

Table 68. Issues/constraints and actions/strategies in the implementation of the RPOA-Capacity (*Cont'd*)

Plan of action	Issues/Constraints	Actions/Strategies
2.3 Regional Considerations and Cooperation	<ul style="list-style-type: none"> Limited resources Insufficient collaboration among the AMSs 	<ul style="list-style-type: none"> Cooperation among the AMSs to combat IUU fishing in the region Updating the RFVR Database Exchange of information and experience in fisheries management
Section III: International Considerations and Fishing in High Seas or RFMO Competent Areas		
	<ul style="list-style-type: none"> Inability to access fishing in the high seas Closed WCPFC high seas areas should be for fishing Lack of expertise in tuna fishing in the IOTC competent area Insufficient information on fishing grounds and resources Lack of information on regulations 	<ul style="list-style-type: none"> Cooperation among the AMSs and relevant agencies to protect the competent areas Adherence to the IOTC Resolution Self-imposed fishing access to reduce the catch of juvenile tunas (BET) Analysis of historical fishing effort data Data collection from logbooks, onboard observers, ERS, etc. Exchange of updated information on fisheries and aquatic resources, regulations, and others
Section IV: Required Urgent Measures for Regional Fisheries Management		
	<ul style="list-style-type: none"> Limited resources Insufficient measures to manage transboundary species Lack of timely and accurate information 	<ul style="list-style-type: none"> Sharing of experiences and lessons learned on fisheries management among the AMSs Participation in the discussion at the sub-regional/regional level regarding the management of transboundary species Humanist handling of cases at sea
Section V: Mechanisms to Promote Implementation		
	<ul style="list-style-type: none"> Limited of resources Lack of technical support for the information-sharing program, training program, and experts' consultation program on the fishing capacity to support the NPOA-capacity Lack of systematic data collection and analysis Prioritizing national interests and commitments 	<ul style="list-style-type: none"> Enforcement of fishery laws in the respective EEZs and high seas Engagement with stakeholders through consultation programs Conduct of training and capacity building activities to improve fishing capacity management Provision of technical support for systematic data collection and analysis Ensure the interests of the countries in the region Development of a mechanism for sharing of information and experience among countries for regional compliance

In addition, during the 2020 Regional Technical Consultation, most AMS requested SEAFDEC to provide technical assistance for the preparation of NPOA-Capacity and capacity building especially fisheries management and fisheries survey. Specifically, Brunei Darussalam requested technical assistance from SEAFDEC and Malaysia for the development of their NPOA-Capacity, while Cambodia requires capacity building and training, particularly on fisheries management. In its response, Malaysia indicated that there has been certain inadequacies of the number of younger experts, particularly in fishery taxonomy and stock assessment, to conduct resource surveys. Thus, the collaboration with SEAFDEC on the aforementioned concerns was requested. Malaysia also requested for capacity building through training on taxonomy, especially for deep-sea resources; stock assessment; and determination of fishing capacity methodologies. Meanwhile, Myanmar also sought technical assistance for its plan to conduct the deep-sea survey and expressed the desire to collaborate with regional and international organizations. The Philippines has already completed zero drafts for its NPOA-Capacity but requested technical assistance from SEAFDEC for the finalization of the said document, and also sought technical assistance from SEAFDEC for its acoustic survey. Thailand specifically sought technical assistance from FAO on the application of FMP to manage fishing capacity.

6.1.1.2 Fishing Vessels Registration and Fishing Licensing

Recognizing the severity of degradation of the fishery resources in the Southeast Asian region brought about by uncontrolled practice of IUU fishing, the AMSs have been promoting sustainable fisheries management at the national level in accordance with a provision in the Regional Guidelines for Responsible Fisheries in Southeast Asia: Responsible Fisheries Management, viz: “States should review the issues of excess fishing capacity at the national level and recommend where appropriate, measures to improve registration of fishing vessels, introduction of rights-based fisheries and reduction in the number of fishing boats and level of fishing effort using government incentives” (SEAFDEC, 2003). Updates on fishing vessels registration and licensing undertaken by the AMSs at national levels as of 2021, are shown in **Box 18**.

