Consolidating Regional and Sub-regional Cooperation to Combat

IUU Fishing in Southeast Asia: **Initiative of SEAFDEC-Sida project**

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Illegal, Unreported and Unregulated (IUU) fishing has been a growing serious concern in Southeast Asia considering that such practice continues to threaten the sustainability of the region's fishery resources. The Southeast Asian Fisheries Development Center (SEAFDEC) through its collaborative project with the Swedish International Development Cooperation Agency (Sida) has initiated a process of promoting regional arrangements through the conduct of regional and subregional meetings with the main objective of managing fishing capacity and to some extent the fishing effort, in order to combat IUU fishing in the region. This article reviews and summarizes the relevant activities under the SEAFDEC-Sida Project which mainly aim to promote sustainable fisheries management with the ultimate goal of combating IUU fishing in the Southeast Asian region.

During the past five to ten years, many attempts had been initiated to improve fisheries management with the fundamental objective of reducing IUU and destructive fishing. The seriousness of this concern has been increasingly expressed through discussions and recommendations in various meetings and consultations such as those of the SEAFDEC Council, the ASEAN Fisheries Consultative Forum (AFCF), the SEAFDEC Regional Advisory Committee (RAC) on Fisheries Management in Southeast Asia, the Regional Plan of Action (RPOA) to Combat IUU Fisheries, as well as during the Meetings of the ASEAN Heads of State especially at the launching of the roadmap for ASEAN Economic Community.

Within SEAFDEC, the collaborative SEAFDEC-Sida Project has been organizing consultations and discussions at the regional and sub-regional levels to find ways and means of managing fishing capacity in order to combat IUU fishing in the Southeast Asian region. At the regional level, the Expert Consultation on Managing Fishing Capacity to Combat IUU Fishing in Southeast Asia was organized in September 2010 to follow-up the recommendations raised by the ASEAN and SEAFDEC Member Countries on the need to look beyond the international agreements and conventions relevant to combating IUU fishing. The Consultation established the elements for sustainable fisheries management and for controlling fishing capacity and effort to combat IUU fishing in the region. The

Consultation was a sequel to the regional SEAFDEC-Sida regional meetings on vessel registration, vessel record and inventory held in Phuket, Thailand in 2008 and in Satun, Thailand in 2009, respectively. Moreover, the Consultation also anchored its discussions on the outcomes of the subregional meetings such as the Meetings on the Gulf of Thailand in March 2008 and February 2009, and the Meeting of the Andaman Sea Sub-region in October 2009, which were also convened under the SEAFDEC-Sida Project.

Furthermore, in the review of the elements relevant to combating IUU fishing in the Southeast Asian region, the initiatives of the Asia-Pacific Fisheries Commission (APFIC) on the development of action plans in combating IUU fishing as well as those of the Indonesian-based Regional Plan of Action (RPOA) to Promote Responsible Fishing Practices Including Combating of IUU Fishing in the Region, have been taken into consideration. Various international instruments and conventions such as those by the International Maritime Organization (IMO) were also considered to ensure that the relevant activities in the countries of the region are dovetailed to the need to comply with the various regulations.

Elements Relevant to Combating IUU Fishing in Southeast Asia

From the outcomes of the consultations and discussions convened by SEAFDEC through the SEAFDEC-Sida Project, strong indications point towards the need to direct efforts in consolidating cooperation among the various stakeholders including the relevant sectors and institutions to further develop and improve the Monitoring, Control and Surveillance (MCS) mechanisms in the region. This further requires the need to improve port monitoring through enhanced vessel registration and licensing as well as vessel record and inventory, and improved MCS networking in the Southeast Asian region. Two important international requirements were focused during the review, namely: the legally binding Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing, and EC Regulation No 1005/2008 on Establishing a Community System to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing.

