# Prospects of Large Pelagic Fishes to Enhance Fisheries Blue Economy of Bangladesh

Md. Jalilur Rahman, PhD



The Fisheries Blue Economy might be defined as the sustainable use of marine fisheries resources for economic growth, fishers' livelihoods improved and ecosystem health. The Exclusive Economic Zone (EEZ) of Bangladesh covers an area of 1,18,813 sq km. It is very rich in fisheries resources. Still, proper utilisations of all types of resources are urgently needed to enrich the Fisheries Blue Economy (FBE) of the country. Many Large Pelagic Fishes (LPFs) are precious in many marine fish-loving countries like Japan and European countries, but those fishes are yet to be popularised and utilised in Bangladesh. There is ample scope to utilise more LPFs as a valuable export commodity to get more economic benefit for our anglers and FBE growth, This article highlighted some prospects of important LPFs and recommended proper utilisation measures for enhanced FBE growth.

#### Important Large Pelagic Fishes

Tuna. The most valuable tuna available in the EEZ of Bangladesh and the adjacent international water area is the yellowfin tuna (Thunnus albacares). Yellowfin tuna an is essential component in Japan's sashimi sector, hence this species fetches a high price on the international market. India is exporting this high valued species to Japan and earning foreign currency. We waiting for that dav are when Bangladesh will harvest a considerable quantity of yellowfin tuna and export it to



earn foreign currency. Another important tuna species available in Bandladesh EEZ is skipjack tuna (Katsuwonus pelamis), the most important export commodity in the Maldives. Three other tuna species, bigeye tuna (Thunnus obesus), frigate tuna (Auxis thazard) and bullet tuna (Auxis rochei) are also available in the EEZ of Bangladesh but in small quantities. All the five tuna species stated above are deepwater the migratory, SO harvesting and efficiency of those species will depend on when, where, and how the fishers would use the appropriate fishing gears. Nonetheless, the most abundant tuna species in the artisanal fishery of Bangladesh is the shallow water tuna, Indo-Pacific little the tuna. or Kawakawa, locally called Bom-Maitta (Euthynnus affinis). Though this species is abundant in Bangladesh EEZ and harvested by artisanal fishers, its market price is very low due to the presence of unattractive blackish-red meat throughout its body.

**Mackerel.** The most abundant, very popular, moderate-priced tuna-like fish is mackerel. In the Bay of Bengal, especially in India and Bangladesh EEZs, the Indian mackerel (*Rastrelliger kanagurta*), locally called Champa constitutes the major share of the group. Still, its market price is the lowest as it is the smallest member of the group. The

medium-sized Indo-Pacific king mackerel (*Scomberomorus guttatus*) is locally known as Maitta. The large-sized Spanish mackerel (*Scomberomorus commersoni*), locally known as the Rocket Maitta are the two popular mackerel species, and their popularity is increasing day by day.



**Swordfish.** Swordfish (*Xiphius gladius*), locally known as Korat Mach or Ekthuitta is the 2nd most high priced LPF available in the Bay of Bengal. This species has a significant potential for contributing to the export market and boosting Bangladesh's FBE growth.

Indo-Pacific Sailfish and Marlins. sailfish billfish (stiophorus or platypterus), Indo-Pacific blue marlin (Makaira mazara), black marlin (Makaira indica) and striped marlin (Tetrapturus audax) are very similar species and resemble each other unless the dorsal fins are compared. In sailfish, the dorsal fin is much larger than that of marlins. The ECOFISH II team recently observed that the sailfish and marlins are unusually increased in the artisanal catch landed in Cox's Bazar, Patuakhali and Barguna regions. However, these fishes are not so popular in Bangladesh and remain as low priced species.

**Pelagic Sharks.** Swordfish, sailfish, and marlins are all prey for large pelagic sharks. So, the balance between these



sharks and those prey is vital for ecosystem balance, There are three main species of the large pelagic sharks in the Bay of Bengal, which are thresher pelagicus), (Alopias biaeve sharks thresher sharks (Alopias superciliosus) (Carcharhinus and silky sharks falciformis). The recent upsurge of the sailfish and marlins might be due to the decrease of these large pelagic sharks population. Another cause could be a scarcity of sailfish and marlin prey in the deep sea; thus, they went to shallower waters to hunt them, becoming caught in artisanal fishing nets and arriving in local landing centres.

### Some Initiatives in Exploring LPFs

As a first initiative to utilise the large pelagic species of the Bay of Bengal, scientific exploration was conducted in 2007 under BIMSTEC (Bay of Bengal



Initiatives for Multi-Sectoral Technical Economic Cooperation). and The exploration involved two scientists from each member countries Bangladesh, India, Myanmar, Sri-Lanka, Nepal and Thailand. The writer was one of the members of the 3-month long cruise the SEAFDEC-2 (South-East usina Asian Fisheries Development Centre) Research Vessel. In this expedition, the presence of all the species described above was documented. As a follow-up to that activity, Bangladesh became a member of the Indian Ocean Tuna Commission (IOTC), DoF formulated a Pilot project on tuna and similar pelagic fishing in the deep sea. The project has been implemented since 2020 with some technical assistance from Sri-Lanka and will be completed in 2023. BFRI conducted some catch and size assessment activities of mackerel and tunas in Cox's Bazar area. Finally, ECOFISH II project of WorldFish is monitoring the catch and size of important large pelagic species like mackerel, tuna, sailfish, marlins and sharks available in the Cox's Bazar region. This information will be helpful to formulate a sustainable management plan for those species.

## Recommendations to Utilise LPFs

> Assess stocks of LPFs focusing on yellowfin tuna, skipjack tuna and swordfish and standardised commercial harvest protocol

> Motivate prominent entrepreneurs in harvesting and exporting tuna and tuna-like species focusing on yellowfin tuna, skipjack tuna, swordfish and mackerels

> Popularise LPFs for domestic and export markets, highlighting a the nutritional benefits of those species

> Produce various value-added products using LPFs and popularise those products for domestic and export markets

> Popularise and technologically as well as financially supports harvesting, processing and exporting LPFs and their products for the domestic and export-oriented ventures

> Promote Sri-Bangla longlining fibreglass boats which are being manufactured in Bangladesh for small-scale fishers to catch LPFs in the Bay of Bengal

> Consider and promote LPFs as a priority sector of FBE growth in Bangladesh

#### Conclusion

Τo enhance nutritional the and economic benefits from FBE, we need to explore and promote LPFs for domestic and export markets. The prominent entrepreneurs and smallscale fishers need to be motivated and supported both technologically and financially in harvesting and exporting tuna and tuna-like species focusing on vellowfin tuna, skipjack tuna, swordfish and mackerel. If we can ensure those activities support LPFs utilisation, FBE will be enhanced, fishers' livelihoods will be improved, and Bangladesh will get extended economic benefits.

Writer: Md. Jalilur Rahman, PhD is a Scientist, ECOFISH If Project of WorldFish, Bangladesh.