## 8. FISHERFOLKS AND WORKERS IN FISHING ACTIVITIES

## 8.1 Labor in the Southeast Asia Fishing Industry

The FAO statistics indicated that Asia contributed the largest number of fishers and fish farmers compared to other regions of the world, where 87% of the total people are employed in the sector (FAO, 2016a). Such number comprises those engaged in different fishery sub-sectors, either part-time or full time, and regardless of their scales of engagement. Recognizing the importance of fishers and workers in fisheries sectors, the Southeast Asian countries have been confronted with pressing concerns on the need to combat IUU fishing associated with labor-related issues, as well as on the status of people engaged in fishing and related activities in the region.

The increasing demand of workers in the fisheries sectors to serve the expansion of intra-regional and international trade of countries in Southeast Asia, results not only in large numbers of migrant workers getting onboard to seek work opportunities in other countries but also large groups of workforce moving from one country to another. Receiving countries therefore need to take serious attention in addressing the issues and concerns in fisheries labor, especially the allegations that these workers receive low wages, their social security is either non-existent or inadequate, unskilled in relation to fishing operations, received inadequate training before working onboard fishing vessels, not aware of the requirements for safety at sea, possess fake or no legal documents, subjected to forced labor, child labor, human trafficking, experience poor working conditions and unfair treatment by employers, and that some fishing vessels do not comply with sea safety requirements (SEAFDEC, 2016e).

Several countries in the region therefore have revised their respective legal frameworks particularly those that are relevant to labor aspects in fisheries (SEAFDEC, 2016e). As an example, vessel owners and skippers in the Philippines are required to provide a guarantee that all crew members are to be treated in accordance with Philippine labor laws, before a fishing license is issued for a vessel. In Indonesia, a special Sub Directorate of Fisheries Labour and Manning a Fishing Vessel was established within the Directorate of Fishing Vessel and Fishing Gears under the Directorate General of Capture Fisheries of the Ministry of Marine Affairs and Fisheries. In Thailand, the Royal Ordinance on Fisheries of 2015 includes labor aspects (Art 11), and the Department of Fisheries (DOF) in cooperation with the Department of Labour Protection and Welfare (DLPW) and the International Labour Organization (ILO) had developed a set of four Good Labour Practice (GLP) Guidelines which are pending endorsement by the Government.

Considering that issues on migrant labors and workers are regional in nature and could not be solved by a particular country alone, close communication and cooperation among countries are therefore required taking into consideration the existing "ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers" (ASEAN, 2007). In particular, during the regional consultation organized by SEAFDEC in 2016, it was agreed that the roles and obligations of the "Receiving State" and the "Sending State" should be strengthened, and that establishment and enforcement of Memorandum of Understanding (MoU) between sending and receiving countries should be promoted (SEAFDEC, 2016e). Moreover, receiving countries should consider developing standard employment contracts and other protection measures, and support the workers through the conduct of specific pre-departure training programs (occupation, language, culture), especially those who intend to work in the fisheries sector while sending countries should provide specific pre-departure training program (occupation, language, culture) for workers who intend to seek employment in the fisheries sector based on the MoU. The Philippines, Indonesia, and Viet Nam actively promote and provide opportunities to fishery labor, and continue to enhance the capacity of their national fishing crew before they go abroad to work in the fisheries sector. Furthermore, countries should also ensure that crew members receive decent working conditions abroad.

Issue on gender also has a very close linkage with the fisheries sector of the region, considering that women provide labor not only before or during fishing activities but also after. The role of women is not only limited to small-scale but also in industrial fisheries as well as in aquaculture, particularly at the processing and marketing stages, as well as in financial management. It is therefore necessary that women should be empowered to be involved in decision-making processes, and the roles of women in fisheries should be emphasized and well recognized. Furthermore, in order that the issue on gender is appropriately addressed in the region, such issue should also be mainstreamed in fisheries and aquaculture development projects at all stages, from planning, implementation, and evaluation, as well as in national fisheries development strategies as appropriate and applicable for the respective countries.

## 8.2 Safety at Sea, Working Condition, and Safety Onboard Fishing Vessels

In Southeast Asia, the number of registered fishing boats as of 2014 was reported to be approximately 800,000 (SEAFDEC, 2016a), comprising non-powered boats, outboard powered boats, and inboard powered boats; and operating either in the inland, coastal, or marine areas.



