17 (1978). The Fisheries Act covers both inland and marine fisheries where each Provincial Council is empowered to proclaim any fisheries within the province as Preservation Fisheries, Concession Fisheries, or Reserved Fisheries, subject to the Minister's approval. Preservation fisheries include areas in or near monasteries, in navigation locks, weirs, dams or other places suitable for the conservation of aquatic animals. Fishing in such areas is prohibited without the permission of the Director General of Fisheries.

Vietnam

In Vietnam, government policies are defined in laws, decrees, ordinances, circulars and regulations, the last of which are embodied at the provincial level. Provinces are the lowest level at which regulations can be drafted, consistent with the national legislation. A Fisheries Law drafted by the Ministry of Fisheries (MOFI) with help from the Norwegian Agency for Development Cooperation (Norad) and the Food and Agriculture Organization (FAO) of the United Nations, was passed by the Vietnamese National Assembly in November 2003, which took effect on 1st July 2004. The government agency responsible for the administration, development and management of the fisheries is now the Ministry of Agriculture and Rural Development (MARD),

and at the provincial level the Department of Agriculture and Rural Development. The People's Committees (PPCs) of the provinces are the administrative authorities to implement the Ministry's fisheries policies and regulations. PPCs can make resolutions, decisions, standards and quotas on fisheries within their respective provinces, which should not be in conflict with the regulations of the Ministry. In charge of fisheries management and resources protection is the Department of Capture Fisheries and Fisheries Resources Protection (DECAFIREP), which has sub-branches at provincial level. For the inspection, control and surveillance, enforcement is to be implemented by the "Ministerial Inspection" at central level and its branches at provincial level, which are separate from the functions of the DECAFIREP. In reality however, these two management or control functions are not well coordinated and the agencies concerned are not cooperating. Thus, in some cases, management and control is not effective. For the management of fisheries, there are different types of legal documents that regulate the fishing activities such as Ordinances, Enactments, Circular letters, and Decisions and Instructions.

Brunei Darussalam

References to Brunei Darussalam fishery limits are indicated in the Fisheries Act or related enactments, where fishery limits extend to 200 miles from the base lines. In practice Brunei fishery limits extend to the median line relative to base lines of other countries. His Majesty the Sultan of Brunei may by order, designate any country outside Brunei Darussalam and, in relation to it, areas within Brunei Darussalam fishery limits in which, and descriptions of fish for which, fishing boats registered in that country may fish. A foreign fishing boat presently not registered in a country designated under subsection (1) shall not enter Brunei Darussalam fishery limits except for a purpose recognized by international law or by any convention for the time being in force between His Majesty's Government in Brunei Darussalam and the government of the country to which the boat belongs; and any such boat which enters those limits for such a purpose. The Act declaring Brunei Darussalam fishery limits and definitions states that a "fishing boat" means any vessel being employed in fishing operations or any operations ancillary thereto. A foreign fishing boat registered in a country shall not fish or attempt to fish within Brunei Darussalam fishery limits, except in accordance with the terms and conditions of such license as may be required in respect of such boat under the Fisheries Act and except in an area and for descriptions of fish that for the time being is designated under the Act in relation to fishing boats of that country.

Fishing Capacity

Several national/regional efforts have been initiated to manage fishing capacity. The SEAFDEC-Sida Collaborative Program Workshop held in Phuket in September 2006, discussed the experiences and lessons learned throughout the region and identified major issues related to management of fishing capacity. A strong recommendation from the workshop indicated that existing policies on the responsibilities related to the management of fishing capacity should be revised to improve the national planning and management of fishing capacity. In addition, a consultation process with the concerned national agencies should be conducted to promote the systems and measures to freeze/control fishing fleets/boats at its present level, as a starting point. It was generally agreed that the available data should be fully used while at the same time revision of the existing data collection systems should be carried out in order to reduce the data gap between recorded data and actual figures in support of improved management of fishing capacity.

It was also noted during the 2006 Phuket Workshop that there are no aggregated data on fishing capacity at national or regional level. Available information is more site-specific and relates to projects rather than to the regular statistical information system. The critical problem is the lack of "statistics" with respect to fishing capacity at all levels but especially on smaller scale fishing capacity. Furthermore, over-capacity of fisheries was found to be a primary cause of the major problems within the fishery sector, *e.g.* IUU-fishing, degradation of the ecosystem and habitats, conflicts among/between fishers and other stakeholders, declining catches and changes in catch composition including low value or immature fish. The uniqueness of fisheries in the region requires relevant management approaches and tools, and the establishment and development of the national plan of actions for management of fishing capacity is a process and not an end product, and improvement of fishery management could not be done without addressing the issue of management of fishing capacity.