Box 18. Status of implementation of vessels registration and licensing undertaken by the AMSs

Brunei Darussalam - All fishing vessels with in-board engines in Brunei Darussalam are registered with the Maritime and Port Authority of Brunei Darussalam. Fishing licensing in Brunei Darussalam is under Section 13 of the country's Fisheries Order 2009, which provides that all fishing gears must be licensed to be able to carry out fishing activities. Fishing license is separated into three types, namely: license for individual fishing, small-scale fishing license, and commercial fishing license. Licenses for individual fishing and small-scale fishing are authorized by the country's Department of Fisheries (DOF) while commercial fishing license is authorized by its Ministry of Industry and Primary Resources. Fishing license could be renewed annually and fishing vessel should be inspected for issuance of certificate of "sea-worthiness" by the Maritime and Port Authority of Brunei Darussalam before the application for renewal of fishing gear license is filed for approval by the Department of Fisheries.

Cambodia - Registration of all vessels in Cambodia is carried out by the Ministry of Public Works and Transport (MPWT), under which the Merchant Marine Department and the Provincial Department of Public Works and Transport are responsible for fishing vessel registrations. New fishing vessels are required to be registered, after which the vessel's owner will receive the vessel's card. The official number or vessel registration number is indicated in the vessel's card consisting of two alphabets and four-digit number that refers to management areas/coastal provincial areas. However, the MPWT does not have the capacity sufficient enough to register the large number of relatively small fishing vessels in Cambodia. As a result, only a small number of vessels are registered (or licensed). Moreover, issuance of fishing license in Cambodia is under the responsibility of the country's Fisheries Administration (FiA) and Provincial Department of Agriculture Forestry and Fisheries (PDAFF). Fishing vessels with engine power bigger than 90 HP are issued fishing license by the FiA, while fishing vessels with engine power smaller than 90 HP, receive their fishing licenses from PDAFF. The fishing licenses issued are valid for one year. Fishing vessel owners who want to do fishing should apply for fishing licenses to the responsible authorities as mentioned above. There are two types of fishing licenses, namely: fishing gear license and fishing boat license. One of the challenges encountered is related to the current regulations where fishing vessels are required to have prior registration with the MPWT.

Indonesia - Fishing vessels registration in Indonesia is being implemented by two ministries: the Ministry of Transportation and the Ministry of Marine Affairs and Fisheries. The requirements for registration include: 1) certificate of measurement of vessel in tonnage, 2) vessel registration, 3) nationality certificate, 4) fishing vessel registration such as fishing vessel book, fishing vessel marking, and 5) license (fishing vessel license). The authorities issuing the fishing license are the district/municipal government, provincial government and central government for fishing business license, fishing license and fish carrier license to persons and companies that operate fishing vessels. The licenses for vessels below 5 GT and between 5 and 10 GT are issued by the district; for 11 to 30 GT vessels by the province; and vessels over 30 GT by the central government. However, the country is confronted with several problems on fishing licensing, the most common of which include double flagging where a fishing vessel could have license from Indonesian authorities as well as license from the country of origin. In an effort to mitigate the problem, foreign vessels are required to have complete certificates from responsible agencies in its country of origin, while ex-IUU fishing boats are no longer issued fishing licenses.

Malaysia - The country's Fisheries Licensing Policy is one of the main policy documents used in governing fisheries management in Malaysia, as it also supports the enforcement of the Fisheries Act 1985 and its regulations. The Fisheries Licensing Policy of Malaysia are used to: 1) manage the fishery resources sustainably by controlling the number of fishing vessels, fishing gears as well as fishing effort; 2) facilitate monitoring of fishing activities within Malaysian waters; 3) assist in promoting the enforcement activities, especially in identifying encroachments of local and foreign fishing vessels; 4) combat IUU fishing; and 5) minimize conflicts between traditional and commercial fishers. Issues confronting the country's vessel registration and licensing systems include the limited capacity in carrying out periodic monitoring activities by ground staff. This has constrained the fishers to use technology in license management, especially during the license renewal.

