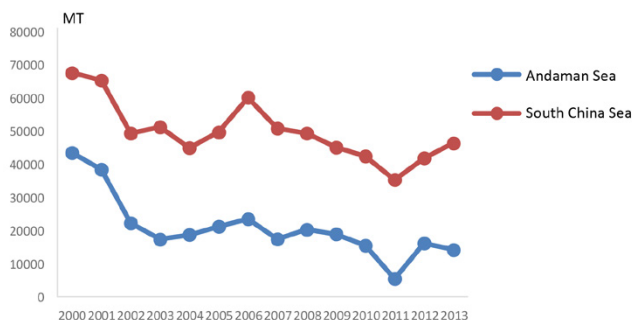


In Kelantan, Malaysia the average price for fresh anchovy is about Malaysian Ringgit (RM) 1.50/kg (RM 1.00 = US\$ 0.23 (as of June 2017)). Meanwhile, less quality fresh anchovies are processed into fish sauce, locally called “budu”. The most abundant anchovy species landed in Genting, Tumpat is *Encrasicholina punctifer*, locally called “bilis tembaga hitam”. Dried products of this species are sold for RM 12/kg (Faisal, 2015). In Viet Nam, anchovies are sold at local markets and processed into commercial products such as fish sauce, dried and fish milk (Bat and Cuong, 2016).

Anchovy fishery in the Southeast Asian region especially in the South China Sea is very active. In order to assess the current status of anchovy resources, it is necessary that more surveys be conducted not only in the South China Sea but also in the Andaman Sea. The results could provide accurate and comprehensive information necessary for the management of the current stocks of anchovies. Considering the possibility that these resources are shared among neighboring countries in the South China Sea and Andaman Sea, regional management measures should be established and such effort needs serious consideration by all countries concerned.

### 1.1.5 Sardines

Sardines (Family Clupeidae) are important small pelagic fishes utilized for several fishery products such as canned, dried, smoked, boiled, and fermented (fish sauces), and are also marketed fresh by many countries such as Malaysia, Indonesia, and Philippines. Sardines are normally found in the coastal and offshore areas at water depths ranging from 30 to 70 m, feeding on phytoplankton and zooplankton. There are three common species of sardines found in the Southeast Asian region, namely: *Sardinella gibbosa*, *S. frimbriata*, and *S. albella*. Catching of sardines in the Gulf of Thailand depends on seasonal spawning with the peaks predicted in March-April and July-August. Purse seine is the main fishing gear used to catch sardines.

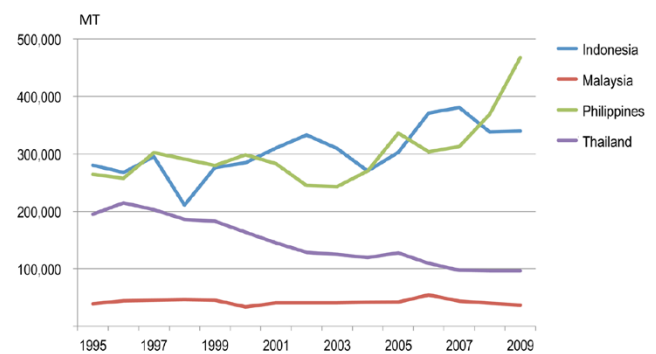


**Figure 59.** Production trends of sardines in the South China Sea (SCS) and Andaman Sea (AS) in 2000-2013 by quantity

Source: SEAFDEC (2005a; 2006; 2008a; 2008b; 2009a; 2010a; 2010b; 2011; 2012a; 2013; 2014; 2015a; 2016a)

The available statistical data on catch of sardines in Southeast Asia from 2000 to 2013 suggested that the trend of sardines catch from the South China Sea was about three times more than that of the Andaman Sea (Figure 59). Nonetheless, the total catches from these two fishing grounds seemed to be declining from 2000 until 2013 with some recoveries in 2006 and 2012.

The total production of the main sardine producing countries in the region seemed to have fluctuated during the period 2000-2013, with the total catch varying from 15,000 metric tons to 46,000 metric tons, with peaks noted in Malaysia in 2000 and Thailand in 2006 (Figure 60). The total catch of sardines was stable at about 40,000 metric tons in Thailand, while for Malaysia although the catch also fluctuated, this seemed to follow slight increasing trends in 2000 but decreased in 2011. Philippines showed increasing trend from more than 250,000 metric tons in 2000 to 313,000 metric tons in 2007. Likewise, the catch of Indonesia also increased from more than 280,000 metric tons in 2000 to 380,000 metric tons in 2007.



**Figure 60.** Production trends of sardines from main producing countries of Southeast Asia in 1995-2009 by quantity

Source: SEAFDEC (2012b)

## 1.2 Important Demersal Fishery Resources

The most economically important demersal fishes distributed from the coastal areas to the continental shelf slopes in the Southeast Asian region include the threadfin breams (Family Nemipteridae), lizardfishes (Family Synodontidae), bigeye snappers (Family Priacanthidae), croakers (Family Sciaenidae), and goatfishes (Family Mullidae), as well as other pelagic fishes including barracuda (Family Sphyraenidae). Considered as by-catch, these fishes are now being targeted and used as raw materials in the production of surimi not only in the region but also in the world, because of their properties and characteristics appropriate for processing into export-quality surimi.