Policy and Institutional Issues

The 2006 Phuket Workshop highlighted the importance of addressing the lack of political will and the problems with lenient political interventions to combat illegal fishing, either large- or small-scale. Strict enforcement of laws together with severe fines is therefore called for. This is also reflected in the need to address conflicts and ambiguities between departments and ministries as well as to address conflicts between fisheries and other sectors, *e.g.* tourism

for coastal and marine resources and space in coastal areas. There is a need to build awareness at the policy-makers level to pave the way for understanding the fishing capacity related issues. Subsequently, policies should be revisited to ensure that these are not ambiguous and that the direction should lead towards supporting fishing capacity reduction. These policies should be spread through all levels down to the fishers (provincial level, local government, fishing communities and institutions, schools).

The institutional capacity of many countries in the ASEAN region for Monitoring, Control and Surveillance (MCS) is in general too weak to stop IUU fishing and enforce regulations. Identifying and recording the amount of boats and gears that are contributing to destructive and excess capacity is therefore a key institutional challenge. The institutional authority to register fishing vessels and to issue fishing licenses for boats, gear and people vary between countries. It is only in Brunei Darussalam, Malaysia and Vietnam that the whole process of registration and licensing is done by their respective fisheries departments. In other countries, registration (of larger boats) is the mandate of the maritime or merchant marine departments with the licensing still with the fisheries departments. For smaller vessels, the picture is a bit that of a merry mix-up with the added involvement of local government units, people's committees and other local authorities as identified by the individual countries.

Another constantly repeated shortcoming in reducing fishing capacity is the lack of job opportunities for fishers to exit from fisheries. This constraint is also a cause for major social concerns and there is a need within the fisheries, in cooperation with other institutions, to establish a social and economic safety net for the vulnerable/poor people in fishing communities.

Regional Level Issues

Under the new ASEAN charter and in the development of the ASEAN Community by 2015 there are several regional issues that include social aspects, economic integration, environmental aspects and a whole broad range of marine and inland natural resources management of which aquatic resources/fisheries are one of the most obvious regional dimensions in an area like Southeast Asia. With the requirements by the 2007 Senior Officials Meeting-ASEAN Ministers of Agriculture and Forestry (SOM-AMAF) to address both marine and inland fisheries in the development of an ASEAN Regional Management Mechanism (presently called the ASEAN Fisheries Consultative Forum) and with vast range of seas (semi-enclosed seas) and large rivers

Box 2. Sub-regional management areas

1. Gulf of Thailand (Cambodia, Malaysia, Thailand, and Vietnam)
2. Andaman Sea and Northern Malacca Strait (Indonesia, Malaysia, Myanmar and Thailand plus India)
3. South China Sea (which could be subdivided in its northern part with Gulf of Tonkin, including Vietnam and China and its southern part of Brunei, Indonesia, Malaysia (Sabah and Sarawak) and Philippines – plus Vietnam)
4. Sulu Sea or Celebes Sea (Indonesia, Malaysia, and Philippines)
5. Arafura Timor Sea (Indonesia plus Papua New Guinea, Timor Leste and Australia)
6. Mekong River Basin (Cambodia, Lao PDR, Thailand and Vietnam)

there is a need to follow up the ASEAN-wide consultations with a sub-regional approach to develop management arrangements. Based on the major outputs from the expert consultation in Phuket in 2006, the Asia-Pacific Fisheries Commission (APFIC), the Regional Plan of Action (RPOA) and other sources have suggested that a regional collaboration by sub-regional management areas (**Box 2**) identified as suitable targets for increased cooperation should be enhanced to promote sub-regional arrangements or agreements. Moreover, given the importance of inland fisheries and trans-boundary implications, the area of the Mekong River Basin is also included as a sub-regional management area.

Directions for Combating Illegal Fishing and Management of Fishing Capacity

The challenges to move towards sustainable fisheries in Southeast Asia should be assessed in the context of the declining of fish stocks/resources, the socio-economic of people engaged in the fisheries sector and the future livelihoods of people involved in marine capture fisheries, and the need to minimize illegal fishing in the region. To address such challenges, various approaches proposed by SEAFDEC could be adopted by the countries in the region.

Increase control by coastal states

Increasing control and implementation of effective surveillance by coastal states are needed to minimize illegal fishing. There is a need to increase security and protection of coastal areas, territorial and offshore (EEZ) waters through the implementation of more effective MCS systems. In Indonesia for example, prevention of illegal fishing is not only carried out by the central government but also by involving the communities through the establishment of "Public Control System" in a number of municipalities throughout the country. In the Southwest Pacific, as a point of reference, increasing control by coastal states has led to a significant reduction in illegal fishing over the last 20 years.