Myanmar - As a government policy, Myanmar has two (2) types of vessel registration, i.e for inshore and offshore vessels. National offshore fishing vessels, carrier vessels and foreign fishing vessels have to register with the Department of Marine Administration (DMA) and all types of inshore fishing vessels have to register with the Township Administrative Department. The Department of Fisheries (DOF) issues the licenses for those inshore and offshore fishing vessels. Inshore fishing vessel license is issued by the township fishery officer, while offshore/inshore fishing and carrier vessel licenses are issued by the head of state/region offices and the Director General of DOF based on the license application.

Philippines - Prior to vessel construction or importation, the Philippines requires a *Construction Clearance or Importation Clearance*, whichever is applicable. This is prescribed under Section 33 of implementing rules of Republic Act 8550, as amended. A fishing vessel is cannot be registered without Clearance from the Bureau of Fisheries and Aquatic Resources (BFAR). Philippine authorities conduct background check on fishing vessels to be imported prior to issuance of *Importation Clearance*. This includes checking whether the vessel is or is not recorded in the existing IUU list of various RFMOs. Only fishing vessel registered in the Philippines can be issued with a fishing license, provided all other regulatory requirements are complied with and license fees are fully paid. Issuance of a fishing license is covered under Fisheries Administrative Order (FAO) No. 198-1, series of 2018. Registration of fishing vessels falls under the jurisdiction of the following entities: Municipal fishing vessels (3.0 gross tons and above) must be registered with the Local Government Units, while commercial fishing vessels (> 3.0 gross tons) must be registered with the Maritime Industry Authority (MARINA), which is under the Department of Transportation and Communication (DOTC). In accordance with Section 13 of FAO 198-1, series of 2018, commercial fishing vessels must also be: 1) installed with an accredited vessel monitoring system; and 2) deployed with an authorized fisheries observer onboard.

Singapore - The fishing license of Singapore has a validity of one year, renewable and issued by Singapore Food Agency (SFA). Licensing is separated into: 1) inshore and offshore fishing vessels, and 2) inboard and outboard fish carriers.

Thailand - Vessel registration is carried out by the country's Marine Department, while fishing license is issued by the Department of Fisheries (DOF). The fishing license issued is for two years from 1 April of year 1 to 31 March of year 2, by DOF (district fishery officer) in 23 coastal provinces. The problems on fishing license include the fact that some fishers continue to use high efficiency fishing gears without licenses or use other licenses instead, while most fishers renew their fishing licenses later than the expiry date. In order to address these problems, inspections by the fishery patrol units had been enhanced while reminders to concerned fishers on renewal of their fishing licenses are issued one month prior to the license expiry, while dissemination of information about license renewals has been intensified.

Box 18. Status of implementation of vessels registration and licensing undertaken by the AMSs (Cont'd)

Viet Nam - The country's Fisheries Law 2017 requires that all vessels with lengths that range from and greater than six (6) m must be registered at its fishing vessel management agency. Foreign fishing vessels, Vietnamese fishing vessels operating outside of Viet Nam Sea should register at the Central level, while all fishing vessels should register at the province levels. Vessels with length less than 6 m are listed at the commune for management purposes. In terms of fishing license, vessels with lengths that range from and greater than 6 m are required to have fishing license to do fishing, and are given fishing license if the quota of fishing license allocation is available. The fishing license quota is defined every five years, however, the quota for foreign fishing vessels exploiting the fishery resources in Vietnamese waters is defined every year. At the national level, the Ministry of Agriculture and Rural Development defines the total quota of fishing licenses in the country's offshore waters that are allocated to the coastal provinces. The Provincial People Committee of the coastal provinces defines the total quota of fishing licenses in the inshore and coastal waters. This system however, has some issues that include lack of sufficient available data for defining and allocating the fishing license quota upon specific waters, among others. In order to address the existing issues, the fisheries management authority has implemented outreach programs to improve the understanding and awareness of local fishers, and enhanced stock assessments and fisheries research to provide insights into the wealth of fish stocks and social-economic performance of the country's fishing industry.