Specifically for marine fisheries, the number of fishing boats was reported to be more than 115,000 (SEAFDEC, 2016a). In nine ASEAN Member States (except Lao PDR), the types and sizes of fishing boats could be very much different among the countries, while the fishing boats operate either within or outside the EEZs of respective countries. With the main fishing grounds in the Indian Ocean, South China Sea, Gulf of Thailand, Sulu Sea, and Sulawesi Sea, sea and weather conditions are usually not very harsh, except during the monsoon season.

Considering the differences in nature and characteristics of fishing activities as well as in the design of boats among the countries, issues on safety of fishing crew and working conditions need to specifically focus on particular types of fishing boats and corresponding countries that engage in the activities. As an example, the operation of gillnet uses small-size fishing boat with few fishers involved, the fishing gears and devices used are simple, and the operation is undertaken near shore. In the contrary, for purse seine operations, fishing boats are huge with gear that comprise large net with sophisticated devices, large number of fishers are involved, work could be very tiring, and operations are carried out far away from the shore.

On working and living conditions including safety of fishing crew onboard the fishing vessels, most countries claim that their fishing boats provide decent working conditions to the crew. However, the level of standard among the countries could be greatly different. For example, fishing boats of Brunei Darussalam are small in number but most are large in size and manned by migrant crew members. As shown in **Figure 82**, in commercial fishing boats of Thailand, 84% of crew members are migrant workers coming from Myanmar, Cambodia, and Lao PDR, while in Malaysian commercial fishing boats, 82% of crew members are migrants from Thailand and Viet Nam (SEAFDEC, 2016e).

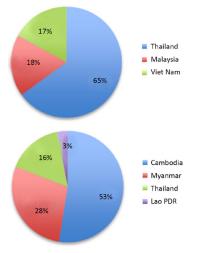


Figure 82. Nationalities of crew in Malaysian and Thai commercial fishing boats

Source: SEAFDEC. 2016e

From the scenario on migrant workers in Malaysian and Thai fishing boats, it could be noted that Thai and Vietnamese fishers prefer not to work in fishing boats of their own countries, but prefer to work in other countries, particularly in Malaysian fishing boats perhaps due to better working conditions and wages. While Thailand claims shortage of Thai crew to work onboard Thai fishing boats, large numbers of workers from Cambodia and Myanmar prefer to work in Thai fishing boats than in their respective countries. Migration of fishing crew could therefore be one of the indicators for evaluating the working condition and standards onboard fishing vessels among the five Southeast Asian countries, *i.e.* from Malaysia, Thailand, Viet Nam, Cambodia, and Myanmar.

For countries like the Philippines, Indonesia, Singapore, and Brunei Darussalam, the issues could be in terms of safety during the fishing operations, and safety of the fishing boats. Nevertheless, the issue on safety of fishing boats should be considered a priority as this has linkage with relevant laws, regulations, and management of the respective countries, as well as with relevant international conventions, of which some provisions are applicable to the Southeast Asian countries. Some provisions of the international convention are however, of very high standard and nearly impossible for the countries in the region to adopt. Majority of fishing boats in the Southeast Asian region are small boats, and the countries have their respective regulations in relation to safety standards of fishing boats, which could differ from one country to another but are practical enough for their specificity and use. Therefore achieving standards at international level may not be possible, taking into consideration the scale of fishing boats, the status of countries, as well as the nature of boats and fishing activities. The important question is therefore on what should be the appropriate safety standards, and what factors should be considered in establishing the relevant regulations on safety standards.

Furthermore, it should be noted that at this moment, there is no regulation that ensures appropriate standard for the Southeast Asian region with respect to the working conditions onboard fishing boats. Developed countries such as those in the EU or Japan, and others have much better working condition standards compared with those in the Southeast Asian region but the "Safety Guide for Small Fishing Boats" developed by FAO could be adopted. However, considering that such FAO guide may not be fully suitable for small-size fishing boats in the Southeast region in several aspects, in 2003, SEAFDEC addressed this issue by organizing several fora to raise the issues on safety of small fishing boats in the region, and came up with regional guidelines that take into consideration the specificity of the countries in the region.