Management of fishing capacity

In Southeast Asia, overcapacity is seen as the most crucial fisheries management problem, threatening the sustainability of the fisheries and pushing fishers towards illegal fishing. To manage fishing capacity, freezing and efficient control of the number of fishing vessels is among the most important actions that governments should enforce. Collectively with other countries in Southeast Asia, there should be a clear picture on how many boats and gears are actually available, in which case a regional “vessel record and inventory” is called for. In the process of managing and reducing fishing capacity it is important to persuade fishing boat owners and private entrepreneurs engaged in the fishing sector to reduce the number of fishing vessels to an appropriate number relative to the existing fisheries resources. Government subsidies to implement a “buyback” policy to reduce the fishing capacity might be an option for the countries to explore.

Improving vessel registration and licensing

The legal framework for fishing vessel registration, fishing licensing and related actions should not be applied separately, as these factors should work in parallel to be used as efficient tools for fisheries management and to combat illegal fishing. In the case of national fisheries management,

clear political view, national policy and clear legal framework are needed to provide the concerned authorities with power to do registration, for licensing without a legal framework and a specific law could be fruitless. Moreover, legal references and institutional framework for fisheries management should be strengthened and harmonized in a regional context. Strengthening of vessel registrations at national and provincial levels together with cooperation between two coastal states on vessel registration data sharing are important steps to avoid double registration. Even though common practices in certain boundary areas allow for double registration/licenses, it is when looking at the national rules on illegal practices and fishing – and landing – that makes such practices become illegal (according to either of the national laws) and the catches are unreported or rather misreported.

Strengthening and improving governance and fisheries management framework for capture fisheries

One of the main factors behind the widespread illegal fishing is the failure in fisheries management at national level as all enforcement needs to have its base in national jurisdiction of fishing nations. Subsequently, there is a clear link between illegal fishing viewed at global level and regional level that can be traced back to the failures at the national

Box 3. Considerations for the improvement of governance and fisheries management framework

Better understanding of the status and trends of tropical fisheries - fishery statistics and information

Knowledge of the status and trends of fisheries, not only in terms of fishery resources but socio-economic aspects as well as a key to sound policy-making and responsible fisheries management. Information on the status and trends of fisheries, obtained through routine data collection (fishery statistics) and non-routine data collection (research), is therefore essential for assessing the validity of fisheries policy and for tracking the performance of fisheries management.

Promotion of co-management and rights-based fisheries

It is understood that any innovative fisheries management methodology will not be effectively implemented while fishing operation is conducted under the current unregulated and “open access” regime. The introduction of rights-based fisheries has therefore been considered as a crucial factor for the effective implementation of an innovative management system. Larger fishing vessels are managed under a rights-based fisheries system, through national licensing schemes. Most of commercial vessels are excluded from fishing into coastal waters. In the development and improvement of the management of small-scale fisheries in the framework of co-management the management requirements could be fully shared among resource users. Keys to success would then lie on clear national policy and supporting legal frameworks for co-management and local rights, including group user rights, the need for designated areas for fishing and aquaculture activities in coastal areas, and empowering fishing communities through strengthening local institutions.

Increasing alternative livelihoods and fishing opportunities

In addressing the management of fishing capacity and particularly the need for reductions, it is unavoidable that certain portions of the fisheries sector have to be less active or most probably leave the sector. A number of countries in Southeast Asia have developed exit programs as part of fishing capacity reduction. One major experience indicates that these programs should not be simply developed to take away certain percentage of fishers from the sector as this would create a new set of problems. Rather than “shifting problems of livelihoods”, a comprehensive livelihood plan for coastal communities should be considered and developed, considering that those who could continue to remain in the sector may require supplementary livelihoods. While those who would exit from the fisheries sector should be secured for their new livelihoods not only in terms of technical but also in entrepreneurial aspects.

Integrating fisheries into habitat conservation and management

Most common approaches to fisheries management in the ASEAN region have not effectively integrated spatial considerations into fisheries management frameworks. Integrating fisheries into habitat conservation and management, under the concept of fisheries *refugia*, is promoted based upon the emerging body of evidence that the existence of natural *refugia* is a basic element explaining the resilience of commercial fish stocks to exploitation. Maintenance of natural *refugia*, or creation of *refugia* in cases where natural *refugia* no longer exist, should be important priorities for the management of fisheries in the ASEAN region, and may act as effective buffers against uncertainty and recruitment failure. Fisheries *refugia* in Southeast Asia are commonly understood as: “spatially and geographically defined, marine or coastal areas in which specific management measures are applied to sustain important species/ fisheries resources during the critical stages of their lifecycle, for their sustainable use”.

