Fishery status of large pelagic resources of Andaman and Nicobar Islands

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The Andaman and Nicobar with an aggregate coastline of 1,912 km has an estimated annual harvestable potential of marine fish around 2.4 lakh tons. The fish landing data obtained from Dept. of Fisheries, UT of Andaman & Nicobar Islands was used for analysis. Marine fishery is limited to territorial waters by around 7,500 active, full time fishermen mainly by traditional and motorized boats using drift gillnets, hooks and line (hand lines), cast net, shore seine, anchor net and stick net. Trawls are also operated from certain locations using mechanized boats. The aborigines and Nicobari tribes in a few Islands are involved in subsistence fishery using bow & arrows and spears. Marine fish production over the years registered steady increase. It was 1,104 t (1975), which increased to 31,000 t by 2004 and 38,583 t during 2014-19, which forms only 15.8% of the estimated potential yield of the EEZ.

The seas around territory support one of the richest stocks of large pelagics (LP) of the Indian Ocean. The vast seamounts and ridges, around the territory an ideal environment and provide safe haven for feeding and their aggregation. The dominant LP resources of the region are tunas, billfishes, seerfishes, wahoo, barracudas, queenfishes, rainbow runners, pelagic sharks etc. Details of exploitable potential and present level of the landing is provided in the Table 1 below.

LP fishery of the region at present is limited to coastal seas by motorised/mechanized boats engaged in gillnetting and hand lining. Despite large potential, the present level of landing is very meager, to the tune of 6,327 t representing 7.9% of their estimated potential with coastal tunas (33%), billfishes (23%), seerfishes (15%), barracudas (11.8%) and pelagic shark (14.4 %)

Table 1. Harvestable potential of major LP resources and average landings during 2014-2019

Resource	*Potential yield (t)	Landing (t)
Coastal tunas (kawa kawa, frigate tuna, long tail tuna, bullet tuna)	18,000	2,066
Yellowfin tuna	24,000	93
Skipjack tuna	22,000	85
Bigeye tuna	500	11
Billfishes	2,800	1,473
Barracuda	2,200	746
Dolphin fish	200	-
Wahoo	200	-
Seerfishes	1,800	941
Pelagic sharks	11,200	912
Total LP potential	80,300	6,327
Total marine potential	2,43,500	38,278
LP component (%)	33	16.5
*Proceedings of Brainstorming session on 'Development of Island		

Fisheries', ICAR-CARI, 2008

recorded. The landing fluctuated between 5,000 and 6,750 t during 2013-19 with landing of coastal resources maintaining a steady level and oceanic resource on increase (Fig 1). Coastal LP resources comprising coastal tunas and seerfishes dominated the landing (59%) and oceanic LP mainly comprising oceanic tunas (yellowfin, skipjack, bigeye & dogtooth tunas), billfishes, pelagic sharks, king seer, wahoo, large barracudas and dolphin fishes were recorded.

Several schemes had been proposed by various expert groups and task forces in the past to develop the fisheries in the region. The main reason for the nondevelopment of the fishing Industry and under-utilization of the valuable LP resource can be attributed to total absence of enthusiasm among the local fishers, because of the lack of appropriate market linkages for disposing the produce, if caught which forced them to limit the fishery activity at sustenance level within in near-shore waters, only to meet the local demand. Large natural abundance of high value resources like, tunas, seerfishes, billfishes barracudas etc in the mostly pollution free oceanic waters, proximity to many international seafood markets and transit point like Singapore are major strengths. The local fishers who are mainly descendants of traditional seafaring community from Tamil Nadu, Andhra Pradesh and West Bengal ettled decades back can be adequately trained for oceanic fishing activities.

The connectivity with Indian mainland, existing fishing sector dominated by traditional and small mechanized crafts with operational capacity limited to shallow territorial waters are handicaps to target large high value fishery resources available in deeper oceanic waters. Further, the existing infrastructure is highly inadequate to handle and process the fish catch. A well planned fishery development programme supported by a scientific fishing policy is the need of the region. Assessment of fish stock health and operational viability through a phased development will allow the tapping of the huge fishery potential of the region. Island based infrastructures like modern harbours, processing estates and marketing channels to ensure quick transport of products to international markets like Bangkok and Singapore is needed.Introduction of factory/mother vessel(s) in the open sea itself is an alternative to development of on land facilities. Collection of fresh fish catches and development of high value Sashimi grade products will be possible. Considering the high investments that will be required for such ventures, establishment of special economic zone can be considered.



Fig 1. Landing trend of LP resources along Andaman-Nicobar area (Data source: Dept. of Fisheries, UT of Andaman & Nicobar)