Vessel Registration and Licensing Procedures for Fishing

The aforementioned meetings in 2008 and 2009 came out with a summary of the systems for fishing vessel registration as well as the processes in providing licenses to fish in the countries in the region. The summary however, indicated a diverse picture of vessel registration, licensing systems and institutional responsibilities among the Southeast Asian countries. Classic examples cited were the cases of Malaysia, Philippines and Vietnam. In Malaysia for example, its Department of Fisheries (DOF Malaysia) is the sole authority for the registration of fishing vessels and for issuing the licenses to fish. Meanwhile, in most countries in the region for example in case of the Philippines, there are two or more institutions or agencies involved in the licensing system, one of which is the maritime industry and the other is the fisheries agency but with different mandate(s). In such scenario, the fisheries agency is in charge of the promotion of the control and sustainable fisheries management, while the maritime agency focuses their efforts on safety at sea standards and averting marine pollution from ships (including discarded fishing gear). Furthermore, in other countries the authority to register smaller vessels rests with the local government or local units as in the case of the Philippines, where the responsibility lies with the local

government unit (LGU). In Vietnam, registration of small vessels is the responsibility of the local People's Committee with support from the country's fisheries agency.

Additionally, Malaysia, Philippines, and Vietnam have distinct registration and licensing systems based on the provisions under their respective laws (**Box 1**). Fishing vessels in Malaysia are registered and licensed based on their gross tonnage, the fishing gear utilized and the area or fishing zone being exploited. In Vietnam and the Philippines, fishing vessels are categorized, registered and provided licenses based on specific "features", *i.e.* gross tonnage for the Philippines, and horse power and length overall (LOA) for Vietnam.

Vessel Record and Inventory

During the aforementioned regional meetings, the respective registration (boats/fishing vessels) systems and the processes to provide licenses to fish (vessels, gear and fishers as applicable) were reviewed with the objective of addressing the issue on IUU fishing and management of fishing capacity. The legal framework that supports such systems and to put in effect the stringent regulatory measures were also suggested such as setting of CPUE by the Flag states, determining the MSY of the fishery resources by

Box 1. Registration and licensing systems in Malaysia, Philippines and Vietnam

Malaysia has a good example of a well organized system, where both the functions to register the fishing vessels and the process to issue licenses to fish are handled by the Department of Fisheries (DOF Malaysia). The country's Fisheries Act No. 317 of 1985 on the conservation, management, and development of maritime and estuarine fishing and fisheries in Malaysian waters stipulates that the Deputy General of DOF Malaysia is in charge of the supervision of fisheries matters particularly in the licensing or cancelation of licenses of fishing vessels, granting permits or refusal of foreign fishing vessels to fish in Malaysian waters. The DOF Malaysia is also mandated to undertake the procedures for registration of fishing vessels, including inspection of safety, seaworthiness and other standards that, in applicable parts, corresponding to the standards provided in the IMO Conventions. The duration in acquiring the registration and the license of the fishing boat may take only seven (7) days after the first survey has been made and provided that the applicants comply with all the documentation requirements. In addition, the validity of the fishing boat license is for a period of twelve months only.

In the **Philippines**, the well-defined process for registration and issuance of licenses to fish (for vessels, gear and people) is handled by different agencies, while the roles and responsibilities of the Local Government Units are also defined under RA 8550 (Philippine Fisheries Code 1998) under the provision on utilization, management, development, conservation and protection of the fishery resources. Fishing vessels registration are categorized into commercial fishing vessels (3 GT and above) and municipal fishing boats (3 GT and less). In addition, pursuant to EO No. 305 the Local Government Unit (LGU) has the authority to register and license municipal fishing boats upon appropriate clearances had been issued by the Philippine National Police-Maritime Group (PNP-MG). While licensing of commercial fishing vessels is assigned to the Bureau of Fisheries and Aquatic Resources (BFAR), registration, vessel and ownership certifications are the responsibilities of the country's Maritime Industry Authority (MARINA). RA 8550 also controls or limits the issuance of fishing vessel licenses based on MSY of the fishery resources, prescribes catch quotas, and establishes license fees that reflect resource rents in Philippine waters. All fishing boats are required licenses including carriers, light-boats, sonar boats and tankers. Fishers as well as fishing gears associated to fishing require licensing. It is also important to note that before issuing a license to fish to a vessel, the owner should provide a guarantee (affidavit) that the crew members are treated in accordance with Philippine Labor Laws. Although the Safety of Life at Sea (SOLAS) certificate and the Seafarers Identification and Record Book (SIRB) are required for fishers operating in the high seas, these are not necessary for fishers operating within the country's EEZ.