International and regional initiatives on fishing vessels database as information to support combating IUU fishing

- FAO Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels

The Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels (Global Record) developed by FAO is a global initiative that primarily involves state authorities and regional fisheries management organizations (RFMOs) in compiling an online comprehensive and updated repository of vessels involved in fishing operations. The Global Record is aimed at providing useful and powerful tool to deter and eliminate illegal, unregulated, and unreported (IUU) fishing activities, within the framework of legal instruments available including the Port State Measures Agreement (PSMA), making it more difficult for vessels to operate outside the law.

An essential element of the Global Record is the assignment of a Unique Vessel Identifier (UVI) to each vessel worldwide, which remains constant throughout the vessel's lifetime regardless of change of name, ownership or flag.

The information in the Global Record requires only 5 key data elements, such as: 1) Unique Vessel Identifier (UVI), 2) Current flag, 3) Vessel name, 4) Length overall (LOA), and Either Gross Tonnage (GR) or Gross Registered Tonnage (GRT). On the other hand, the RFVVR Database has 28 KDEs as shown in **Table 69**.

- Regional Fishing Vessels Record Database

The Regional Fishing Vessels Record (RFVVR) Database for vessels 24 meters in length and over was developed by SEAFDEC/TD in collaboration with the AMSs under the ASEAN-SEAFDEC Strategic Partnership (ASSP) mechanism. The RFVVR Database includes basic information required for the Database to serve as effective tool to support fishing vessel inspection in an effort to reduce Illegal, Unreported and Unregulated (IUU) fishing vessels through enhanced transparency, traceability, and support inspection in relation to the promotion of port State

measures (PSM) activities. It is expected that the RFVVR Database could work as a practical tool for concerned authorities such as the local inspectors, port state inspectors, high rank fisheries officers, and technical fisheries officers of the AMSs in checking and taking corrective actions against inappropriate behavior of their respective countries' fishing vessels, thereby supporting the elimination of IUU fishing in the Southeast Asian region. For example, the AMSs would be able to take appropriate actions against "stateless vessels, IUU fishing vessels, or vessels engaged in poaching" by sharing information and identifying problematic vessels through the RFVVR Database.

The information in the RFVVR Database includes 28 key data elements (KDEs) that comprise the basic information requirements that could be shared by the AMSs with the RFVVR Database, as shown in **Table 69**. The number of fishing vessels 24 meters in length and over of the AMSs in the RFVVR Database, grouped into fishing vessels, carrier vessels, processing vessels, and support vessels, is shown in **Table 70**.

Table 69. Information from the AMSs on fishing vessels 24 meters in length and over to be shared with the RFVVR Database

1. Name of vessel	2. International Radio Call sign
3. Vessel Registration Number	4. Engine Brand
5. Owner Name	6. Serial number of engine
7. Type of fishing method/gear	8. Hull material
9. Fishing License number	10. Date of registration
11. Expiration date of fishing licenses	12. Area (country) of fishing operation
13. Port of registry	14. Nationality of vessel (flag)
15. Gross tonnage (GRT/GT)	16. Previous name (if any)
17. Length (L)	18. Previous flag (if any)
19. Breadth (B)	20. Name of captain/master
21. Depth (D)	22. Nationality of captain/master
23. Engine Power	24. Number of crew (maximum/minimum)
25. Shipyard/Ship Builder	26. Nationality of crew
27. Date of launching/Year of built	28. IMO Number (If available)

Table 70. Total number of fishing vessels in the RFVR Database (24 meters in length and over)