Specifically, SEAFDEC conducted the "Regional Workshop on Safety at Sea for Small Fishing Boats" in December 2003 to raise the issue on boat design and construction, equipment and its correct usage, search and rescue operations, occupational health, and safety awareness including the avoidance of dangerous fishing practices (SEAFDEC, 2003b). Subsequently, the second and third Workshops that addressed issue on safety at sea for small fishing boats were organized in April 2010 and December 2011, respectively; while the Regional Training Workshop on Optimizing Energy and Safety at Sea for Small-scale Fishing Vessels was also organized in February 2013 to enhance the capacity of AMSs towards effective enforcement and management of safety measures by relevant authorities and stakeholders.

In 2005, FAO, ILO, and the International Maritime Organisation (IMO) developed the "Code of Safety for Fishermen and Fishing Vessels," "Part A" of which provides information that promote the need to ensure safety and health of crew members onboard fishing vessels, while "Part B" provides information on the design, construction, and equipment of fishing vessels with a view to promoting the safety of fishing vessels as well as safety and health of the crew. The "Voluntary Guidelines for the Design and Construction and Equipment of Small Fishing Vessels" and the "Safety Recommendations for Decked Fishing Vessels of Less Than 12 Meters in Length and Undecked Fishing Vessels" was subsequently approved to support the implementation of the Code by competent authorities. In connection to such developments, and to support AMSs in the implementation of the guidelines particularly to help competent authorities in formulating their own legislation and regulations or other measures for the safety of fishing vessels, SEAFDEC facilitated the translation of the Safety Recommendations into AMSs' national languages, namely: Thai, Khmer, Vietnamese, and Burmese.

In 2007, ILO also established the "Convention Concerning Work in the Fishing Sector" or Convention C-188 (ILO, 2007a), with recommendations concerning work in the fishing sector or Recommendations R-199 (ILO, 2007b). The ILO convention is very useful to ensure that fishers have decent conditions of work onboard fishing vessels with regards to minimum requirements for work onboard; conditions of service; accommodation and food; occupational safety and health protection; and medical care and social security. Although ILO's Convention No. 188 has been referred to by several countries, some articles in this convention seem not suitable and not practical for application by fishing boats in the Southeast Asian region.

The Convention for the Safety of Life at Sea or SOLAS (IMO, 1974), which is an important international treaty concerning the safety of merchant ships, could not be

applied to fishing boats in the Southeast Asian region. However, the Torremolinos International Convention for the Safety of Fishing Vessels (IMO, 1977) which was replaced by the Torremolinos Protocol (IMO, 1993), contains safety requirements for the construction and equipment of new, decked, seagoing fishing vessels 24 meters in length and over, including those vessels that also process their catch. Nevertheless, neither the Torremolinos Convention nor its Protocol had been entered into force. Considering that construction of fishing boats in this region have been undertaken mostly in the traditional way of the respective countries, more than 80% of these boats could not be renovated to meet the requirements of the Convention. Nonetheless, the traditional design of fishing boats could also have their advantages and disadvantages, e.g. Philippine outrigger fishing boats have very good stability but inconvenient for living. Therefore, standards must be considered for fishing boats type by type. The location of fishing operation, condition of the sea, communication method between ship to shore and ship to ship, are also important factors that should be considered and adjusted to improve the status of fishing boats, especially those in the Southeast Asian region.

Taking into consideration therefore the provisions in Convention C-188, Recommendation R-199, as well as relevant guidelines developed by organizations such as FAO, IMO, ILO, areas that should be considered in improving the working and living conditions and safety of fishing boats in the Southeast Asian region, could include:

- 1. Seaworthiness boat design and construction
- 2. Pattern of working fishing gears and operations, working hour, time of operation
- 3. Efficiency of crew knowledge, experience, and responsibility of crew
- 4. Condition of equipment and gears
- 5. Fishing boat accommodation
- 6. Fishing boat hygiene and food
- 7. Supporting exercise

On the standard of fishing boats, issue on "seaworthiness" is among the primary concerns, as either small or big vessels have their own property to withstand harsh sea conditions. Although there are several guidelines on boat design and construction, none of these could be applicable for fishing boats in the Southeast Asian region.