In **Vietnam**, the Ministry of Agriculture and Rural Development (MARD) is mandated to undertake both vessel registration and the process to issue licenses to fish, but it is still in the process of incorporating the IMO regulations and standards applicable to vessels smaller than those stipulated in the IMO Conventions. The DECREE No. 66/2005/ND-CO of MAY 19, 2009 provides the assurance of safety for people and ships engaged in fishing activities in the waters of Vietnam. Decision No. 494/2001 of JUNE 15, 2001 identified the MARD as the inspecting authority and the Provincial Department of Fisheries (or Department of Agriculture and Rural Development, if the DOF does not exist in the area). The fishing boats that require to be registered are those having 20 HP engines and those without engines but having waterlines of more than 15 meters, which should procure the proper license to fish (for boats and people). Moreover, smaller vessels and traditional/coastal fishers should acquire the necessary license, where the registration and licensing at the local/district level is organized through the People's Committee in the area with support from MARD.



the concerned countries, and stopping the flagged vessels with history of non-compliance to avoid flag hopping. Although the licensing systems vary among the countries depending on the geographical conditions, human resource development level, and political set-up, the meetings noted the fact that the countries in the region are in fact, exercising effective control over fishing vessels flying their flags in order to reduce the incidence of IUU fishing.

In addition, the meetings suggested that the countries can publicize their respective ports to which foreign flagged vessels may be permitted entry but such ports should have adequate capacity to conduct inspection for possible IUU fishing activities. It is therefore through consultations and enhanced collaboration with other countries, that the strengths and weaknesses of their respective registration and licensing systems could be determined, and building on their strengths, the weaknesses could be abated and ultimately solutions to address overcapacity and IUU fishing could be identified.

In managing the fishing capacity, it would be necessary to improve the frameworks for regional cooperation and all efforts to come up with approaches to manage the capacity. Nonetheless, strengthening national capacities should consider the fact that the information available at the moment still does not provide the accurate pictures of the number of vessels and people involved in fishing. In most cases, the information provided could be general underestimations of the real numbers of vessels and to some extent these are even gross underestimations only.

Therefore, in order to get a clearer picture of the size and structure of vessels available in the marine fisheries sector in the region such as large-scale and small-scale/traditional fishing vessels, the need to have a regional "vessel record and inventory" is deemed necessary. Such regional inventory and record could provide important inputs to the process and efforts of strengthening institutional capacity at national and regional levels, developing the frameworks (including MCS networks) for improved fisheries management, and strengthening regional cooperation and coordination in the Southeast Asian region.

Since there is a significant variation in the systems and distribution of institutional responsibilities among countries in the region when it comes to the aspects of fishing vessel registration, issuance of licenses to fish, and conduct of vessel record and inventory, a regional framework on fishing vessel registration, fishing licensing and related legal matters should be established and to work in parallel with the efficient tools for fisheries management with the ultimate goal of combating IUU fishing.

Furthermore, the need to have a "fishing vessel record" should take into consideration the inadequacy of reliable information on the numbers and types of fishing operations and the reported gross underestimation on the numbers and the people involved in fisheries. In moving forward along the efforts to manage fishing capacity and deter IUU fishing, it is necessary to compile reliable information on available fishing capacity in various segments of the fisheries sector. The variations in the quality of information and inadequate institutional capacity of the countries to establish information bases should be assessed as such factors are necessary in prioritizing the areas and countries in the region where institutional capacity building is necessary.