Country	Fishing vessels	Carrier vessels	Processing vessels	Support vessels	Total
Brunei Darussalam	10	-	1	-	11
Cambodia	6	-	-	-	6
Indonesia	1,988	222	-	-	2,210
Lao PDR	-	-	-	-	-
Malaysia	144	-	-	-	144
Myanmar	1,130	186	-	-	1,316
Philippines	67	93	-	7	167
Singapore	-	1	-	-	1
Thailand	339	19	-	-	358
Viet Nam	2,144	492	-	-	2,636

Remarks: Information in the Database of the Regional Fishing Vessels Record had been updated in 2021 (except those from Indonesia and Philippines that were updated in 2020)

- Vessels Watchlist

Participating countries to the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU) are doing their parts in controlling IUU fishing, upon recognizing that IUU fishing undermines the objectives of the RPOA-IUU, which is to enhance and strengthen the overall level of fisheries management in the region and to optimize the benefit of adopting responsible fishing practices. The countries have also become concerned that some fishing vessels that operate in the region do not comply with the obligations imposed by flag States.

The RPOA-IUU Secretariat shares the information among the RPOA-IUU participating countries about IUU vessels' movements and sightings. Their information indicates that there are several IUU fishing vessels suspected of unloading catch, re-supplying and/or re-fueling in the region. This has called for the establishment by the RPOA-IUU of a watch list of IUU fishing vessels to assist the countries in focusing their efforts to take action, where appropriate and when possible, in accordance with their national laws and consistent with the IPOA-IUU and other relevant international fisheries instruments, against vessels flagged to RPOA-IUU participating countries or flagged to a third party (non-RPOA countries) that are operating in the region and may be engaged in IUU fishing activities.

Vessels will be considered for inclusion in the Provisional IUU Watch List when there is evidence for believing that a fishing vessel has engaged in, or supported, IUU fishing activities. While transmitting the information to the RPOA-IUU Secretariat, the nominating RPOA participating country should provide a copy of such information to the relevant flag State.

Way Forward

To coordinate and facilitate sharing of information from the RFVR Database with the FAO Global Record in the future, series of discussions with authorities concerned from the AMSs had been convened. The mechanisms of sharing the information could be under the following proposed aspects, namely: A) bulk data upload, and B) connection to Application Programming Interfaces (APIs). The bulk data upload through CSV files is the only ready-to-use and currently available data exchange mechanism of the actual Global Record Information System. The CSV files, therefore, could provide an initial, short-term and satisfactory temporary solution to the issues on submission of data into the FAO Global Record. In essence, a CSV file is a simple file format which allows data to be saved in a table-structured format and could be opened using any spreadsheet program such as Microsoft Excel or OpenOffice Calc. The data upload through CSV/Excel files is based on simple spreadsheets called templates with selected sets of data fields as column/table headings. As a rule, States are the official sources and owners of the data, while the responsibility of keeping the data complete and up-to-date lies with the FAO Global Record. In this regard, regional fisheries bodies such as SEAFDEC would only act as data channels. Nevertheless, such arrangement may entail prior consent and final authorization of the relevant States to allow SEAFDEC to submit the States' respective data into the FAO Global Record.

The automated data exchange mechanism based on the Application Programming Interfaces (APIs) has been proposed to serve as platform in streamlining data transfer from national and relevant regional systems into the FAO Global Record, but this is still being finalized. The APIs would provide a programmatic interface through which data provider systems could automatically submit their data into the FAO Global Record. This method of communication between software systems is widespread and durable, technology-independent and makes use of the common internet for interoperability. Setting up such a channel

requires little software development effort and offers multiple benefits, which include *inter alia*, close to real time data updates, resource savings and improved consistency and reliability of data by reducing the possibility of human errors, decreasing delays and streamlining data transfer processes. As a result, the APIs will help to have a leaner system because of the regular updates, thus, “mass-update” bias of large and massive data information update is avoided. Since APIs, are “contracts” between systems, the API and the system architecture should be perfectly tuned up prior to the start of sharing any documentation and testing, thus, exchanging of information through the APIs would serve as a mid-term solution. When the system is ready, SEAFDEC would do its part in testing and fine-tuning the APIs.

