

# Boosting National Mechanisms to Combat IUU Fishing: Dynamism of the Southeast Asian Fisheries Sector

Abdul Razak Latun, Mazalina Ali, Mohd Tamimi Ali Ahmad, and Masaya Katoh

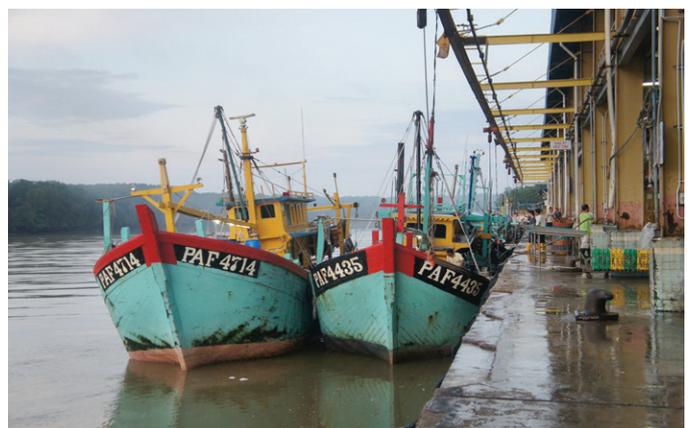
Fishing activities that do not comply with national, regional or international fisheries conservation and management legislations or measures comprise illegal, unregulated and unreported (IUU) fishing (Agnew & Barnes, 2004). IUU fishing is a complex scheme affecting many stakeholders from individual artisanal fishers in national waters to fishing fleets in the Exclusive Economic Zones (EEZs) and the high seas, up to the fish processors and fisheries managers in developed and developing countries. Efforts have been made by international and regional organizations in developing and promoting measures that would combat IUU fishing. The EC Regulation 1005/2008 to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (or the EC IUU Regulation) adopted on the 29 September 2008 and entered into force on 1 January 2010, displays the seriousness of the European Union (EU) to crack down on IUU fishing problems worldwide. Adoption of the EC IUU Regulation by global fisheries markets demonstrates the significance of addressing IUU concerns and evaluating the efficacy of the EC IUU Regulation which was based primarily on the FAO International Plan of Action adopted in 2001 to prevent, deter and eliminate IUU fishing. In spite of all such efforts, the international community has not succeeded in reducing the scope of IUU fishing activities in the world. The issue has even bloated considering that a wider range of species is now being affected by IUU fishing activities in all oceans throughout the world. This critical situation is mainly brought about by IUU fishing operators who continue to find new markets and circumvent current control systems by insufficiently adapting them to the inherent complexity of trade flows. Considering that IUU fishing practices have earned approximately Euro 10.0 billion or USD 15.0 billion a year worldwide, IUU fishing is therefore the second largest dollar earner from trading of fish and fishery products in the world.

particularly on the conservation of fishery resources, good management of landing at fishing ports, and proper handling of fish as raw materials for the processing industry. Many AMSs recognize the relevance of the EC IUU Regulation in Southeast Asia as the Regulation influences the enhancement and/or enforcement of relevant laws and regulations; improved monitoring, control and surveillance; enhanced the roles of governments in fishery resources management; and ultimately, boosted economic returns to fishers. Nevertheless, many countries are still dealing with the negative impacts emanating from the adoption of the EC IUU Regulation due to inadequate awareness of some policy makers in the region on the consequences of IUU fishing as it is affecting the sustainable development of the region's fisheries. During the Regional Core Experts Meeting organized by SEAFDEC in October 2013, a questionnaire survey was carried out by the SEAFDEC Marine Fishery Resources Development and Management Department (MFRDMD) to compile the positive and negative impacts of adopting the EC IUU Regulation in Southeast Asia (SEAFDEC/MFRDMD, 2013). The inputs provided by the countries to the questionnaire survey are summarized in this article.