The difficulties in the implementation of a regional Fishing Vessel Record could be attributed to the different systems for fishing vessel registration and issuance of licenses to fish (vessels, gear and fishers) applied by the countries in the region. Furthermore, the fact that many countries divide the responsibilities among authorities/ ministries with the mandate to implement the function of registration and licensing, respectively, aggravates the situation. Since authorities involved have their own defined purposes for implementing their respective tasks, such divided institutional responsibilities pose the problems in coordinating registration and licensing. This concern is further broadened as the tasks are often performed by different institutions under different ministries. Other problems identified include the different systems of data collection at different levels, i.e. national level, provincial level and/or local level and the way the information is analyzed and reported. In many instances, the data and information are not synchronized among the institutions at the local and central authorities, while the coverage and quality of the available information on fishing vessels show great variations. Another related problem is the obvious difficulty in providing the needed information in standardized formats. Thus, for a credible "vessel record and inventory", a standardized format should be established by harmonizing the existing information based on the formats

available in each country. As mentioned earlier, this could also help in identifying the countries and areas/levels where capacity building and institutional strengthening is most urgently needed.

In moving towards developing a vessel record and inventory, it is important to stress the distinct differences in the definitions and institutional responsibilities with regards to the key elements in the registration and licensing processes, such as vessel registration, fishing vessel registration, licenses to fish (boats, gear and people), large-scale fisheries, coastal fisheries (smaller scale). Since the countries, in the region had been encouraged through the regional, subregional and on-site events in 2008, 2009 and 2010, to explore ways and means of channeling relevant information to regional, sub-regional and global level partners/ institutions, such efforts could be enhanced to provide the basis for information sharing in support of the process to establish a regional cooperation on vessel records among the ASEAN and RPOA countries as well as for the development of MCS networks and other recommended actions.

Port Monitoring in Southeast Asia

Port monitoring is essential in the process of Monitoring, Controlling and Surveillance (MCS) of fisheries and fishing activities. In carrying out port monitoring activities, data on fishing activities, including vessels, catch, current fish stocks, trade flows and markets, among others, should be collected to be able to address and monitor the landings of "non-national vessels" or landings across boundaries by neighboring states and other landings across boundaries. Since the need to improve the efforts to combat IUU fishing in the region has been recognized, the region could take advantage of the requirements needed to implement the Agreement of Port State Measures or respond to the EC

regulations for combating of IUU fishing, and other relevant international instruments, regulations and agreements. It should be noted that during various meetings such as those convened by the RPOA as well as the sub-regional meetings of the Gulf of Thailand and the Andaman Sea, the concerned countries suggested that priority should be given to the efforts of monitoring and recording all fish landings at ports and landing sites including efforts to indicate landing information by neighboring countries' vessels. The data collected and documented at the ports should be organized as it could give a picture of the vessels landing their products in specific ports including possible trans-shipments. With such information, fisheries managers would be able to make effective decisions regarding the management of the resources and on limiting the number and type of vessels could be made.

The development of port monitoring system ideally includes all ports and landing sites, covering the whole range of landing facilities at district and provincial levels. The information could be presented at the national level to have a picture of all landing activities in the countries at the sub-regions and for the whole Southeast Asian region. Such effort should be done not only with the view to meeting global demands but also preparing the countries for the increasing demands and requirements from importing countries such as those on traceability, catch documentation, landing documents, fishing vessel registration documents, documents for the license to fish and indications of the areas fished and other aspects.

The most important aspect of port monitoring is the control of the documents that form part of the required information to be checked during port inspections, where the documents are validated and certified by relevant body at the landing place to ensure that the catch has been fished in a legal





manner, and where inspection is based on the system of "chain of custody". Towards this objective, the SEAFDEC Council during its Meeting in April 2010 suggested that member countries should look not only towards exporting fisheries products outside the region but also to improve standards and traceability of exports and imports within and among the countries in the region.

