

For this reason, the ASEAN-SEAFDEC Member Countries developed the “Joint ASEAN-SEAFDEC Declaration on Combating IUU Fishing and Enhancing the Competitiveness of ASEAN Fish and Fishery Products” with the main objective of enhancing regional cooperation in sustainable fisheries development in light of the unification of the ASEAN Economic Community. After obtaining support and agreement during the Special SOM-36th AMAF (August 2015), the Joint ASEAN-SEAFDEC Declaration on Regional Cooperation for Combating Illegal, Unreported and Unregulated (IUU) Fishing and Enhancing the Competitiveness of ASEAN Fish and Fishery Products was adopted during the “High-level Consultation on Regional Cooperation in Sustainable Fisheries Development Towards the ASEAN Economic Community” in Bangkok, Thailand in August 2016 (**Box 13**). The Joint Declaration is envisioned to encourage all AMSs to implement the regional initiatives towards managing fishing capacity and combating IUU fishing in the Southeast Asian waters.

5.2 Management of Inland Capture Fisheries

Fish resources are renewable natural resources that can be used sustainably through rational exploitation which could be maintained under appropriate fisheries management measures. There are many successful examples of sustainable fisheries management in marine fisheries but the much needed systematic management measures in inland fisheries are still limited.

Fisheries management is defined as the integrated process of information gathering, analysis, planning, consultation, decision-making, allocation of resources, and formulation and implementation, with enforcement as necessary, of regulations or rules which govern fisheries activities to ensure continued productivity of the resources and accomplishment of other fisheries objectives (FAO, 1997). There are many measures and methods used to regulate the fisheries activities, especially in marine fisheries, *e.g.* regulating the mesh size and types of fishing gears, regulating the maximum number of fishers entering the fishing grounds, introducing closed seasons and areas, establishing fish sanctuaries, promulgating fisheries decrees, and so on. For inland fisheries in the Southeast Asian region, which could be closely related to the fishers’ and fishing communities’ livelihoods, management measures should be considered not only on the resources but also on the socio-economic aspects of the relevant stakeholders.

In the Southeast Asian region, there are many types of fisheries management measures that could be applicable for inland fisheries, *e.g.* co-management, community-based fisheries management, adaptive co-management,

rights-based management, integrated management, government-based management, and Ecosystem Approach to Fisheries Management (EAFM). EAFM is one of the latest methods on managing fisheries activities with consideration given on the surrounding conditions around the fishery sector (Staples *et al.*, 2014). Successful cases of the introduction of EAFM concept in marine fisheries could be adapted as appropriate, in inland fisheries.

Nonetheless, there are a variety of challenges that confront the promotion of inland fisheries management in the Southeast Asian region. These include lack of data and information, environmental degradation, overexploitation of resources and habitats, rapidly increasing population, and increasing demands for fish and freshwater. These challenges should be addressed while awareness building on the value of inland fisheries and inland waters in this region should be intensified and continued.

5.3 Responsible Fishing Practices

5.3.1 Management and Reduction of By-catch from Trawl Fisheries

In the Southeast Asian region, there have been discussions and debates over the need to reduce by-catch from fishing activities, particularly in trawl fisheries where catch is multi-species, and the amount of by-catch could be as much as or even more than the target species. There are also evidences of decreasing average sizes of landed fish and declining Catch Per Unit Effort (CPUE) demonstrating that overfishing occurs in several trawl fishing grounds in the region. Moreover, conflicts between fleet segments also commonly occur when zoning regulations are not enforced, *e.g.* larger trawlers encroaching on waters reserved for small-scale fishers. In Southeast Asia, although catch from trawl fisheries tends to be fully utilized and the concept of by-catch may not be fully relevant, it could be observed that some parts of the catch may be considered undesirable due to the poor quality and inadequate management.

By definition, by-catch is the catch of fish or other aquatic animals and plants that a fisher does not intend or want to catch, does not use, or which should not have been caught in the first place. However, in most of the region’s fisheries, the latter part of the definition is more relevant than the former since it includes catch of juveniles of commercial species. A wide range of problems on by-catch have emerged in specific fisheries, including the capture of species that are protected, endangered or threatened, as well as juvenile fish. In some fisheries sectors, there is an increasing trend towards retention of by-catch consisting of juveniles and small-sized fish for human consumption or for utilization as aquafeed. Therefore, there is a need to address the by-catch and discard problems in the Southeast Asian region.