## Fishing Vessel Registration and Fishing Gear Licensing

Fishing vessel registration and fishing gear licensing are among the pre-requirements for the AMSs to be able to export fish and fishery products to the EU market. Most AMSs have indicated that the promotion of the EC IUU Regulation has created positive impacts on the respective countries' advocacy on fishing vessels registration and fishing gear licensing, as the numbers of fishing vessels registered and fishing gears licensed had tremendously increased, demonstrating

The ASEAN Member States (AMSs) comprise among the largest exporters of fish and fishery products to the European Union (EU). Thus, the obligatory implementation of EC Regulation 1005/2008 or EC IUU Regulation must have greatly affected, one way or another the trading of fish and fishery products from the AMSs. Nonetheless, the AMSs continue to implement measures to combat IUU fishing and mitigate the impacts of the EC IUU Regulation by enhancing their corresponding national mechanisms. Collectively, the AMSs have been developing and implementing measures through vessels registration, gear licensing, and use of log books and log sheets, among others. In addition, the AMSs continue to enhance the awareness and cooperation of fishers,





the objective of AMSs to target the lucrative fish market in the EU. However, some fishers and vessel operators also indicated that compliance with the EC IUU Regulation made them incur additional costs for the registration and licensing processes. Notwithstanding the consequences, the AMSs have cooperated with the Southeast Asian Fisheries Development Center (SEAFDEC) in the development of the Regional Fishing Vessels Record (RFVR) for vessels 24 meters in length and over (Kawamura and Siriraksophon, 2014). With funding support from the Japanese Trust Fund, the RFVR is envisioned as a tool to combat IUU fishing in Southeast Asian waters (Pongsri *et al.*, 2014). Later, the RFVR would be extended to include information on vessels below 24 meters

in length (SEAFDEC, 2015a) considering that this group of vessels which comprises more than 80% of the region's fishing vessels could also be involved, one way or another in IUU fishing (Matsumoto *et al.*, 2012).

In addition, the RFVR Database had been established through a series of ASEAN-SEAFDEC fora convened mainly to enhance the understanding of various stakeholders on the rationale of compiling and sharing information in the RFVR Database as this could provide the ways and means of managing fishing capacity and combating IUU fishing in the region. The RFVR Database could also provide inputs to the Global Record of Fishing Vessels, Refrigerated and Transport Vessels, and Supply Vessels being developed by FAO. This Global Record is meant to serve as catalyst in improving global transparency and traceability in the fisheries sector, and ultimately in combating IUU fishing worldwide.

### Use of Log Books and Log Sheets

The promotion of the EC IUU Regulation in the Southeast Asian region has led to improved collection and compilation of fisheries data by the AMSs. More specifically, the efforts of AMSs in advocating the use of logbooks and log sheets had paved the way not only for improving fisheries data collection but also on the traceability of the fish and fishery products from the Southeast Asian countries. In the case of Singapore, however, the EC IUU Regulation has no impact in the country's fisheries data collection *per se*, as its fishers have been using logbooks and log sheets for a long time. Nevertheless, most AMSs had been confronted with negative impacts brought about by the promotion of the EC IUU Regulation that include difficulties in filling-up the log books and log sheets, generally considered as additional workload on the part of fishing masters or boat skippers. Most skippers had allegedly indicated that such additional tasks had caused delays in catching, and in landing and transporting the fish catch. As a result, increased administrative costs had been incurred by the governments as well as fishing managers, especially in terms of manpower, facilities and supplies.

### Awareness/Cooperation of Fishers

The EC IUU Regulation has increased the awareness of fishers in most AMSs on the negative impacts of IUU fishing. By complying with the EC IUU Regulation, the skills and knowledge of fishers in the AMSs had been enhanced, especially in food safety as well as in reducing conflicts between commercial and traditional fishers that result in the high margin of marketability of the region's fish and fishery products worldwide. Although Singapore had indicated that the EC IUU Regulation has no impact on the country's fishers as their fish catch is not being exported to the EU, the other AMSs cited that one of the negative impacts of the implementation of the EC IUU Regulation is the additional