The objectives of building the capacity for port monitoring in the region is basically to make the ports and landing sites as central nodes for combating IUU fishing. In this regard, there is a need to identify the ports and landing sites both public and private in each country, and from such information, the specific roles that such facilities perform, i.e. specific type of fishery, vessels, among others, the information and data available on catch landed in the respective ports or landing sites, should be documented and

Monitoring (M) - includes the collection, measurement and analysis of fishing and related activities including but not limited to catch, species composition, fishing effort, by-catch, discard, areas of operations etc; in which this information is primary data to use for decision making. Control (C) - involves the specific terms and conditions under which resources can be harvested, where such specifications are normally contained in national fisheries legislations and other arrangements that might be nationally, sub-regionally, or regionally agreed upon and that such legislations provide the basis for which fisheries arrangements, via MCS, are implemented.

Surveillance (S) - involves the checking and supervision of fishing and related activities to ensure that national legislations and terms, conditions of access, and management measures are observed.

analyzed. The methods for the collection and distribution of data collected could be enhanced to allow for the sharing of information through the MCS Network or other means. Since there is a broad range of information and documents that would follow the catches landed, information that trace the products upon leaving the ports for processing or direct consumption, should also be compiled. Another important aspect that could improve port monitoring is to build the capacity of port inspectors. Such coordinated efforts are needed to establish the ways of developing effective port monitoring of landings from fishing and carrier vessels, and enhancing the cooperation between neighboring countries in the region in improving the effectiveness of the port monitoring/measurement systems not only to combat IUU fishing but also to support the trading of fish and fishery products within the region as well as to other regions.

Development of MCS Networks in Southeast Asia

In the wake of the entry into force of the legally binding Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, the implementation of a coordinated flag and port State control combined with measures to address illegal, unreported and unregulated (IUU) fishing activities is necessary. In this regard, various government agencies although not directly concerned with fisheries, e.g. environment authorities, national defense, coast guard, customs and immigration, should be involved in various dialogues on matters relevant to determining priorities, allocating resources and sharing of information for the development of the MCS¹ networks. It should be noted that the need to move towards the development of good MCS practices and MCS networks in the region has been expressed during the 2008 RPOA Workshop in Bali, Indonesia.

Monitoring has special role in the MCS systems, as it involves the collection, measurement, and analysis of fisheries and fishing activities including, but not limited to catches (species, composition, by-catch, discards at sea), fishing efforts, areas of operations, volumes and vessels landing, the harbors receiving the catch (including transshipment). Therefore, the information needed to assess the volumes and flow of products, and improve the quality of data collected could be compiled from the data on the port monitoring activities.

Sharing of information generated through the MCS networks are fundamental for the monitoring, control and surveillance of fisheries and fisheries-related activities among the countries in the region. The development of MCS Networks in the region could be one major tool to combat IUU fishing which in the long-term could positively reduce further damage on the fish stocks and marine ecosystems that

otherwise might be inevitable. Torell *et al.* (2010) suggested that in order to combat illegal fishing in the region more effectively, there is a need to strengthen coordination on the development of MCS networks among relevant line agencies in each country as well as between the countries of the region.

Moreover, it has been recognized that in the development of MCS networks in the Southeast Asian region, and sub-regions, the countries' limitations with regards to national systems, legal arrangements and institutions involved result in difficulties to harmonize policies and legislation on fisheries. This is aggravated by their varying levels with regards to fisheries research capacities and data collection systems. Although the standards allowing for effective MCS are slightly different among countries in the region and sub-regions, the development of an institutional matrix on MCS could provide the information on responsible institutions, supporting legislations and relevant conventions/international agreements could help in identifying the specific institutions and their roles in support of the establishment of MCS networks for the Southeast Asian Region and sub-regions. It should be considered that by increasing control and implementation of effective surveillance by the coastal countries of the region, illegal fishing could be minimized while security and protection of coastal areas are assured, especially in the territorial and offshore (EEZ) waters through the implementation of more effective MCS system (Torell et al., 2010). The development of MCS networks for the Southeast Asian region and sub-regions would assist the Member Countries in combating IUU fishing activities and in improving their capacities to implement more efficient monitoring, control and surveillance. Thus, development of better fisheries management mechanisms could be promoted in support of long-term sustainability of fisheries and aquatic resources in the region.