6.1.1.3 Catch Documentation Schemes

Traceability system is one of the important emerging market requirements being put into force in response to the pressing needs expressed by the markets to ensure that fish and fishery products in the supply chain are not derived from IUU fishing activities. It is also being used to facilitate the tracking of the flow of products through the production processes or the supply chain to ensure that these are safe for human consumption. Since its enforcement by several markets in the mid-2000s, traceability has become a popular concept in industrial logistics, regardless of the production regimes and types of products. In the Codex Alimentarius Commission, traceability is defined as “the ability to follow the movement of a food through specified stage(s) of production, processing and distribution.” Therefore, traceability facilitates the compilation of knowledge and information regarding the identity, history and source of a product or of the materials contained within a product, and also provides information regarding the destination of a product, or any ingredient contained within it, making traceability system an information management tool.

In the fisheries sector, information on traceability is used in relation to: a) food safety to ensure that products and materials from which they are made, come from origins that meet food safety conditions; b) application of tariffs and quota tariffs, making sure that appropriate rates of duty are applied; and c) warranting that the fish is derived from sustainable sources, including those from fishing operations and vessels which follow the conservation rules.

The UN Fisheries Resolution on Sustainable Fisheries of 9 December 2013 expressed the concerns over the continued threat to marine habitats and ecosystems, such as from illegal, unregulated and unreported (IUU) fishing, and also acknowledges the negative impacts that such activities have on food security and State economies, particularly in developing regions. The Resolution therefore called upon States to, *inter alia*, initiate within FAO the elaboration of guidelines and other relevant criteria relating to catch

documentation schemes. In response to this request, as expressed in paragraph 68 of the Resolution, the Thirty-first Committee on Fisheries (COFI 31) in Rome, 9–13 June 2014, proposed that FAO undertake the elaboration of guidelines and other relevant criteria related to catch documentation schemes. Thus, the Voluntary Guidelines for Catch Documentation Schemes (VGCDS) were developed by FAO in 2017, which included the Catch Documentation Schemes (CDSs) for wild capture fish caught for commercial purposes in marine or inland areas, whether processed or not. Moreover, such Guidelines had also been elaborated to recognize that all available means are in accordance with relevant international laws and other international instruments, such as, the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) which should be used to prevent, deter and eliminate illegal, unreported, and unregulated (IUU) fishing. As part of the Guidelines, the CDSs build on the primary responsibility of the flag States to prevent, deter and eliminate IUU fishing, and also constitute a valuable supplement to port State and other measures. These Guidelines are therefore aimed at providing assistance to States, regional fisheries management organizations, regional economic integration organizations, and other intergovernmental organizations, in their efforts towards developing and implementing new CDS, or harmonizing or reviewing their existing CDSs.

A Catch Documentation Scheme (CDS) for the certification of legal provenance is referred to as the Catch Certification Scheme (CCS) with the central document referred to as a Catch Certificate (CC) - as opposed to a Catch Document or a Catch Form. Logbooks and landing records are also catch documentation schemes. Moreover, a CDS should be designed to address the concerns on IUU fishing, especially from the point of view of Monitoring, Control and Surveillance (MCS) or from a trade documentation perspective, and is an important tool in combating IUU fishing. However, since a CDS it is not equivalent *per se* to a traceability system, it has therefore become necessary to develop a Catch Documentation and Traceability System (CDT) not only to trace the fish and fishery products in the value chain but also to certify their origin and quality with respect to food safety and sustainability.

- Catch Documentation and Traceability Systems in Southeast Asia

The fisheries sector in Southeast Asia is critically important considering its significant contribution to the people’s social, economic, and livelihoods. Several ASEAN Member States (AMSs) have been the top ten seafood producing countries exporting to the world seafood market during the past decades and even now. However, challenges in addressing the international fish-trade related issues, particularly the IUU fishing issues, have significantly impacted on the ASEAN seafood export until the present.