The RFVR database

**Box 1. Impacts on the health of the fishery resources from compliance with the EC IUU Regulation by AMSs**

Cambodia	The fishery resources had been enhanced as more fishers are undertaking fishing ground conservation and increasing their awareness on the effects of IUU fishing on the fishery resources and fishery habitats.
Indonesia	Fishing activities and the fishery resources have been managed in an orderly manner.
Lao PDR	Conservation areas in the country's inland waters have been created for the sustainability of inland fishery resources.
Malaysia	Efforts in enhancing the marine ecosystem and promoting resources conservation had been intensified, considering that by reducing or eliminating IUU fishing, the fishery resources for small-scale fisheries could be enhanced.
Myanmar	Efforts in preserving the marine ecosystem had been intensified by promoting resources conservation, considering that by reducing or eliminating IUU fishing, the fishery resources for small-scale fisheries could be enhanced.
Philippines	Degradation of habitats and resources had been abated and more productive marine resources have been developed when IUU fishing had been considerably reduced, while management of stocks of commercial migratory fishes has been improved contributing to the sustainability of the resources as well as that of fishing as a livelihood.
Thailand	Enhanced conservation measures for the marine ecosystem and resources had been developed, resulting in sustained abundance of the fishery resources.
Viet Nam	Efforts in preserving the marine ecosystem had been intensified by promoting resources conservation, considering that by reducing or eliminating IUU fishing, the fishery resources for small-scale fisheries could be enhanced.

**Box 2. Impacts of the EC IUU Regulation on management of landings at fishing ports/landing sites by AMSs**

Country	Positive Impacts	Negative Impacts
Cambodia	Actions to promote overall knowledge on hygiene, safe products and good fish handling and transfer practices had been undertaken even beyond fish landing sites.	Additional budget is required to continue regular inspections at landing sites.
Indonesia	Management at certain fish landing sites or ports had been strengthened especially in some ports designated as local competent authority (LCA) to issue Catch Certificates, while data collection on fishing and trading had been improved.	Issuing catch certificates by LCA is an additional workload for fish port managers.
Lao PDR	Good fish handling and hygiene practices had been promoted and enhanced.	Additional costs needed to improve relevant infrastructures and enhance management of landings at fishing ports.
Malaysia	Good fish handling and hygiene practices had been promoted and enhanced.	Additional manpower and budget needed for enforcement, inspection, recording during landings as well as improving infrastructures.
Myanmar	Good fish handling and hygiene practices had been promoted and enhanced.	Additional manpower and budget needed for enforcement, inspection, recording during landings as well as for infrastructures improvement.
Philippines	Management of catch at landing sites had improved because of catch documentation requirements and easy access in monitoring the landings, while handling and food safety measures had been developed and the skills of stakeholders on food safety enhanced.	
Thailand	Management of landings at fishing ports had been promoted and enhanced while good fish handling and hygiene practices advocated, as well as collaboration between the government and private sector that supports the port state measures had been established.	Additional manpower and budget necessary for enforcement, inspection, recording during landings as well as improving infrastructures.
Viet Nam	Good fish handling and hygiene practices had been promoted and enhanced.	Additional manpower and budget needed for enforcement, inspection, recording during landings as well as improving relevant infrastructures.

budget needed for regular surveillance of their respective countries' fishing operations.

### Fishery Resources

Through the EC IUU Regulation, most AMSs have recognized that combating IUU fishing had positive impacts on the health

of the fishery resources (**Box 1**). However, some AMSs were also concerned with the additional costs incurred in complying with the said Regulation. In particular, Cambodia had experienced difficulties in promoting the EC IUU Regulation as compliance with the Regulation is costly and the country has insufficient funds for promoting the Regulation nationwide.



### Management of Landings at Fishing Ports or Landing Sites

After the EC IUU Regulation had been put into force, most AMSs cited that fish handling practices at sea and at ports had been improved. However, the countries also expressed the concern that higher inspection costs could be incurred

while checking the landings at fishing ports or in landing sites (**Box 2**).

### Fish Raw Materials and Management of Processing Plants for Catch Certification

Many AMSs indicated that the EC IUU Regulation had created positive impacts on handling and processing of fish for exports. Nonetheless, many countries also feared that increased costs could be incurred in documentation works, enforcements, and other relevant activities.