Box 4. Strategies to enhance efforts to reduce illegal fishing

Regional cooperation on information sharing and development of regional record on fishing vessels

There is an immediate need for countries in Southeast Asia to cooperate to facilitate the build-up of a regional vessel record for both large and smaller scale vessels. There have to be a clear picture on the numbers and types of vessels that are registered together with the fishing licenses provided to boats, gear and people in each country. This information should be shared among countries in the region, and globally. This is the core to all efforts to combat illegal fishing.

Promoting policy coordination and dialogues with high-level authorities

National and regional projects and programs that are implemented without looking at the impacts and benefits in a broader perspective and beyond the project might not see any of the results sustained after the end of the project, and the likelihood of efficiently impact on national or regional policy development will be limited. To broaden the perspective and to be able respond to regional priorities and influence regional (and national) policy development, the ASEAN-SEAFDEC Strategic Partnership (ASSP) was established and is being further developed by the two organizations. The ASSP does not only aim at promoting regional collaborative programs but also regional policy dialogues with high-level authorities (*i.e.* ASEAN Sectoral Working Group on Fisheries (ASWGF) and 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. In the process of this cooperation, the ASEAN Fisheries Consultative Forum (AFCF) should be used as a venue for the continued development of a Regional Fisheries Management Mechanism.

Strengthening of the implementation of regional collaborative programs to follow-up on international instruments and regional agreements

ASEAN and SEAFDEC should aim to systematically assist their Member Countries in promoting actions to combat illegal fishing and to cope with related identified issues in response to international instruments and requirements. Most of the technical cooperation programs implemented by SEAFDEC and other regional organizations aim to assist the recipient countries to be able to implement their long-term national actions to achieve sustainable fisheries in harmony with international requirements. However, “gaps” do exist between the specific regional projects/initiative and the regular “day to day” work of counterpart organizations and the result of the project might not be absorbed by national follow-up actions in the respective Member Countries. Enhancing the national ownership of regional projects is an important factor for the effective implementation and sustainability of these projects. In addition it is understood that the involvement of policy makers in various stages including the design, implementation and evaluation of the projects could be a key to more long term impacts and ways of influencing policy change through project implementation.

levels as management interventions and sanctions need to be implemented based on provisions of national laws. To combat and minimize illegal fishing, the countries need to consider improvements in various aspects to improve governance and fisheries management framework (**Box 3**).

Strengthening coordination among relevant agencies on MCS and vessel records

In order to combat illegal fishing in the region more effectively, there is a need to strengthen coordination on the development of MCS networks, vessel registration and fishing licensing among relevant line agencies in each country as well as between the countries of the region. On the scope of a regional fishing vessel register or a reference list, suggestions were made at the Experts Meeting on Fishing Vessel Registration in July 2008 in Phuket, Thailand that the SEAFDEC Member Countries should be provided with the opportunities to discuss options of a regional framework for registration or listing of fishing vessels in the Southeast Asian region. Recognizing the general fishing capacity in the region and with IUU vessels operating in neighboring waters, a regional register/list could be a source of information. Considering that fishing operations and fleet structures are different from country to country in the region, there is a need to gradually agree on a set of criteria to be able to create a regional register/list, *e.g.* limit on certain size of boats. The ASEAN and SEAFDEC could systematically assist their Member Countries in this endeavor.

Promote and Develop Regional and Sub-regional Fisheries Management Arrangements

International/regional organizations like SEAFDEC could act as a trigger or external agent for change to support the national efforts of the countries in the region by taking steps for regional collaboration by sub-regional management areas. This could be done by providing regional fora to share experiences among the countries and identify priority issues, as well as provide a platform for discussion on management of fishing capacity among countries and institutions involved. In the process, it is important that policy dialogue to/with higher policy levels should be promoted and that regional supporting programs are developed and enhanced. Another important function could include supporting the development of concepts for sub-regional area management among countries in the respective areas. To facilitate continued processes, collaborative frameworks should be developed with the countries, where such frameworks could also indicate ways to support the development and implementation of national plans of actions (NPOAs) to combat illegal fishing in the concerned countries.

Future Challenges

Regional strategies to facilitate actions in combating illegal fishing and to manage fishing capacity

The urgency to respond and combat illegal fishing is important to recognize, not only because of the declining

fish stocks, but also due to international requirements, such as traceability of fish products and catch documentations. Southeast Asian countries must consider and apply such requirements otherwise they have to face trade restrictions in international markets. To support the implementation of such stringent efforts such as combating illegal fishing, and achieve a reduction of illegal fishing at national levels, certain strategies (**Box 4**) should be approached through regional cooperation. Finally, the fact that the solutions most often proposed to eliminate illegal fishing are associated with increased governance and the rule of laws, efforts should be exerted towards: increased cooperation between regional management authorities in management and control activities; increased capacity to undertake surveillance; enforcement of port state control measures; and other means of reducing the economic incentives to engage in IUU fishing such as increased sanctions and trade measures.

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