Way Forward

Based on the suggested scope of the regional approach and cooperation, and the measures that are most suitable for the region considering the need to move beyond the international agreements and requirements, SEAFDEC through the SEAFDEC-Sida collaborative project would continue providing capacity building activities to enhance the capabilities of the countries in promoting sustainable fisheries management and eventually in combating IUU fishing. In the process, complying with the EC regulations would be promoted in order to improve fisheries management in the region. However, considering the difficulty encountered by the region's artisanal and small-scale fisheries to comply with the EC regulations, fishing vessels would be classified to fit with the EU classification

and the procedures required in the corresponding EC regulations would be defined in order that the countries' fisheries would be able to comply with the EC regulations. In this regard, the capacity of the countries in all aspects especially in terms of improving fisheries management would be strengthened while information sharing should be further improved especially in the aspects of classifications, procedures among others, relevant to the small-scale fisheries in the region. Moreover, a review of the existing formats used in monitoring fishing activities in the region should be conducted for possible harmonization. Overall, the best way for the countries to adapt to the changes in the international regulations would be to learn from the experiences of other countries, which could be achieved through enhanced sharing of information and improved capacity building. In this regard, regional guidelines could be developed considering the common characteristics of fisheries in the region, which could include a tracking system that could be used to monitor any IUU fishing activities. This calls for the conduct of a case study involving some countries, the results of which could be used as basis for the development of the said regional guidelines for combating IUU fishing in the region.

In the development of such guidelines, reference should be made to other existing guidelines taking into consideration the unique characteristics of fisheries in the Southeast Asian region, and that the respective national laws and other relevant structures of the respective countries should also be considered. Furthermore, the establishment of a regional standard for combating IUU fishing in the region is necessary as such standard could be used as criteria or understanding of whatever requirements and agreements that would emerge in the future, while the established regional guidelines could be used by the countries during the process of negotiations for compliance.

Nonetheless, in establishing the criteria to be included in the guidelines, more dialogues should be convened at the



sub-regional levels. One of the criteria could be on the need to improve standards in the region corresponding to the international standards such as those imposed by the EU which should be complied with when exporting fishery products to the EU countries. Thus, in order to come up with such common standard for the Southeast Asian region, the sub-regional mechanism of the region could be tapped for the review and development of criteria that would go into the guidelines. The development of the guidelines should focus on the ways of combating IUU fishing in marine as well as in inland fisheries, and that the guidelines should not duplicate the efforts specified under the RPOA.

Considering that the countries have different laws and regulations, legal officers of the respective countries should be involved in the development processes, while the concerns from various points of view should be looked into which could include the technical aspects as well. Since the process involves some legal matters, the first step could be the development of draft legislations for the countries to examine and harmonize the draft model legislations for inclusion in the regional guidelines. In this connection, a program should be developed to promote capacity building of all stakeholders including technical persons, scientists, policy makers, legal officers, economists, and the like. Therefore, there is a need to further strengthen coordination and cooperation in order to enhance the capacity of the stakeholders, and mobilize all existing initiatives such as those of the ASEAN Fisheries Consultative Forum (AFCF) and ASEAN-SEAFDEC Fisheries Consultative Group (FCG) in strengthening such regional cooperation. Moreover, participatory approach should be integrated in the policy-making processes by allowing the stakeholders including fishers to take part in drafting the relevant regulations as well as in the formulation of the guidelines. This would make scaling down of any regulations at local level much easier. All efforts should be pooled together and the best practices that work at the local level compiled for dissemination to the countries and where the countries could learn from such lessons and adapt the most appropriate approach as necessary.

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