### Law Enforcement

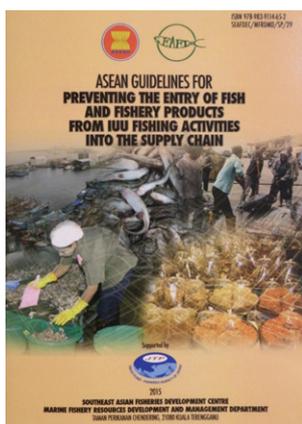
The AMSs have their respective fishery laws and regulations in place, and strict enforcement of such laws and regulations could eventually reduce IUU fishing (**Box 3**), although many countries also expressed the concern on additional manpower and budget that would be needed to strictly enforce such laws. The persistent occurrence of IUU fishing activities that extend

**Box 3. Impacts of the EC IUU Regulation on enforcement of relevant laws and regulations in the AMSs**

Country	Positive Impacts	Negative Impacts
Cambodia	Regular control and inspection activities had been carried out by Fisheries Administration with the cooperation of local authorities and other competent agencies.	High cost would be incurred in the inspection of all fishing activities in accordance with the national fisheries law.
Indonesia	Law enforcement especially for IUU fishing practices had been strengthened while amendment to the country's existing laws and regulations had been considered to make these attune with the EC IUU Regulation and relevant RFMOs resolutions (e.g. licensing regulations, observers onboard program, installation of VMS in fishing vessels).	
Lao PDR	Amendment of existing laws and regulations has been planned with Government policies to reduce IUU fishing in small-scale inland fisheries.	Difficulties in designating additional manpower to implement the policies as this would entail additional costs.
Malaysia	Amendment to existing laws and regulations had been undertaken to be in tune with the EC IUU Regulation (e.g. licensing regulations, quality control of fish for export to the EU), and to reduce IUU fishing in small-scale fisheries.	Difficulties in designating additional manpower to implement the laws and regulations as this would require additional costs.
Myanmar	Directives and notifications had been issued leading to effective monitoring, control and surveillance system, while cooperation among stakeholders and fishers had been enhanced.	Difficulties in designating additional manpower to implement the regulations due to additional costs required.
Philippines	Amendment of relevant policies had been effected incorporating catch documentation requirements and sanctions had been increased to obtain more deterrent effects. A holistic approach to law enforcement has been promoted by integrating flag state, port state and coastal state responsibilities. As a result, IUU fishing is significantly lessened due to the need for exporters to source fish only from licensed fishing vessels.	
Singapore	Work towards reducing IUU fishing in small-scale fisheries had been sustained.	Additional administrative procedures needed for enforcement officers.
Thailand	Existing laws and regulations had been amended with the objective of reducing IUU fishing in the country.	Difficulties in designating additional manpower as additional funds needed.
Viet Nam	Existing laws and regulations had been amended with the ultimate goal of decreasing IUU fishing in the country's small-scale fisheries.	Difficulties in designating additional manpower as additional funds needed.

to illegal trading of IUU fishes in the Southeast Asian region is mainly caused by weak enforcement of legislations and incompatible legal frameworks for combating IUU fishing (Kawamura and Siriraksophon, 2014).

For such reason, the AMSs cooperated with SEAFDEC for the development of the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain (SEAFDEC/MFRDMD, 2014a; Kawamura and Siriraksophon, 2014). Funded by the Japanese Trust Fund, the development of such ASEAN Guidelines aimed to establish the foundation that could serve as basis in formulating relevant policies at national level as well as in developing clear direction and understanding of



the need to prevent the entry of IUU fish and fishery products into the supply chain. Although the development of this ASEAN Guidelines took into consideration relevant international instruments, e.g. IPOA IUU Fishing, EC IUU Regulation, implementation would need additional budget for capacity building of concerned stakeholders in the respective AMSs.

### Monitoring, Control and Surveillance (MCS)

Most countries had experienced the positive impacts from complying with the EC IUU Regulation not only in enhancing law enforcement but also in strengthening the cooperation

among enforcement agencies (**Box 4**). However, the countries were also concerned on the increased costs incurred for putting up additional infrastructures and more manpower for the effective enforcement of the laws and regulations.