Recently, issues on working and living conditions onboard fishing boats and safety at sea are among the important factors that affect trading of fish and fishery products coming from the Southeast Asian countries. As an example, the Philippines was issued a yellow card from EU in 2014 that necessitated the improvement of the country's laws in relation to working conditions and safety at sea, some of the criteria imposed by EU before Philippines



could export its fish and fishery products to the EU. After taking action to address such issues, the yellow card was lifted after few years. Nevertheless, the Philippines continued to improve the working and living conditions onboard its fishing boats by establishing in May 2016 the Rules and Regulation Governing the Working and Living Conditions of Fishers Onboard Fishing Vessels Engaged in Commercial Fishing Operations (Department Order No. 156-Series of 2016). Thailand also got a yellow card from the EU in 2014, and one of the actions undertaken by the country is to improve its national law concerning working and living conditions, and safety at sea of fishing boats. Thailand was also ranked in 2015 with "Tier 3" by the US State Department's Trafficking in Persons (TIP) Annual Report which rated the country with the worst human-trafficking records. After several improvements of its national laws and regulations, Thailand's status was upgraded in mid 2016 to the "Tier 2 Watch List."

Future challenges of the Southeast Asian region would therefore be on whether the countries could accommodate the requirements stipulated in relevant international convention and recommendations in their respective legal frameworks, and actively undertake measures to upgrade or enhance the level of working and living conditions, and safety onboard fishing boats in the future. Close cooperation among countries and thorough understanding of the issues and emerging requirements are among the most important requirements that need to be pursued.

## 9. COMPETITION ON USE OF WATER RESOURCES WITH OTHER SECTORS

Increasing demand for food, water, and energy, owing to the increasing global population and consumption pattern, makes services from aquatic ecosystems either inland or marine, more in demand while aquatic resources undergo more stress from competition and over-utilization. Under such a situation coupled with anticipated impacts of climate change which could be more prominent in the future, the fisheries sector is likely to face higher competition with other sectors sharing the limited water resources.

For inland capture fisheries, the most obvious competition could be seen from the alterations of inland aquatic habitats for urbanization and industrialization purposes. With increasing human population, large areas of floodplains are converted into housing areas, resulting in the shrinkage and disconnectedness of aquatic habitats, exacerbated by road constructions without sufficient underway, threatening the sustainability of inland aquatic biodiversity and the fishery resources. Urbanization and industrialization also create higher demand for water resources for household consumption and at the same time generate large amounts

of wastes that pollute and contaminate the natural bodies of water if not properly disposed of or treated.

As the main priority food producing sector of the Southeast Asian region, agriculture is also the highest waterconsuming sector. With human population that continues to increase together with food security requirements, greater demand for water is created to boost production through agricultural intensification. Higher inputs are used by farmers, particularly chemicals in fertilizers and pesticides, to produce higher yields and increase profits. Agricultural intensification also creates impacts on the natural bodies of water, e.g. discharge of excess nutrients and chemicals that leads to contamination and eutrophication of the aquatic habitats resulting in degradation of aquatic habitats and resources. Development of irrigation systems to support agricultural intensification also affects the fisheries sector as the natural aquatic habitats and water resources are altered in the process. The anticipated impacts of climate change (e.g. longer drought during dry season, heavier rains and floods during rainy season) also have their repercussions on the availability of water supply for irrigation purposes and fishery activities in the future.

To enhance the effective utilization of land and water resources, integrated agriculture-aquaculture could be considered as an option which could also mitigate the conflict between the fisheries and agriculture sectors, *e.g.* fish culture in rice fields (rice-cum-fish) with reduced or restricted use of pesticides and weedicides in rice cultivation and where fish is stocked to gain yield from both rice and fish, integrated fish farming that could make use of wastes from livestock and poultry for primary production of herbivorous fish. Fish from integrated aquaculture, although considered as secondary or complementary production, could contribute to production of nutritionally balanced food for the people.

Along with urbanization, industrialization, and agricultural intensification, cross-river obstacles are also being constructed in several Southeast Asian countries for development purposes, e.g. to increase domestic water supply, improve irrigation systems, and enhance hydropower generation. Construction and operation of dams not only create disconnectivity of aquatic habitats but also require sufficient level of water supply to sustain their functions resulting in diversion of water from adjacent catchments creating alterations of the habitats in natural water bodies. While it is well recognized that construction of cross-river obstacles would result in drastic impacts on aquatic biodiversity, fishery resources, and livelihood of people that are dependent on these resources, such impacts are hard to quantify compared with the benefits that could be gained from other sectors, e.g. hydropower generation, crop production, among others. Although mitigating