Recognizing that MCS is also a vital and crucial component of fisheries management and tool to combat IUU fishing in the region (Yleaña and Velasco, 2012), the AMSs had been actively participating in relevant fora convened by SEAFDEC with collaborating partners. In the process, the AMSs have been considering to establish a regional MCS network not only as means of strengthening MCS capabilities and satisfying the obligations arising from international agreements and instruments but also in their respective national responsibilities in performing MCS functions. Nonetheless, the varying legal mandates, systems of data collection, and research levels in the AMSs makes it difficult to monitor the status of the fishery resources at bilateral or sub-regional or regional level, although the AMSs also recognized that strengthening cooperation could enhance the means of exchanging fisheries data for MCS purposes.

### Enhancing Governance

Governments have been playing the big role in supporting fishers and fishery workers in terms of better working conditions and living standards, as well as on policy concerns. However, some countries expressed the concern on insufficient budgetary allocations to be able to comply with the EC IUU Regulation (**Box 5**). The AMSs also recognized that intra-regional and international trade of fish and fishery products is beyond trading with the EU, thus, the countries agreed to develop measures that could provide them with guidance in

**Box 4. Impacts of complying with the EC IUU Regulation on the promotion of MCS by AMSs**

Country	Positive Impacts	Negative Impacts
Cambodia	Cooperation among competent agencies had been enhanced.	High cost for inspection of fishing activities.
Indonesia	The sole responsibility of undertaking MCS assigned to only one Office.	
Lao PDR	Law enforcement and cooperation among enforcement agencies had been improved.	Additional costs for more infrastructures and increased manpower for MCS.
Malaysia	Law enforcement and cooperation among enforcement agencies had been improved.	More infrastructures needed to enhance monitoring and control of fishing activities.
Myanmar	Law enforcement and cooperation among enforcement agencies had been improved.	More infrastructures needed to enhance monitoring and control of fishing activities.
Philippines	Installation of VMS for high-seas fishing generally accepted but not for domestic fishing, patrol vessels had been acquired while information and data gathering has been improved, and compliance with fishery regulations had increased.	MCS entails increased operational costs on the part of the government.
Singapore	Cooperation among enforcement agencies has been enhanced.	More infrastructures, assets, manpower and costs needed.
Thailand	Law enforcement and cooperation among the government and private sectors has been improved.	More infrastructures, assets, manpower and costs needed.
Viet Nam	Law enforcement and cooperation among the government and private sectors has been improved.	More infrastructures, assets, manpower and costs needed.

Box 5. Impacts of the EC IUU Regulation on improved fisheries management by governments in AMSs

Country	Positive Impacts	Negative Impacts
Cambodia	Working conditions, lives of fishers and facilities improved, while timely availability of fish increased. Stakeholders' support to fishery policies based on national Fishery Law and regulations had been enhanced.	More infrastructures and funds needed to sustain support in fishery activities.
Indonesia	Commitment to implement the Catch Certification and EC IUU Regulation assured through the issuance on Ministerial Regulation Number: PER.13/MEN/2012 on Indonesia Catch Certification.	
Lao PDR	Working conditions in capture, processing and other co-management aspects had improved.	More infrastructures, manpower and funds needed to implement the EC IUU Regulation.
Malaysia	Working conditions in capture fisheries as well as in processing and other areas in the supply chain had improved. Policy support from government agencies enhanced, from food safety to trading systems. Better living standards could be seen as spill-over effect.	More infrastructures, manpower and funds needed to comply with the EC IUU Regulation.
Myanmar	Working conditions in capture fisheries and living standards of fishers as well as in processing and other areas in the supply chain had improved. Policy support from government agencies enhanced, from food safety to trading systems.	More infrastructures, assets, manpower and costs are needed to be able to adopt the EC IUU Regulation.
Philippines	Relevant national policies had been revised while plans were made to ratify fisheries-related international agreements such as the 2009 Port State Measures and Compliance Agreement. Budgetary allocations for fisheries management had been increased resulting in strengthened capabilities of municipal governments in fisheries management. Cooperation with other States to combat IUU fishing at bilateral or regional levels strengthened, information dissemination to fishery stakeholders through workshops and consultations on the impacts of IUU fishing intensified, while improved production from capture fisheries increased the supply of raw materials for the processing sector.	
Singapore		More infrastructures, manpower and funds are needed.
Thailand	Working conditions in capture fisheries and living standards of fishers as well as in processing and other areas in the supply chain had improved. Policy support from government agencies enhanced, especially on fisheries management and sustainable development of the resources.	More infrastructures, manpower and costs are needed to be able to comply with the EC IUU Regulation.
Viet Nam	Working conditions in capture fisheries and living standards of fishers as well as in processing and other areas in the supply chain had improved. Policy support from government agencies enhanced, from food safety to trading systems.	More infrastructures manpower and costs needed to enable the country to comply with the EC IUU Regulation nationwide.

improving the traceability system of capture fisheries and eventually, in combating IUU fishing in the region (Kawamura and Siriraksophon, 2014). With assistance from SEAFDEC and funding support provided through the Japanese Trust Fund, the countries initiated the development of the ASEAN Catch Documentation Scheme (ACDS) as a management tool for combating IUU fishing and enhancing inter-regional and international trade of fish and fishery products from the region.

### Economic Aspects

During the past five years (2009-2013), production from capture fisheries of the AMSs had considerably increased

not only in terms of quantity but also in terms of value, as shown in **Table 1** (SEAFDEC, 2015). As a consequence, most of these countries had also improved their export opportunities resulting in enhanced economies. However, the countries expressed the concern on low supply of raw materials for export from complying fishing vessels (**Box 6**), notwithstanding the number of powered fishing boats in the region which could be more than 500,000 (SEAFDEC, 2014). Nevertheless, through the efforts of SEAFDEC and with funding support from the Japanese Trust Fund, the AMSs had been enhancing the capacity of their respective fishers in improving post-harvest handling of fish onboard fishing vessels to ensure that discards onboard are brought

**Table 1.** Fishery production of Southeast Asia (2009-2013): quantity (QTY) in million metric tons; value (VAL) in billion US Dollars

	2009		2010		2011		2012		2013	
	QTY	VAL								
Marine Capture	14.2	10.5	14.9	15.9	15.1	21.2	15.6	20.1	16.3	20.4
Inland Capture	2.4	2.6	2.4	2.5	2.7	2.9	2.8	3.2	2.9	3.3
Aquaculture	12.3	16.1	14.2	13.4	15.8	19.7	21.2	21.7	20.9	18.2
<b>TOTAL</b>	<b>28.9</b>	<b>29.2</b>	<b>31.5</b>	<b>31.8</b>	<b>33.6</b>	<b>43.8</b>	<b>39.6</b>	<b>45.0</b>	<b>40.1</b>	<b>41.9</b>

Source: SEAFDEC (2015)

**Box 6. Impacts of complying with the EC IUU Regulation on the economic aspects of fisheries in AMSs**

Country	Positive Impacts	Negative Impacts
Cambodia	Improved infrastructure led to enhanced fishery opportunities, safety and good hygiene of fish and fishery products.	Minimal activities carried out, especially on fishery enhancement and in promoting all fishery operations.
Indonesia	Volume of seafood export to the EU market could be increased.	In Catch Certificate verification process, fish containers are kept on hold and released only after getting clarifications, making the situation and process costly and creating burden to exporters.
Lao PDR	Export opportunities of fish and fishery products improved creating income generating options for households.	
Malaysia	Export opportunities of fish and fishery products improved.	Low supply of raw materials for export from complying fishing vessels, e.g. anchovy, prawns/shrimps, squid while tariff barrier still exists due to absence of free trade agreement (FTA).
Myanmar	Export opportunities of fish and fishery products improved.	Low supply of raw materials for export from complying fishing vessels (anchovy, prawns/shrimps, squid).
Philippines	Product quality and safety simultaneous with traceability had improved thus, continued market access of fish and fishery products to EU member countries is ensured.	Loss of market access for those who cannot comply with EC IUU Regulation, so that fishing operators spend additional amount of money to comply with the EC IUU Regulation.
Singapore	Improved export opportunities of fish and fishery products.	
Thailand	Improved export opportunities of fish and fishery products, while quality of products is guaranteed due to high competition.	Low supply of raw materials for export from the complying fishing vessels.
Viet Nam	Improved export opportunities of fish and fishery products.	Low supply of raw materials for export from the complying fishing vessels, e.g. anchovy, prawns/shrimps, squid, octopus. Tariff barrier still exists due to absence of FTA.

to the barest minimum, therefore, optimizing the quantity and quality of catch.

## Conclusion and Recommendations

Many Southeast Asian countries are exerting efforts to increase the export competitiveness of their fish and fishery products to the EU market by complying with the EC IUU Regulation and other international instruments. However, there are still provisions in the EC IUU Regulation that could not be easily promoted such as allocating additional budget to develop and enhance infrastructures, especially those that are needed in monitoring national fishing activities. In addition, funds are needed to undertake capacity building for effective and efficient enforcement of laws and regulations, and for improved collection of data and information on fisheries.

Nevertheless, such concerns should be addressed by the governments to improve the competitiveness of their fish and fishery products not only for export to EU but also for domestic consumption and trade. Moreover, for the well-being of workers in fisheries, it is also necessary that governments should work for improving the lives and working conditions of fishers and fish workers, ensuring them of adequate protection in accordance with the respective countries' labor laws.

In a recent development, the EU has lifted the "yellow card" sanctioned to the Philippine Government almost a year ago (Philippine Star, 22 April 2015). The "yellow card" is an official warning for governments' failure to combat IUU fishing in their respective waters. With the "yellow card" the concerned countries would be given six months to improve their mechanisms to combat IUU fishing as this often led

to over-exploitation of fishing grounds and depletion of the marine resources. In the case of the Philippines, its Fisheries Code of 1998 had been amended and strengthened, and strictly implemented. As a result of the strict enforcement of laws and regulations, the “yellow card” issued to the Philippines by the EU had been lifted meaning that the Philippines could export fish and fishery products to the EU market.

In a similar development, the EU has issued an official warning that could slap a ban on Thailand if the country fails to take actions in combating IUU fishing within six months (The Nation, 23 April 2015). If Thailand could not undertake the necessary measures, this ban could have huge impact on the country’s fishery industry since its fishery products could no longer be exported to the EU which is one of the major markets of the country’s products, especially canned tuna. Thailand is now taking emergency steps to address this concern, such as amendments of its Fishery Law and regulations including addressing the issues related to labor, *i.e.* labor protection of fishers and fish workers in the country’s fishing industry.

Furthermore, it is also necessary that bilateral, sub-regional and regional arrangements, whether formal or informal, should be strengthened in order that data and information are effectively exchanged, more particularly those on IUU fishing in Southeast Asian waters. Strengthening regional and sub-regional efforts to combat IUU fishing in the region is a priority action for the ASEAN Economic Community unification (Poernomo *et al.*, 2011). Through such arrangements, lessons could be learned and experiences could be shared among the AMSs with regards to the development of mechanisms and measures to combat IUU fishing, as this could prevent the issuance of sanctions from the EU and result in sustained trading of fish and fishery products in the world market. The AMSs should also continue and sustain the development of their respective National Plans of Action to Prevent, Deter and Eliminate IUU Fishing (NPOAs-IUU) in accordance with the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU).

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## About the Authors

**Mr. Abdul Razak Latun** is the Head of Fishery Oceanography and Resource Enhancement Section, SEAFDEC Marine Fishery Resources Development and Management Department (SEAFDEC/MFRDMD), Taman Perikanan Chendering, Kuala Terengganu, Malaysia.

**Mazalina Ali** is Head of Fishery Resources Management Advisory Section, SEAFDEC/MFRDMD.

**Mohd Tamimi Ali Ahmad** was formerly the Head of Fishery Oceanography Unit of SEAFDEC/MFRDMD. Recently, he moved to Fisheries Research Institute of Rantau Abang, Terengganu to serve as Head of Marine Mammals Section.

**Masaya Katoh** was Deputy Chief of SEAFDEC/MFRDMD from April 2010 until March 2015.